The impact of the COVID-19 crisis on the euro area labour market for men and women

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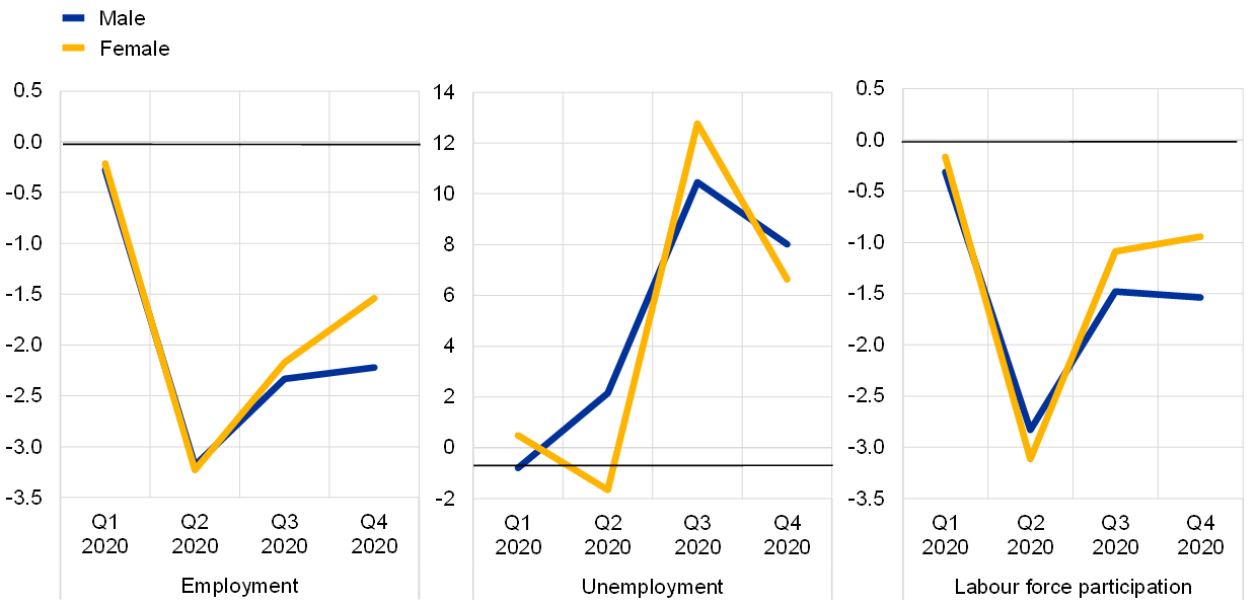
In the euro area, based on data available up to the fourth quarter of 2020, the coronavirus (COVID-19) crisis led to a decline in the labour force, a fall in employment and an increase in unemployment, with different developments for men and women across time.[1] Employment in the euro area decreased by around 3.1 million workers between the fourth quarter of 2019 and the fourth quarter of 2020 (Chart A). Around 1.9 million of these workers are estimated to be men and roughly 1.2 million are estimated to be women. This implies a total decline in employment of 2.2% for men and 1.5% for women over this period.[2] Unemployment increased by 0.9 million over the same period, with 495,000 men and 388,000 women becoming unemployed. In total, there was an 8.0% increase in male unemployment and a 6.6% increase in female unemployment between the fourth quarter of 2019 and the fourth quarter of 2020. The percentage rise in unemployment during this period peaked in the third quarter of 2020, at 10.5% for men and 12.8% for women. Then, during the fourth quarter of 2020, the number of women unemployed decreased more than the number of men unemployed. The large decline in employment was not accompanied by corresponding increases in unemployment for either gender, with 2.2 million people becoming inactive between the fourth quarter of 2019 and the fourth quarter of 2020, of which 1.4 million were men and 0.8 million were women. While female labour force participation was more affected during the first wave of the pandemic, up to the second quarter of 2020, it recovered at a faster pace during the second half of the year.

Chart A

Changes in euro area employment, unemployment and labour force participation for men and women during the COVID-19 crisis

(percentages)



Sources: Eurostat, EU labour force survey and ECB staff calculations.
Notes: The chart shows the percentage change in the number of employed and unemployed workers across gender between the fourth quarter of 2019 and each quarter of 2020. The change in labour force participation is calculated accordingly. The labour force is calculated as the sum of employed and unemployed workers.

