

# Economic sectors at risk due to COVID-19 disruptions: will men and women in the EU be affected similarly?

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## Abstract

In this note we assess the economic risk male and female workers face due to the COVID-19 pandemic in Europe. We apply two approaches: one developed by the International Labour Organization (ILO) and one by the European Centre for the Development of Vocational Training (CEDEFOP).

Both approaches show that an alarmingly **large number of EU workers are potentially negatively affected by COVID-related employment problems**. The extent of the problem, as well as the relations between the situation of males and females are however rather different across the two calculations. With Manufacturing listed among the high-risk sectors, the **ILO-based estimates indicate that altogether almost 89 million jobs in the EU are in high-risk sectors, with woman employed in 43 per cent of these**. CEDEFOP, on the other hand, is not considering Manufacturing as being particularly exposed to the crisis in Europe, and therefore calculations based on the **CEDEFOP classification suggest** that altogether, "only" **44 million jobs are in high-risk sectors, 51 per cent of which are however filled by female workers**. Considering the share of employees working in badly hit sectors, the relative risk of female employees is much higher than that of men. Altogether **25 per cent of employed women while only 20 per cent of employed men work in these sectors in the whole EU**. Similar or even stronger disparities are found within the majority of the Member States.

## 1 Introduction

The COVID-19 crisis is having a dramatic impact on the world's workforce. The labour market disruptions caused by the pandemic affect all; however, the reduction in economic activity is uneven in different economic sectors, regions of the world and groups of people.

Several studies and articles have warned about the **disproportionate social and economic impact this crisis can have on women**<sup>1</sup> suggesting that it threatens to slow down the pace of move towards gender equality or even undo some of the gains. The concerns are manifold, one important aspect being that COVID-19 is likely to heavily affect women workers, as a large proportion of them are based in sectors severely affected by the pandemic.

This note provides a first **detailed assessment of this claim** looking at the 27 EU Member States. It is using and comparing two different sectoral classifications, both based on the economic sectors' vulnerability to the COVID-19 crisis: one published by the International Labour Organization (ILO) and the other one by the European Centre for the Development of Vocational Training (CEDEFOP). Although using different methods, both classifications aim at assessing the economic sectors' exposure to the crisis from the perspective of the economic – rather than health-related – risks, which will ultimately also affect the work force employed in the given sector.

Our aim is neither to evaluate these two classifications nor to try to understand the roots of their diverging conclusions. Instead we aim at applying both available tools for a well-informed assessment of the issue of gender imbalances in the economic effects of COVID-19 in the EU. Undoubtedly, making this assessment at the sectoral level has several limitations that arise from the high level of aggregation and the heterogeneity of jobs carried out within one economic sector. One of the important consequences is that even within economic sectors classified as economically high-risk, large groups of workers are found whose activity was considered to be critical (or essential) during the pandemic. As in some of these groups – e.g. among salespersons in supermarkets in the Wholesale and retail trade sector – there is a high concentration of women<sup>2</sup>, the average unemployment risk in certain sectors might be lower for females than for males. At the same time there can also be other factors unevenly affecting male and female workers within the same sector, and this approach can not account for these.

The rest of this note is structured as follows. Starting with the analysis of ILO, we first present their classification. Second, we link it to the gender-distribution of workers across the economic sectors in the EU to calculate the share of employed men and women potentially affected by the crisis according to the ILO approach. Then we repeat the same exercise applying the classification of CEDEFOP. We conclude by comparing the two sets of results.

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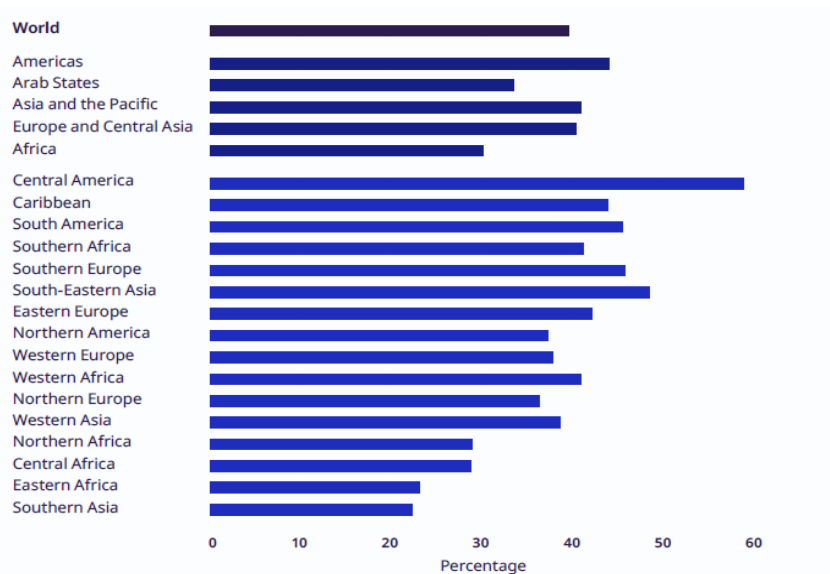
<sup>1</sup> See e.g. Alon, T., Doepke, M., Olmstead-Rumsey, J., & Tertilt, M. (2020). [The Impact of COVID-19 on Gender Equality](#) and Blaskó, Z., Papadimitriou, E., Manca, A. R., European Commission, Joint Research Centre. (2020). [How will the COVID-19 crisis affect existing gender divides in Europe?](#)

