

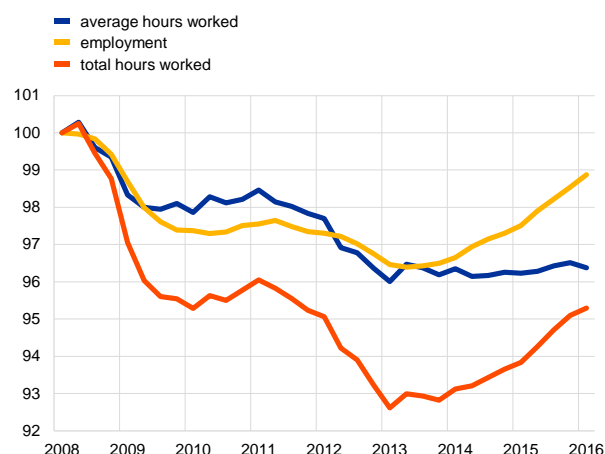
## 6 Factors behind developments in average hours worked per person employed since 2008

**Over the course of the euro area recovery, average hours worked per person employed have remained broadly unchanged, after falling significantly during the crisis.** The total amount of labour input used by firms decreased considerably between the first quarter of 2008 and the second quarter of 2013, and the decline was more significant in terms of total hours worked than in terms of headcount employment. Underlying these developments was a decrease in average hours worked per person, which then remained flat during the recovery (see Chart A). Although the decline in average hours worked observed since the start of the crisis has generally been considered a cyclical phenomenon, after 12 quarters of increasing activity average hours worked per worker have shown no sign of a cyclical recovery. This box examines the underlying causes of this phenomenon and finds that the increase in part-time work plays a significant role.

**Chart A**

Euro area employment, total hours worked and average hours worked per person

(index: Q1 2008=100; quarterly data; working day and seasonally adjusted)

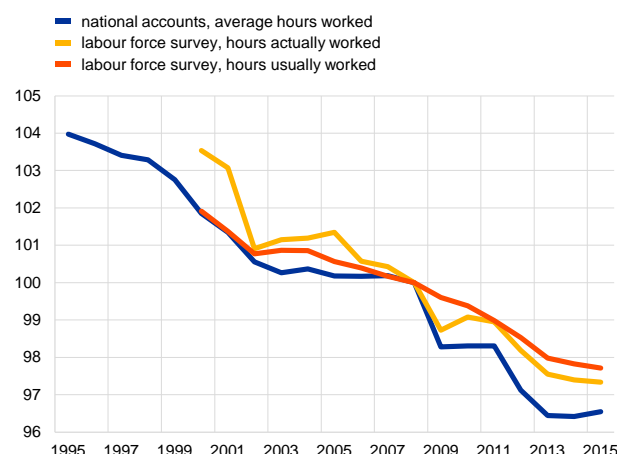


Sources: Eurostat and ECB calculations.

**Chart B**

Different measures of average hours worked per person

(index: 2008=100; annual data)



Sources: Eurostat and ECB calculations.

Notes: In the EU labour force survey, the number of hours usually worked refers to the hours which a person normally works per week. The number of hours actually worked covers all hours including extra hours, regardless of whether or not they were paid, that a person worked during the reference week.

### Hours worked were already following a downward trend even before the crisis.

For the euro area, average hours worked calculated on the basis of national accounts as well as those reported in labour force surveys have declined significantly over the last two decades (see Chart B). Historical data suggest that hours worked have been declining for a much longer period.<sup>27</sup> The decline in

<sup>27</sup> See, for example, Lee, S., McCann, D. and Messenger, J.C., *Working Time Around the World. Trends in working hours, laws and policies in a global comparative perspective*, International Labour Organisation, 2007 and Boppart, T. and Krusell, P., [How much we work: The past, the present, and the future](#), 2016.

average hours worked has been observed across euro area countries and a wide range of sectors.<sup>28</sup>

**In the euro area, average weekly hours actually worked have fallen by about one hour since 2008, mostly due to an increase in part-time employment.** A breakdown of the change in average hours worked (as measured by Eurostat's EU labour force survey) shows that the largest factor behind the recent decline in hours actually worked has been the increase in part-time employment (see Chart C). The ratio of part-time workers to all workers in the euro area increased from 19.0% to 21.7% between the first quarter of 2008 and the second quarter of 2013, and stood at 22.2% in the first quarter of 2016. This increase accounts for more than half of the decline in average hours worked. At the same time, the average hours worked of full-time workers also decreased after the start of the crisis (which can be explained by a fall in overtime and/or a rise in short-time working), recovered somewhat in 2010 and 2011 but have continued to decline since then, also contributing to the decline in average hours worked per person employed.