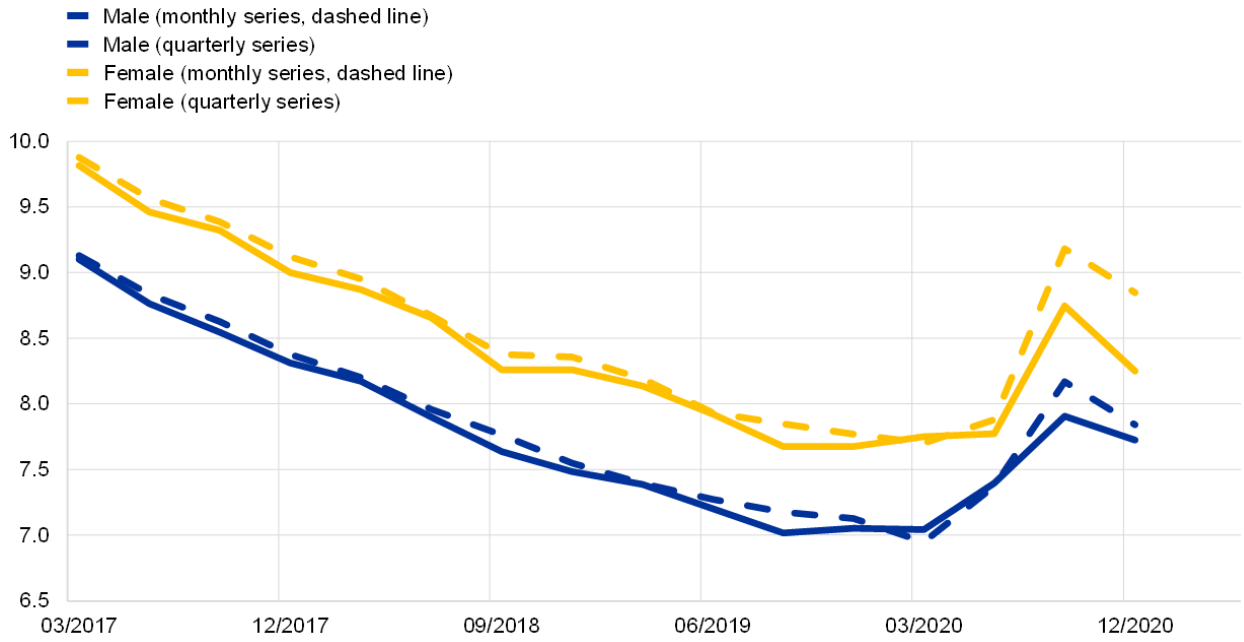
The unemployment rate for women is higher than that for men, but there is some uncertainty about the size of the gap between female and male unemployment rates (Chart B). The unemployment rate for women is higher than that for men, standing at 8.3% in the fourth quarter of 2020, compared with 7.7% for men. This is not a new development: in the fourth quarter of 2019, before the COVID-19 crisis hit, the unemployment rate was 7.7% for women and 7.1% for men. The female-male unemployment gap thus stood at 0.6 percentage points in the fourth quarter of 2019 and at 0.5 percentage points in the fourth quarter of 2020.[3] The female-male unemployment rate gap decreased in the second quarter of 2020 before increasing again in the third quarter. However, there is some uncertainty on its path after this point. This uncertainty stems from the use of different statistical indicators from the EU labour force survey (namely monthly versus quarterly time series) and from the ongoing statistical reclassification of workers in job retention schemes.[4] According to Eurostat, quarterly time series are more robust but less timely than monthly time series. Based on the monthly time series, the female-male unemployment gap remained broadly unchanged in the fourth quarter of 2020, with the female unemployment rate being 1 percentage point higher than the male unemployment rate. By contrast, the quarterly time series suggests that the female-male unemployment gap decreased in the fourth quarter of 2020, with the female unemployment rate 0.5 percentage points higher than the male unemployment rate.