<sup>2</sup> EUROSTAT reports that in 2019, women represented 63 per cent of the workers in retail sale of food, beverages and tobacco (<https://ec.europa.eu/eurostat/web/products-eurostat-news/-/DDN-20200522-2>)

## 2 High-risk sectors – the classification of the ILO

The analyses presented by the ILO<sup>3</sup> show that globally, almost 40 per cent of all employed women work in sectors that are hit hard by the COVID-19 crisis, compared to 37 per cent of employed men. Figure 1 presents the share of women working in such sectors globally and across regions of the world.

Figure 1. Share of women working in sectors hit hard by the COVID-19 crisis, world and by region and sub region (percentage).



Source: ILO, ILO Monitor: [COVID-19 and the World of Work – Fifth edition](#), 30 June 2020, p.9.

The ILO classifies the sectors according to the probable size of the impact that the crisis is likely to have on them based on:

"(1) global firms' output indices;

(2) investment in fixed assets, domestic trade, and foreign trade (with particular reference to China to capture the effects of the shock during the period December 2019–February/March 2020); and

(3) business expectation."<sup>4</sup>

On this basis they identify as the globally hardest-hit sectors the followings:

- Accommodation and food services,
- Manufacturing,
- Wholesale and retail trade, and
- Real estate and business activities.

The ILO's classification of all sectors can be found in Table 1.

<sup>3</sup> [ILO Monitor: COVID-19 and the World of Work – Fifth Edition, 30 June 2020](#) and [The COVID-19 response: Getting gender equality right for a better future for women at work](#)

<sup>4</sup> ILO, [ILO Monitor: COVID-19 and the World of Work – Second Edition](#), 7 April 2020. page 11

Table 1. Impact of the crisis on the economic sectors. ILO.

Economic sector	Impact of the crisis on economic output
Wholesale and retail trade; repair of motor vehicles and motorcycles	High
Manufacturing	High
Accommodation and food services	High
Real estate; business and administrative activities	High
Arts, entertainment and recreation, and other services	Medium- high
Transport, storage and communication	Medium- high
Construction	Medium
Financial and insurance services	Medium
Mining and quarrying	Medium
Agriculture, forestry and fishing	Low- medium
Human health and social work activities	Low
Education	Low
Utilities	Low
Public administration and defense; compulsory social security	Low

Source: See ILO, [ILO Monitor: COVID-19 and the World of Work – Second Edition](#), 7 April 2020, p. 7.

As Figure 1 indicates, the ILO provides its estimates jointly for Europe and Central Asia, then for geographical regions of Europe, such as Southern, Northern, Western and Eastern Europe separately. Their calculations indicate that – unlike in several parts of the world, including Central America, South-Eastern Asia and South America – in no European region does the share of affected female employees exceed the respective share of men.

To attain the EU perspective and to get a detailed overview of the European situation, we linked the ILO's sector-classification to Eurostat data on employment by sex and economic sector (NACE, Rev.2) and by country.<sup>5</sup> We did so after confirming the correspondence<sup>6</sup> between the ISIC Rev.4<sup>7</sup> codes used by ILO and the NACE Rev.2<sup>8</sup> codes used by EUROSTAT. The Eurostat data rely on EU Labour Force Survey data from the last quarter of 2019 before the covid-19 period started but close enough to it. The data refer to the age group 15-64.

Our results confirm that **the overall EU situation is somewhat different from the global one**. Women in the EU are affected to an extent similar to the global average with 42 per cent of them working in the hard-hit sectors. Men's share is however even larger as it reaches 48 per cent (see Figure 2) and accounts for roughly 51 million jobs compared to 38 million women's jobs (Annex -Table A.1). While large numbers of employees from both genders are potentially severely affected by the crisis, **more male than female employees are at risk according to the evaluation of the ILO**.

<sup>5</sup> EUROSTAT data table [lfsq\\_egan2\\_codes.C.G.I.L.M.N\\_age\\_group\\_15-65](#).