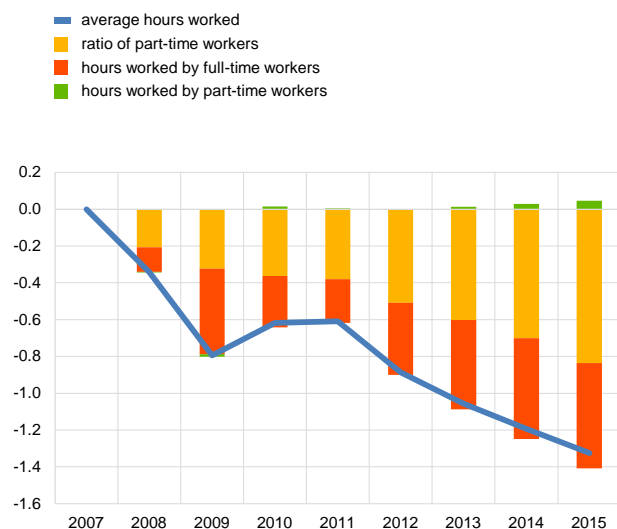
**The increase in part-time employment is strongly linked to developments in the services sectors.** Generally, part-time work is more prevalent in the services sectors than in industry and construction. The ratio of part-time workers to all workers is around 9% in industry and construction, while it is well above 20% in both market and non-market services. Since 2008 the part-time work ratio has increased in all sectors. However, the largest increase has been seen in the market services sector, which, also on account of its high share, has made the largest contribution to the increase in the part-time work ratio of the economy. This effect has also been amplified by the compositional change in employment involving a shift towards services (see Chart D). At the same time, part-time employment has also increased in industry and construction since 2008, but it has shown a more cyclical pattern and has declined somewhat during the recovery.

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<sup>28</sup> According to national accounts data, between the first quarter of 2008 and the first quarter of 2016 average hours worked declined in each of the four largest euro area countries with the exception of Spain. During this period, the decline in average hours worked in the euro area was also observed in all NACE sectors with the exception of information and communication.

**Chart C****Breakdown of the cumulative change in average hours worked in the euro area**

(cumulative change in average hours actually worked per week since 2007; share of part-time workers as a percentage; annual figures)

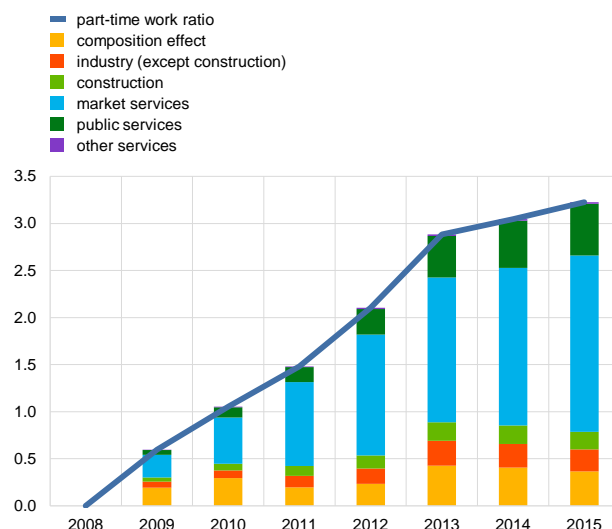


Sources: Eurostat and ECB calculations.

Notes: The average hours worked by full-time and part-time employees as well as the ratio of part-time workers are taken from the EU labour force survey. For the breakdown, the number of employees is taken from the national accounts.

**Chart D****Breakdown of the cumulative change in the part-time work ratio in the euro area showing changes within sectors and composition effect**

(cumulative change in the ratio of part-time workers since 2008, percentage points)



Sources: Eurostat, European Commission and ECB calculations.

Note: For the calculations, the number of employees was taken from the national accounts and the share of part-time workers by sector was taken from the labour force survey.

**At the euro area level, the growth in part-time employment seems to have been driven to a significant extent by employers' preference for this type of contract.** More than half of the increase in part-time employment since the first quarter of 2008 seems to reflect decisions taken on a voluntary basis, as workers willingly took advantage of new part-time opportunities. However, almost half is due to a rise in "underemployment"<sup>29</sup>, as workers involuntarily accepted part-time employment, although they would have liked to work more. The rise in part-time employment has been similar for both genders, although the prevalence of part-time work still remains much higher for women. Underemployment, however, is higher among male part-time workers and the rise in part-time employment was accompanied by a larger increase in male underemployment. Between the first quarter of 2008 and the first quarter of 2016, the proportion of workers classified as underemployed grew from 23% to 30% in the case of men, and remained broadly unchanged at around 20% in the case of women.<sup>30</sup>

**The increase in the part-time work ratio as well as the related decline in average hours worked appear to be at least partially structural, meaning that average hours worked may not return to their pre-crisis level.** Increased part-time employment seems to be driven by at least two structural changes: the

<sup>29</sup> "Underemployed part-time workers" is a term used by Eurostat to refer to persons working part-time who wish to work additional hours and are available to do so. Part-time work is recorded as self-reported by individuals. For more details, see <http://ec.europa.eu/eurostat/documents/3433488/5579744/KS-SF-11-057-EN.PDF>

<sup>30</sup> The figures reported here refer to the share of underemployed to part-time workers.

increasing share of market services and the resulting higher demand for part-time work, and the increased part-time labour supply (owing to, among other things, the increasing participation of women and those above 55). Unless there is a reversal of the long-term trend towards higher employment in services, the part-time employment ratio is likely to continue to increase and average hours worked to remain lower than the levels seen before the crisis.