Chart B

Gap in female-male unemployment rates – quarterly versus monthly statistics

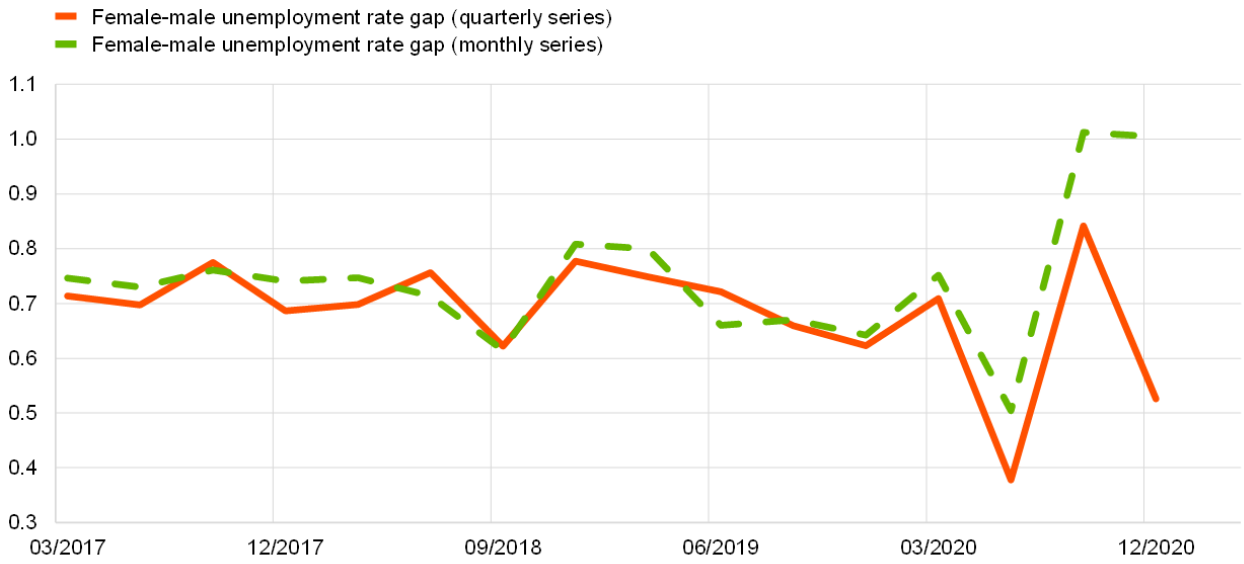
a) Unemployment rate

(percentages)



b) Female-male unemployment rate gap

(percentage points)



Sources: Eurostat, EU labour force survey and ECB staff calculations.
Notes: Data with different time frequencies give a different impression of the gap between the female and male unemployment rates. The increased labour market volatility during the pandemic, which can be attributed to the number of people leaving the labour force and the extensive use of job retention schemes, may affect these unemployment gaps. The latest observations are for March 2021 for the monthly time series and the fourth quarter of 2020 for the quarterly time series.

Preliminary evidence suggests that both men and women benefited considerably from the widespread use of job retention schemes. The number of workers citing temporary lay-offs as a reason for being absent from work over a given week is broadly similar across gender, with women accounting for 49.4% of workers laid off in EU Member States in the fourth quarter of 2020. This indicator can be considered a proxy for the number of workers in job retention schemes who are working zero hours.[5] The widespread use of job retention schemes has broadly supported employment and protected jobs during the pandemic. The number of temporary lay-offs peaked at 38.9% of the total number of absences from work in the second quarter of 2020 and plateaued at 14.1% in the fourth quarter.[6] Moreover, the female share of workers temporarily laid off increased from an average of 34.7% between 2006 and 2019 to 45.7% in the first quarter of 2020, before increasing further to stand at 49.4% in the fourth quarter of 2020. [7]