<sup>6</sup>ILO- ISIC Rev.4 correspondence of the high- risk sectors with NACE Rev.2 classification:

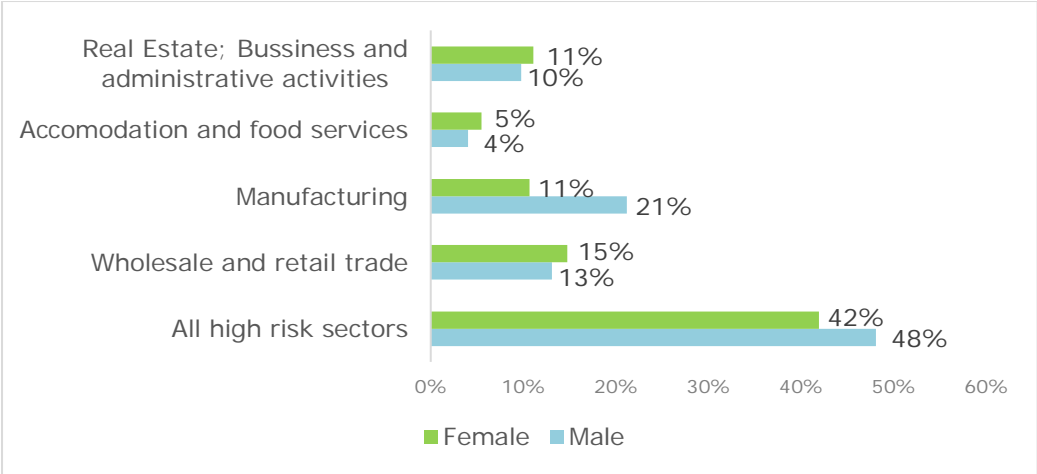
Wholesale and retail trade; repair of motor vehicles and motorcycles - G, Manufacturing - C, Accommodation and food services - I, Real estate; business and administrative activities - L, M, N

<sup>7</sup> [https://unstats.un.org/unsd/publication/seriesM/seriesm\\_4rev4e.pdf](https://unstats.un.org/unsd/publication/seriesM/seriesm_4rev4e.pdf)

<sup>8</sup> <https://ec.europa.eu/eurostat/documents/3859598/5902521/KS-RA-07-015-EN.PDF>



Figure 2. Men and women employed in hard-hit sectors in the EU based on the classification of the ILO.

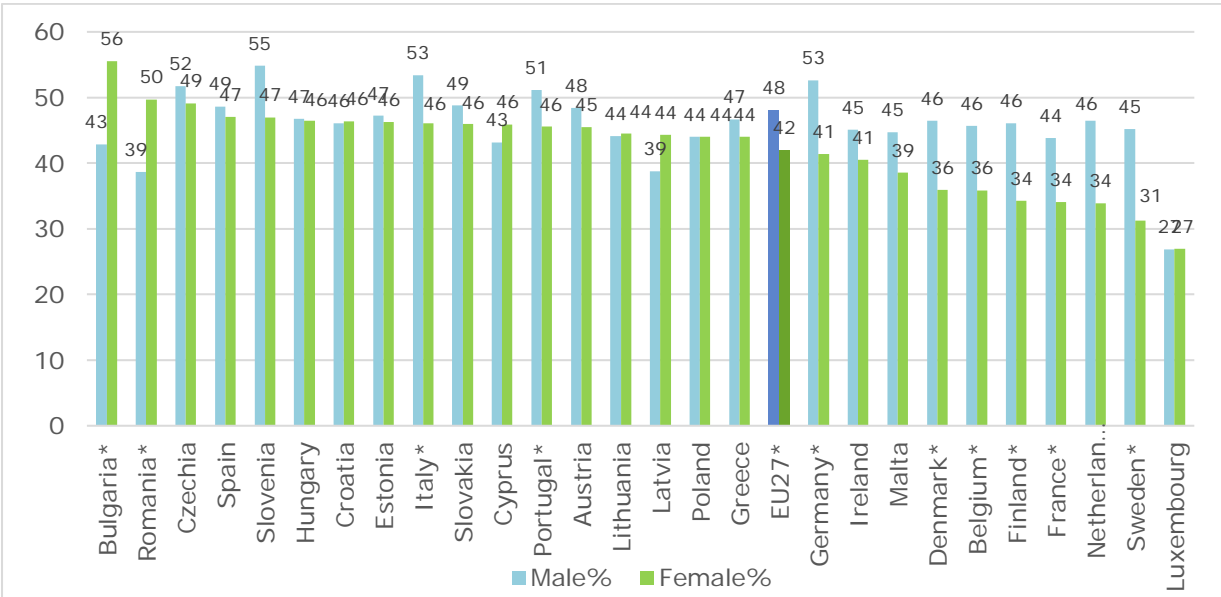


*Note: All differences in percentages between men and women are significant at significance level 0.05. Employment data refer to the age group 15-64, 2019 Q4. Source: Joint Research Centre, calculations based on EU-LFS and ILO classification.*

The dominance of men in the hardest hit sectors in the EU is due to the large number of males working in Manufacturing, with a total share of 21 per cent, compared to 11 per cent of women employed in the same sector. From Figure 2, it is evident that all hard-hit sectors apart from Manufacturing employ slightly larger shares of women than men.

However, gender distribution in the sectors **varies across the EU countries** and as a consequence, men and women are not necessarily hit to a similar extent as in the EU as a whole. While in the majority of countries men are more likely to work in high risk sectors – Belgium, Denmark, Germany, France, Italy, the Netherlands, Portugal, Finland and Sweden being the most notable examples – **in Bulgaria and Romania the share of women workers in high-risk sectors is much higher** than that of men. In these two countries 56 per cent and 50 per cent of women respectively work in high risk sectors, while the respective proportions for men are 43 and 39 per cent. Figure 3 shows the shares of men and women in hard-hit sectors in each European country.