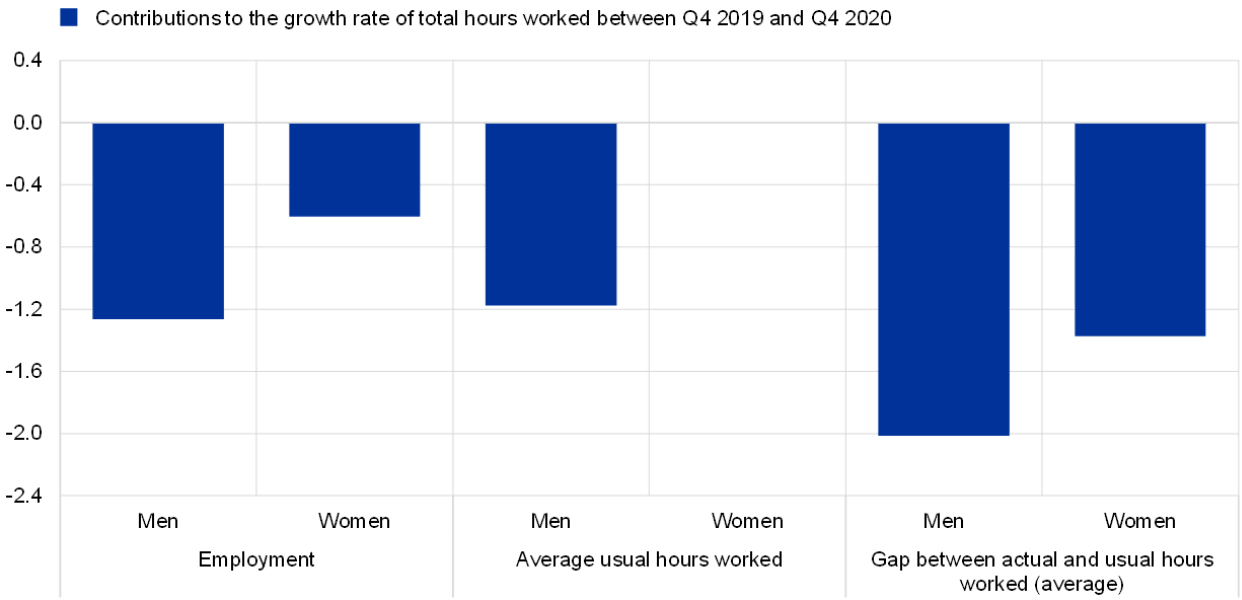
Analysing total hours worked can provide an insight into the different factors affecting labour market developments across gender during the COVID-19 crisis. Total hours worked decreased by 6.4% between the fourth quarter of 2019 and the fourth quarter of 2020. Men accounted for 4.4 percentage points of this decrease and women 2.0 percentage points. For men, the decline in employment was responsible for 1.3 percentage points of the decrease in total hours worked, with the decline in average hours worked accounting for the remaining 3.1 percentage points. For women, these factors contributed 0.6 percentage points and 1.4 percentage points respectively. The pronounced decline in average hours worked by gender can be further analysed by breaking down the changes according to usual hours worked (interpretable as contractual hours) and actual hours worked.[8] The gap between actual hours worked and contractual hours worked can thus provide additional information on ad hoc factors driving the decline in total hours worked for men and women during the COVID-19 pandemic.

The decline in average contractual hours worked accounts for one-third of the decline in average hours worked for men, whereas contractual hours worked have remained broadly unchanged for women (Chart C). The decline in contractual hours worked by men accounts for 1.2 percentage points of the decline in total hours worked between the fourth quarter of 2019 and the fourth quarter of 2020, while contractual hours worked by women remained broadly unchanged during this period.[9] Changes in contractual hours are mostly driven by composition effects, which differ across gender. Preliminary data from the EU quarterly labour force survey suggest that women saw a stronger decline in part-time employment and in the number of permanent employees than men. Conversely, for men there were more pronounced declines in the number of people working full-time and in temporary employment, and a stronger increase in the number of underemployed part-time workers. The broad absence of changes in usual hours worked by women is related to composition effects such as the decline in part-time employment, which has affected women to a larger extent than men.[10] As part-time employees work fewer hours compared with their full-time counterparts, this induced a composition effect that increases the number of contractual hours worked. By contrast, the decline in usual hours worked by men was driven by a relatively stronger decline in the number of men working full-time and by an increase in the number of underemployed part-time workers.[11]

Chart C

Contributions of employment, usual hours worked and actual hours worked to changes in total hours worked

(percentage points)



Sources: Eurostat, EU labour force survey and ECB staff calculations.
Note: The contributions of employment, usual hours worked, and the gap between actual and usual hours worked refer to the period between the fourth quarter of 2019 and the fourth quarter of 2020.

The gap between actual and usual hours worked disproportionately contributes to the decline of total hours worked across gender, offering some insight into labour supply decisions at the household level. The gap between actual and usual hours worked accounts for around two-thirds of the decline in average hours worked for men and for all of the decline in average hours worked for women between the fourth quarter of 2019 and the fourth quarter of 2020. Changes in the gap between actual and usual hours worked by men contributed 2.0 percentage points to the decline in total hours worked, whereas changes in the gap between actual and usual hours worked by women contributed 1.4 percentage points.[12] Job retention schemes incentivised labour hoarding and allowed for flexibility through adjustments in hours worked, leading to a larger gap between actual and contractual hours worked for both men and women.[13] This suggests that the disproportionate declines in average actual hours worked are in part also driven by ad hoc partial reductions in the working time of employed workers, which can affect women more than men.[14] This outcome can also provide insights into labour supply decisions at the household level. These are explored in more detail by Fuchs-Schündeln et al.[15], who show that an increase in the need for in-person childcare following the closure of schools and care services in response to the COVID-19 pandemic could affect up to 35% of the workforce (and up to 12% of usual hours worked) in Europe.

The decline in total hours worked was linked to heterogeneous sectoral developments across gender (Chart D).[16] Both men and women were significantly affected by the pandemic when considering

changes in total hours worked between the fourth quarter of 2019 and the fourth quarter of 2020 across sectors. The effects of the pandemic were relatively stronger for men in the trade, transportation, and professional services sectors, when compared with the share of total hours worked by men in each sector in the fourth quarter of 2019. By contrast, contributions to the decline in total hours worked were relatively higher for women in the accommodation and food services, administrative and support services, and recreation and personal services sectors. In most sectors, the decline in total hours worked was driven by a decline in employment and by a decline in average hours. Employment losses between the fourth quarter of 2019 and the fourth quarter of 2020 were mainly concentrated in the wholesale and retail trade and transportation sectors for men and in the recreation and personal services sectors for women. Conversely, the employment gains in public administration and in education were tilted towards female workers. The fall in average hours worked complemented the sectoral asymmetry and within-sector gender heterogeneity in the observed declines in employment and accounted for most of the decline in total hours worked.

Chart D

Sectoral contributions to the growth in employment and average hours worked by gender

(percentage points)

Sources: Eurostat, EU labour force survey and ECB staff calculations.
Notes: The sectoral contributions to employment and average hours worked refer to the period between the fourth quarter of 2019 and the fourth quarter of 2020. These are constructed under the previously described bottom-up approach, which maps the gender and sectoral composition in the EU labour force survey to the sectoral composition for employment and hours worked in the national accounts data. “Other services” comprises the recreation and personal services sectors.

In summary, this box documents the impact of the COVID-19 crisis on the euro area labour market based on data available up to the fourth quarter of 2020, highlighting that both men and women were significantly affected. More men than women lost their jobs and became inactive during the COVID-19 crisis, while job retention schemes seem to have broadly protected employment and significantly benefited workers from both genders. The decline in average hours worked was somewhat more pronounced for men than for women. However, the factors behind this decline differed across gender. The decline in average hours worked for men was driven in part by a decrease in contractual hours, whereas ad hoc reductions in hours worked, which increase the gap between the actual hours worked and the contractual hours of work, contributed to the decline in average hours worked for both men and women. These developments can be attributed to the asymmetric sectoral impact of the COVID-19 crisis.[17] The effects documented in this box only refer to the aggregate impact on employment, unemployment, labour force participation and hours worked across gender, and do not take into account welfare losses that workers incur when another member of their household loses their job. Moreover, Bluedorn et al.[18] argue that the extent and persistence of a differential employment response for women during the COVID-19 crisis varies significantly across countries and that gender differences in employment are typically short-lived.

1. The employment and total hours worked aggregates are based on the Eurostat national accounts data, whereas the information on unemployment and the gender composition of employment and hours worked are retrieved from Eurostat's quarterly EU labour force survey. The gender-specific effects on employment and hours worked are mapped at the sectoral and aggregate levels from the labour force survey to the national accounts data. This implicitly assumes that the gender distribution in the euro area as calculated using the labour force survey also broadly holds for the national accounts data. In this box, the terms "usual hours worked" and "contractual hours worked" are used interchangeably.

2. Up to the third quarter of 2020, the decline in employment for men and women was broadly equal at around 2.3% for men and 2.2% for women cumulatively from the fourth quarter of 2019.

3. More precisely, the female-male unemployment gap was 0.53 percentage points in the fourth quarter of 2020 because the unemployment rate calculated to two decimal places was 8.25% for women and 7.72% for men.

4. The COVID-19 crisis has led to large changes in labour force participation; monthly labour market indicators across gender do not fully capture these changes and are revised ex post. The uncertainty regarding the size of the female-male unemployment rate gap arising from the frequency of the dataset is a temporary issue that is expected to be addressed in the near future with the implementation of the Integrated European Social Statistics methodology.

5. See Gómez, A.L. and Montero, J.M., "Impact of lockdown on the euro area labour market in 2020 H1", *Economic Bulletin*, Issue 4, Banco de España, 2020. For a comprehensive assessment of the impact and

widespread use of job retention schemes, see the article entitled "The impact of the COVID-19 pandemic on the euro area labour market", *Economic Bulletin*, Issue 8, ECB, 2020.