Figure 3. Men and women employed in hard-hit sectors (ILO classification) in the EU countries.



Note: In asterisk (\*) countries where differences in percentages between men and women are significant at significance level 0.05. Employment data refer to the age group 15-64, 2019 Q4.  
 Source: Joint Research Centre, 2020, calculations based on EU-LFS and ILO classification.

### 3 High-risk sectors – the classification of CEDEFOP

While the classification tool offered by ILO is undoubtedly a valuable one to assess the global situation, it is not the only possible perspective. The European reality could be slightly different from the global one, and that is depicted in a recent study<sup>9</sup> by CEDEFOP, the European Centre for the Development of Vocational Training. CEDEFOP used a skills-based approach to assess the potential exposure of EU jobs and identify the industries and occupations most likely to be affected by the Covid-19 crisis. They classify jobs according to their exposure to disease, physical proximity to co-workers or contact with others, taking into consideration the ability to do remote work as a risk-mitigating factor. Based on these criteria they identify sectors according to their risk of COVID-19 disruption. Their classification can be seen in Table 2. CEDEFOP estimates that “about 45 million jobs in the EU-27 labour market are potentially at high risk of reduced work hours, pay, lay-offs and continued work disruption in the post coronavirus era”<sup>9</sup>.

Table 2. Economic sectors in EU, categorised according to the risk level of COVID-19-related exposure. CEDEFOP.

Economic sector	Risk of Covid-19-related exposure
Accommodation and food services	Very high risk
Wholesale and retail trade, sales, shop work	Very high risk
Social and personal services	Very high risk
Education or health services	Some, high risk
Agriculture, horticulture, forestry or fishing	Some, high risk
Cultural industries (arts, entertainment)	Some, high risk
Transportation or storage	Some, high risk
Financial, insurance or real estate services	Some, low risk
Supply, management or treatment of water	Some, low risk
Public administration and support services	Some, low risk
Construction	Some, low risk
Manufacturing	Some, low risk
Supply of gas or electricity, mining	Very low risk
Professional and scientific services	Very low risk
Information and communication technology	Very low risk

Source: CEDEFOP, *EU jobs at highest risk of Covid-19 social distancing: Is the pandemic exacerbating the labour market divide?* p.18.

According to this classification, in the European Union and the UK, the sectors that are in very high risk due to the crisis are:

- Accommodation and food services,
- Wholesale and retail trade and
- Social and personal services.

<sup>9</sup>Pouliakas, K; Branka, J (2020). [EU jobs at highest risk of Covid-19 social distancing: Is the pandemic exacerbating the labour market divide?](#) pp.19

The list is similar to the one by the ILO, with the important exception of Manufacturing and Real estate not included by CEDEFOP and with small variations also in the other subcategories<sup>10</sup>. The CEDEFOP methodology classifies Manufacturing in the EU as a sector at low risk due to COVID-19 disruptions.

Linking this time the CEDEFOP sector-classification to EUROSTAT data<sup>11</sup> we find that roughly **23 million or 25 per cent of employed women in European Union work in high risk sectors in comparison to 21 million or 20 per cent of employed men**. In all three sectors, women's shares are larger compared to men's (see Figure 4) showing a **clear female disadvantage**. Of all the women in high-risk sectors, almost 15 per cent are employed in the Wholesale and retail, and an additional 10 per cent more or less equally distributed across Social and personal services and Accommodation and food services.

Figure 4. Men and women employed in very high risk sectors in the EU based on the classification by CEDEFOP.



Note: Employment data refers to the age group 15-64, 2019 Q4.

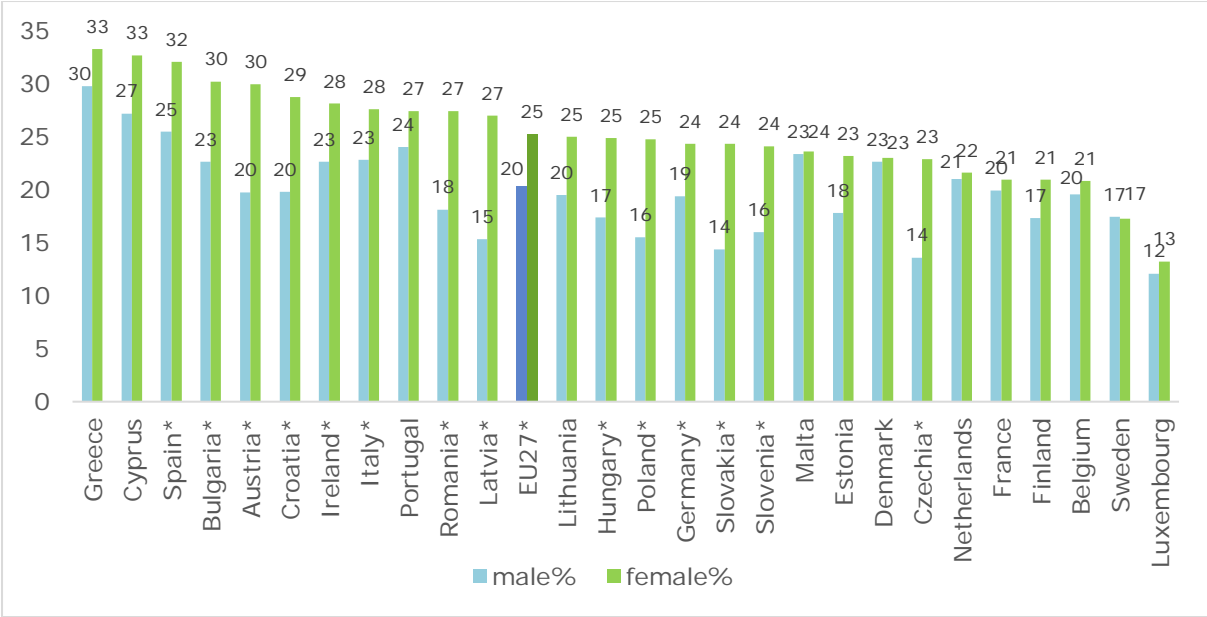
Source: Joint Research Centre, 2020, calculations based on EU-LFS Q42019 and CEDEFOP classification.