6. The COVID-19 crisis substantially increased the number of temporary lay-offs in the EU. Between 2006 and 2019 they accounted for only 2.7% of the total number of absences from work on average.

7. In Germany, the Federal Employment Agency provides a gender breakdown of the number of workers on short-time work schemes ("Kurzarbeit"). These data are available up to October 2020 and confirm that both men and women were greatly supported by job retention schemes in the country. However, they also suggest that men are more likely to be in Kurzarbeit than women, with the female share of workers in Kurzarbeit peaking at 46.1% in March 2020 before progressively declining to 37.4% in October 2020. Thus, there may be some country-level heterogeneity in the relative impact of job retention schemes across gender.

8. Actual hours worked include (i) the contracted hours of work, and (ii) paid and unpaid overtime and hours worked in additional jobs. Actual hours worked exclude time not worked because of, among other things, public holidays, annual paid leave, own illness, injury and temporary disability, maternity leave, parental leave, schooling or training, slack work for technical or economic reasons, strikes or labour disputes, bad weather and compensatory leave.

9. Average usual hours worked by women did not change between the fourth quarter of 2019 and the fourth quarter of 2020, remaining at 32.9 hours per week.

10. The gender-specific declines in part-time employment during the COVID-19 crisis broadly correspond to the gender composition of part-time employment in the fourth quarter of 2019.

11. Albeit to a much lesser extent, the decline in male self-employment also contributed to the decline in contractual hours worked. Self-employed workers account for around 14% of total employment and for 18.5% of total hours worked. From this, it can be said that self-employed people work, on average, longer hours than employees. Self-employed workers represent around 17% of total employment for men and around 10% for women. Despite the low share of self-employment in total employment for both men and women, job losses for self-employed men can be important for the decline in contractual hours worked, as (i) self-employed workers work, on average, longer hours than employees, and (ii) self-employed men work, on average, longer hours than self-employed women, making the composition effect stronger for men. For more details, see Eurostat, "Hours of work – annual statistics", May 2020.

12. These percentage point contributions take into account gender-specific base effects, namely the fact that women work around 40% of the total hours worked in the euro area. As a robustness check, the same exercise was re-run using a bottom-up approach that maps the growth rate of employment and hours worked between the EU labour force survey and the national accounts data at the sectoral level. Interestingly, the differences in the contributions of employment and average hours worked between men

and women are smaller under these alternative calculations. In this case, the gender contributions to the decline in total hours worked amount to the following: (i) for employment, -1.0 percentage points for men and -0.9 percentage points for women; and (ii) for average hours worked, -2.7 percentage points for men and -1.9 percentage points for women. This would then affect the quantitative contribution of changes in the gap between actual and usual hours worked across gender, making it weaker for men and stronger for women. Therefore, sector composition effects could be incorporated to better qualify the differential labour market impact of the COVID-19 crisis by gender.

13. Labour hoarding is the part of labour input which is not fully utilised by a company during its production process at any given point in time. Labour hoarding can potentially help firms avoid re-hiring and training costs when economic conditions improve after a recession.

14. The contribution of the gap between average actual hours worked and contractual hours worked by men to the decline in total hours worked is also affected by the stronger increase in the number of men being underemployed part-time workers between the fourth quarter of 2019 and the fourth quarter of 2020.

15. Fuchs-Schündeln, N., Kuhn, M. and Tertilt, M., "The short-run macro implications of school and child-care closures", *IZA Discussion Paper Series*, No 13353, IZA Institute of Labor Economics, Bonn, June 2020.

16. The sectoral and gender effects of the COVID-19 crisis on employment and average hours worked documented in Chart D are constructed using the bottom-up approach described previously.

17. For more on this, see the box entitled "High-frequency data developments in the euro area labour market", *Economic Bulletin*, Issue 5, 2020, which offers an early preview of the sectoral heterogeneity of the COVID-19 crisis on the labour market from a high frequency data perspective. For a comprehensive assessment of the impact of COVID-19 on the euro area labour market, including the widespread use of job retention schemes, see the article entitled "The impact of the COVID-19 pandemic on the euro area labour market", *Economic Bulletin*, Issue 8, ECB, 2020.

18. Bluedorn, J., Caselli, F., Hansen, N-J. and Mendes Tavares, M., "Gender and Employment in the COVID-19 Recession: Evidence on 'She-cessions'", *IMF Working Paper Series*, No 2021/095, March 2021.