Again, **the European map is more diversified**, still showing notable gender-disparities in most parts. In some countries the relative risk of women compared to that of men reaches 150 per cent as can be observed in Austria, Romania, Latvia, Hungary, Poland, Slovakia, Slovenia and Czechia. In most of the countries with a particularly large female-disadvantage, a much bigger share of women are working in vulnerable, high risk sectors, than the EU average of 25 per cent. In the other Member States women's disadvantage is smaller or non-existent (France, Belgium and Sweden), while **there is no European country where men are found to be more at risk than women** according to the classification of CEDEFOP. Figure 5 shows that in most cases, countries where large numbers of women are working in high risk sectors are also those where the difference in shares compared to men is also bigger.

<sup>10</sup> CEDEFOP correspondence of the high- risk sectors with NACE Rev.2 classification: Accommodation and food services - I, Wholesale and retail trade, sales, shop work - G, Social and personal services - S, N79, N80, N82. It is beyond the scope of the present brief to identify the exact sources of these major differences in the two classifications.

<sup>11</sup> EUROSTAT data tables lfsq\_egan2 codes: G, I, S, lfsq\_egan22d codes: N79, N80, N82, age group 15- 16 years old.

Figure 5. Men and women employed in very high risk sectors (CEDEFOP classification) in the EU countries.



Note: In asterisk (\*) countries where differences in percentages between men and women are significant at significance level 0.05. Employment data refer to the age group 15-64, 2019 Q4.  
 Source: Joint Research Centre, 2020, calculations based on EU-LFS and CEDEFOP classification.

Delving into the three individual sectors, Accommodation and food services, Wholesale and retail trade and Social and personal services (Table 3), we notice that in some countries the patterns across sectors are very similar to the EU average. In Austria, Czechia, Germany, Hungary, Poland and Spain all three sectors present significant differences between the male and female shares indicating that women are more at risk in all three sectors. In general, the Accommodation and food sector and the Social and personal services sector indicate more countries (14 and 13 respectively) with higher numbers of women than men at risk of reduced work hours, pay, lay-offs and continued work disruption. This is not to underestimate the Wholesale and retail sector where in ten countries, the shares of women at risk are higher than those of men and at the same time the absolute numbers of workers are really large, as can be seen from ANNEX –Table A.2.

Table 3. Male and female shares in EU countries per very high risk sector, CEDEFOP classification.

	Wholesale and retail trade, sales, shop work		Accommodation and food services		Social and personal services	
	Male	Female	Male	Female	Male	Female
<b>EU27</b>	<b>13%*</b>	<b>15%*</b>	<b>4%*</b>	<b>5%*</b>	<b>3%*</b>	<b>5%*</b>
Belgium	13%	13%	4%	4%	3%	5%
Bulgaria	<b>15%*</b>	<b>20%*</b>	<b>4%*</b>	<b>7%*</b>	4%	3%
Czechia	<b>9%*</b>	<b>14%*</b>	<b>3%*</b>	<b>5%*</b>	<b>2%*</b>	<b>4%*</b>
Denmark	16%	14%	4%	5%	3%	4%
Germany	<b>13%*</b>	<b>14%*</b>	<b>3%*</b>	<b>4%*</b>	<b>3%*</b>	<b>6%*</b>
Estonia	12%	15%	3%	5%	3%	3%
Ireland	13%	14%	6%	9%	4%	5%
Greece	18%	19%	9%	10%	<b>3%*</b>	<b>4%*</b>
Spain	<b>15%*</b>	<b>17%*</b>	<b>7%*</b>	<b>10%*</b>	<b>3%*</b>	<b>5%*</b>
France	13%	12%	4%	4%	<b>3%*</b>	<b>5%*</b>
Croatia	<b>12%*</b>	<b>18%*</b>	6%	8%	2%	3%
Italy	14%	14%	<b>5%*</b>	<b>7%*</b>	<b>4%*</b>	<b>6%*</b>
Cyprus	17%	17%	8%	10%	3%	6%
Latvia	12%	18%	<b>1%*</b>	<b>6%*</b>	2%	3%
Lithuania	16%	17%	<b>1%*</b>	<b>4%*</b>	2%	4%
Luxembourg	8%	7%	3%	3%	1%	3%
Hungary	<b>11%*</b>	<b>15%*</b>	<b>3%*</b>	<b>5%*</b>	<b>3%*</b>	<b>5%*</b>
Malta	13%	15%	9%	6%	1%	3%
Netherlands	15%	13%	4%	5%	<b>2%*</b>	<b>4%*</b>
Austria	<b>13%*</b>	<b>17%*</b>	<b>5%*</b>	<b>8%*</b>	<b>3%*</b>	<b>5%*</b>
Poland	<b>11%*</b>	<b>18%*</b>	<b>2%*</b>	<b>4%*</b>	<b>2%*</b>	<b>3%*</b>
Portugal	15%	14%	<b>6%*</b>	<b>8%*</b>	<b>3%*</b>	<b>6%*</b>
Romania	<b>12%*</b>	<b>20%*</b>	<b>2%*</b>	<b>4%*</b>	4%	3%
Slovenia	11%	15%	3%	6%	2%	3%
Slovakia	<b>9%*</b>	<b>15%*</b>	<b>3%*</b>	<b>6%*</b>	2%	4%
Finland	12%	10%	<b>2%*</b>	<b>5%*</b>	<b>3%*</b>	<b>5%*</b>
Sweden	12%	10%	3%	3%	<b>2%*</b>	<b>4%*</b>

Note: In asterisk (\*) differences in percentages between men and women that are significant at significance level 0.05. Employment data refer to the age group 15-64, 2019 Q4.

Source: Joint Research Centre, 2020, calculations based on EU-LFS and CEDEFOP classification.

## 4 Discussion

From the start of this crisis experts have argued<sup>12</sup> that the COVID-19 is very different from the “usual” downturns, when it typically affects males’ jobs more than females’. Previous studies have shown that men’s employment varies more strongly over the economic cycles than females’<sup>13</sup>, also because men’s jobs tend to be concentrated in economic sectors worse hit by economic crises.<sup>14</sup> The specific characteristics of the COVID-19 crisis, and in particular the social distancing measures, however, create a situation very different from the “usual” downturns and lead to a potentially very different relation between men’s and women’s exposure to the crisis.

While it is widely accepted that the massive negative impact of COVID-19 will be unevenly distributed across the various segments of the society, the exact effects are yet to be seen. In particular, we need to wait for the 2020 EU Labour Force Survey data to get a comprehensive picture of what temporal and longer term damages the crisis has made to the employment situation of men and women across Europe. Meanwhile we need to rely on preliminary sources, such as expert predictions on how the different parts of the economy are likely to be affected.

The present note uses two available resources that both aim at identifying the most vulnerable economic sectors during the pandemic. Both the **ILO** and **CEDEFOP** provide systematic, methodologically sound classifications of the economic sectors that allow us to assess – among many other things – the expected economic vulnerability of men and women to the crisis. The two organizations however **classify the economic sectors differently**, which in the end leads to qualitatively different conclusions with regard both to the size of the problem overall and to the gender disparities in the labour market impact of COVID-19.

According to the **ILO’s** classification, globally, women are at a somewhat higher risk of losing their jobs than men. **In the EU** however, the situation is the opposite, with a **considerably larger share of men than women working in the high-risk sectors**. This is mainly because the ILO classifies jobs in male-dominated **Manufacturing** as **being at high risk**. This assumption results in an alarmingly large number (89 million) of people working in a badly affected sector in the EU, which altogether employs 48 per cent of male workers and 42% of female workers. Based to this approach, **women’s employment** in Europe appears to be **more vulnerable** compared to men’s only **in Romania and Bulgaria** – mostly because in these two countries the share of men and women in Manufacturing is close to parity.

If we, however, apply the sectoral classification created by **CEDEFOP** for the EU and UK, we find that the European concerns about women’s increased vulnerability are justified. Our calculations show that on the European average roughly 44 million jobs can be found in high-risk sectors – potentially affecting 25 per cent of female employees and 20 per cent of males. The overall numbers are lower and also men’s share is smaller compared to the other estimates mainly because the set of high-risk sectors in this case does not include Manufacturing. Following this approach, we find that **in 14 EU Member States women’s employment is considerably more at risk, than that of men**. To these belong several Central and Eastern European countries, including Bulgaria, Croatia, Romania, Latvia, Hungary, Poland, Slovakia, Slovenia and Czechia, but also Spain, Austria, Ireland, Italy and Germany.

We have no objective measure at hand to assess and compare the validity of the two distinct categorizations offered by ILO and CEDEFOP. Our main guide is the consideration that CEDEFOP made its evaluation for Europe specifically and therefore we expect it to be

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<sup>12</sup> Alon, T., Doepke, M., Olmstead-Rumsey, J., & Tertilt, M. (2020). *The Impact of COVID-19 on Gender Equality*. 39. <https://www.nber.org/papers/w26947.pdf>

<sup>13</sup> Doepke, Matthias, and Michèle Tertilt. 2016. “Families in Macroeconomics.” Chapter 23 of *Handbook of Macroeconomics*, Vol. 2. North Holland.

<sup>14</sup> Coskun, Sena, and Husnu Dalgic. 2020. “The Emergence of Procyclical Fertility: The Role of Gender Differences in Employment Risk.” *CRC TR 224 Discussion Paper Series No. 142*

better tailored to the particular circumstances of the European economy. But even without making a choice between the two sets of results, some clear messages emerge. Very importantly, both estimates call for immediate relief for a large number of male and female workers and entrepreneurs whose employment and potentially also whose livelihood is being endangered by the crisis. The analyses further highlight that – unlike in the “typical” economic crises – **the labour market shock due to COVID-19 is likely to be as severe for women as for men, if not more so**. Bulgaria and Romania are the two countries where women’s labour market positions are most at risk, according to both approaches.

Women’s reduced labour market participation during the crisis is likely to **further contribute to existing gender disparities in the longer run**, as women’s return to employment is often hampered when jobs are scarce according to available evidence from previous recessions<sup>15</sup>. Moreover, for women, labour market insecurity due to the virus comes to the top of another major female burden: the struggle with a disproportionate share of the unpaid work during the COVID-19 lockdown. A growing pile of studies<sup>16</sup> is now documenting that women took the major part of the responsibility for care work as well as household duties when childcare institutions were closed and family members spent their days at home, and this was so irrespective of their employment situation. Without doubt, the COVID-19 crisis is affecting men and women in distinct ways. To avoid damages of gender equality achieved so far in Europe, any interventions in the recovery phase need to be based on careful, **gender-sensitive analyses** of the ongoing processes.

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<sup>15</sup> [The COVID-19 response: Getting gender equality right for a better future for women at work](#)

<sup>16</sup> See e.g. Andrew, A., Cattan, S., Dias, M. C., Farquharson, C., Kraftman, L., Krutikova, S., Phimister, A., & Sevilla, A. (2020). *The Gendered Division of Paid and Domestic Work under Lockdown*. 32.; Boca, D. D., Oggero, N., Profeta, P., & Rossi, M. C. (2020). *Women’s Work, Housework and Childcare, before and during COVID-19*. 26.



## **List of abbreviations and definitions**

CEDEFOP	European Centre for the Development of Vocational Training
ILO	International Labour Organization
NACE	<b>n</b> omenclature statistique des <b>a</b> ctivités économiques dans la <b>C</b> ommunauté européenne

## Annex

Table A.1 Men and women (thousands) employed in sectors at risk according to ILO's classification, by sector and country.

Country	All high risk sectors, ILO		Manufacturing		Wholesale and retail trade		Accommodation and food services		Real estate and business activities	
	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female
<b>EU27</b>	<b>50,772.1</b>	<b>37,863.0</b>	<b>22,393.1</b>	<b>9,619.8</b>	<b>13,826.8</b>	<b>13,283.4</b>	<b>4,234.8</b>	<b>4,942.0</b>	<b>10,317.4</b>	<b>10,017.8</b>
Belgium	1,152.6	807.8	452.4	132.3	321.1	284.0	91.3	81.7	287.8	309.8
Bulgaria	722.6	798.8	301.4	285.9	246.3	289.9	62.1	102.5	112.8	120.5
Czechia	1,482.6	1,125.0	948.8	486.9	258.7	315.7	76.7	114.4	198.4	208.0
Denmark	681.6	477.4	213.5	87.9	230.9	183.1	56.8	65.4	180.4	141.0
Germany	11,631.3	8,066.9	5,764.9	2,136.4	2,829.8	2,766.4	705.7	855.8	2,330.9	2,308.3
Estonia	156.8	142.7	73.9	47.4	40.8	44.8	9.3	16.9	32.8	33.6
Ireland	546.4	428.2	175.5	75.0	152.5	146.8	78.6	95.4	139.8	111.0
Greece	1,026.4	709.1	275.4	98.6	393.1	302.5	202.5	163.4	155.4	144.6
Spain	5,191.9	4,269.3	1,789.5	691.1	1,572.0	1,531.0	780.6	892.9	1,049.8	1,154.3
France	6,041.5	4,473.3	2,226.2	940.6	1,782.8	1,581.8	497.1	465.3	1,535.4	1,485.6
Croatia	404.9	355.9	192.7	103.0	102.7	138.2	49.9	57.8	59.6	56.9
Italy	6,969.6	4,439.7	3,131.5	1,122.6	1,820.0	1,365.3	679.8	682.2	1,338.3	1,269.6
Cyprus	92.2	89.7	19.9	9.1	35.4	33.1	16.6	19.9	20.3	27.6
Latvia	169.3	192.5	72.1	46.4	52.3	79.3	4.4	25.8	40.5	41.0
Lithuania	289.8	298.1	119.2	96.2	102.6	114.2	9.5	28.1	58.5	59.6
Luxembourg	41.6	35.7	7.6	3.0	11.7	9.8	4.8	4.3	17.5	18.6
Hungary	1,140.3	928.9	629.3	353.5	272.4	298.7	77.4	102.0	161.2	174.7
Malta	66.7	39.7	19.0	7.4	19.4	15.2	13.5	5.8	14.8	11.3
Netherlands	2,140.3	1,399.9	620.0	173.0	685.4	537.1	180.8	200.4	654.1	489.4
Austria	1,106.3	919.7	497.1	174.8	286.2	341.5	103.5	160.7	219.5	242.7
Poland	3,934.5	3,151.7	2,203.0	1,049.4	1,026.0	1,271.5	146.1	251.4	559.4	579.4
Portugal	1,196.8	1,054.5	509.8	319.0	351.1	322.1	131.9	182.9	204.0	230.5
Romania	1,872.0	1,767.8	934.9	691.0	594.1	713.1	90.5	140.9	252.5	222.8
Slovenia	283.6	211.8	171.3	85.5	55.9	67.6	15.5	25.3	40.9	33.4
Slovakia	681.3	529.1	435.6	205.0	125.7	174.4	42.3	64.1	77.7	85.6
Finland	584.0	413.1	236.8	80.2	152.5	121.0	28.1	64.8	166.6	147.1
Sweden	1,163.6	735.9	371.9	118.4	305.2	235.3	79.2	72.0	407.3	310.2

Note: Employment data refer to the age group 15-64, 2019 Q4.

Source: Joint Research Centre, 2020, calculations based on EU-LFS and ILO findings.

Table A.2 Men and women (thousands) employed in sectors at risk according to CEDEFOP's classification, by sector and country.

Country	All high risk sectors, CEDEFOP		Wholesale and retail trade		Accommodation and food services		Social and personal services	
	Male	Female	Male	Female	Male	Female	Male	Female
<b>EU27</b>	<b>21,409.3</b>	<b>22,732.3</b>	<b>13,826.8</b>	<b>13,283.4</b>	<b>4,234.8</b>	<b>4,942.0</b>	<b>3,347.7</b>	<b>4,506.9</b>
Belgium	493.4	469.1	321.1	284.0	91.3	81.7	81.0	103.4
Bulgaria	380.6	434.4	246.3	289.9	62.1	102.5	72.2	42.0
Czechia	389.3	523.9	258.7	315.7	76.7	114.4	53.9	93.8
Denmark	331.9	305.1	230.9	183.1	56.8	65.4	44.2	56.6
Germany	4,280.6	4,736.0	2,829.8	2,766.4	705.7	855.8	745.1	1,113.8
Estonia	59.2	71.4	40.8	44.8	9.3	16.9	9.1	9.7
Ireland	273.8	296.9	152.5	146.8	78.6	95.4	42.7	54.7
Greece	653.9	535.8	393.1	302.5	202.5	163.4	58.3	69.9
Spain	2,717.7	2,904.7	1,572.0	1,531.0	780.6	892.9	365.1	480.8
France	2,742.3	2,742.3	1,782.8	1,581.8	497.1	465.3	462.4	695.2
Croatia	174.0	220.5	102.7	138.2	49.9	57.8	21.4	24.5
Italy	2,976.1	2,657.4	1,820.0	1,365.3	679.8	682.2	476.3	609.9
Cyprus	58.0	63.8	35.4	33.1	16.6	19.9	6.0	10.8
Latvia	66.8	117.2	52.3	79.3	4.4	25.8	10.1	12.1
Lithuania	128.0	167.3	102.6	114.2	9.5	28.1	15.9	25.0
Luxembourg	18.7	17.5	11.7	9.8	4.8	4.3	2.2	3.4
Hungary	423.1	496.3	272.4	298.7	77.4	102.0	73.3	95.6
Malta	34.8	24.3	19.4	15.2	13.5	5.8	1.9	3.3
Netherlands	965.5	890.3	685.4	537.1	180.8	200.4	99.3	152.8
Austria	450.6	605.2	286.2	341.5	103.5	160.7	60.9	103.0
Poland	1,386.4	1,771.8	1,026.0	1,271.5	146.1	251.4	214.3	248.9
Portugal	561.0	633.9	351.1	322.1	131.9	182.9	78.0	128.9
Romania	877.2	973.4	594.1	713.1	90.5	140.9	192.6	119.4
Slovenia	82.7	108.5	55.9	67.6	15.5	25.3	11.3	15.6
Slovakia	200.9	279.6	125.7	174.4	42.3	64.1	32.9	41.1
Finland	219.3	252.1	152.5	121.0	28.1	64.8	38.7	66.3
Sweden	448.3	406.4	305.2	235.3	79.2	72.0	63.9	99.1

Note: Employment data refer to the age group 15-64, 2019 Q4.

Source: Joint Research Centre, 2020, calculations based on EU-LFS and CEDEFOP findings.

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