![International Labour Organization logo]

▶ ILO Monitor:
COVID-19 and the world of work. Seventh edition
Updated estimates and analysis

25 January 2021

Key messages

Latest labour market developments

Workplace closures

▶ **The share of workers living in countries with COVID-19-related restrictions has remained high**, with 93 per cent of the world's workers residing in countries with some form of workplace closure measures in place in early January 2021. Within countries, **more geographically targeted and sector-specific measures have gradually become the norm** over the course of the pandemic, and these were still affecting 77 per cent of workers at the start of the year (close to the peak of 85 per cent reached in late July 2020).
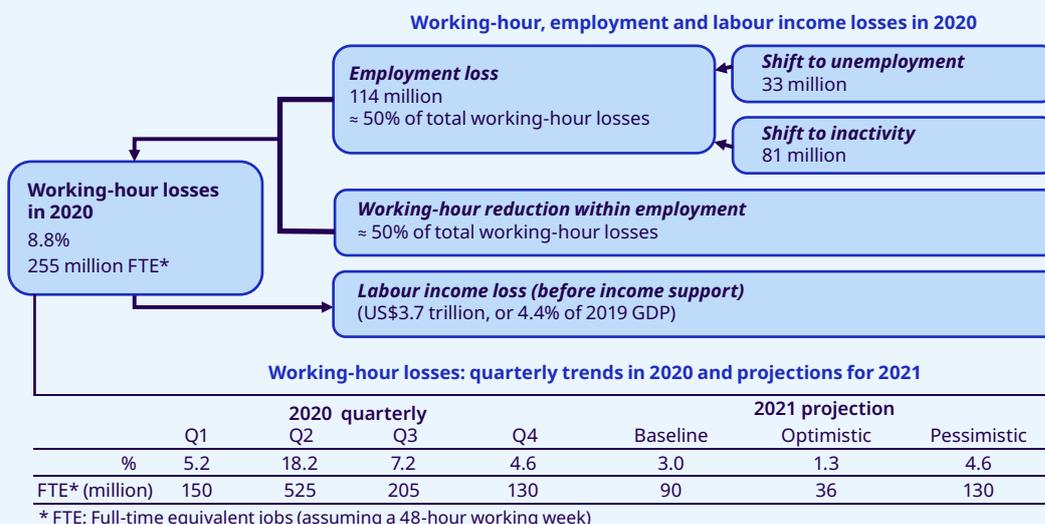
Working-hour losses in 2020

▶ New annual estimates confirm that labour markets around the world were disrupted in 2020 on a historically unprecedented scale.

In 2020, 8.8 per cent of global working hours were lost relative to the fourth quarter of 2019, equivalent to 255 million full-time jobs.[1] Working-hour losses were particularly high in Latin America and the Caribbean, Southern Europe and Southern Asia. **Working-hour losses in 2020 were approximately four times greater than during the global financial crisis in 2009**.

▶ Breaking down these annual figures, revised quarterly estimates reveal how the situation evolved throughout the year. **Estimates of working-hour losses in the third quarter of 2020 have been revised substantially downwards to 7.2 per cent** (from 12.1 per cent in the sixth edition of the *ILO Monitor*), reflecting a stronger-than-expected rebound in working hours, especially in lower-middle-income countries. **In the fourth quarter, global working hours declined by 4.6 per cent, equivalent to 130 million full-time jobs**.

▶ **Figure 1. Estimates of the working hours, employment and labour income lost in 2020, and projections for 2021**

Working-hour, employment and labour income losses in 2020

Working-hour losses: quarterly trends in 2020 and projections for 2021							
	2020 quarterly				**2021 projection**		
	Q1	Q2	Q3	Q4	Baseline	Optimistic	Pessimistic
%	5.2	18.2	7.2	4.6	3.0	1.3	4.6
FTE* (million)	150	525	205	130	90	36	130

* FTE: Full-time equivalent jobs (assuming a 48-hour working week)

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1 Assuming a 48-hour working week. See Technical Annex 1 for more details on the use of full-time equivalent jobs in these estimates. Employment losses are transformed into working hours using the actual number of hours worked, while FTE estimates use 48-hour working weeks.

Employment, unemployment and inactivity

▶ **Globally, the decline in working hours in 2020 translated into both employment losses and a reduction in working hours for those who remained employed, with significant variation across regions.** Employment losses were highest in the Americas, and lowest in Europe and Central Asia, where job retention schemes have supported the reduction in working hours, especially in Europe. In total, there were **unprecedented global employment losses in 2020 of 114 million jobs relative to 2019.** In relative terms, employment losses were **higher for women** (**5.0 per cent**) than for men, **and for young workers (8.7 per cent)** than for older workers.

▶ **Employment losses in 2020 translated mainly into rising inactivity rather than unemployment.** Accounting for 71 per cent of global employment losses, inactivity increased by 81 million,[2] which resulted in **a reduction of the global labour force participation rate by 2.2 percentage points in 2020 to 58.7 per cent. Global unemployment increased by 33 million in 2020**, with the unemployment rate rising by 1.1 percentage points to 6.5 per cent.

Labour income losses

▶ **Global labour income (before taking into account income support measures) in 2020 is estimated to have declined by 8.3 per cent, which amounts to US$3.7 trillion, or 4.4 per cent of global gross domestic product (GDP).**[3] The largest labour income loss was experienced by workers in the Americas (10.3 per cent), while the smallest loss was registered in Asia and the Pacific (6.6 per cent).

Projections for 2021

▶ While there are expectations that a robust economic recovery will occur in the second half of 2021 with the roll-out of vaccination against COVID-19, the global economy is still facing high levels of uncertainty and there is a risk that the recovery will be uneven. The latest projections indicate a persistent work deficit in 2021. Drawing on, inter alia, the International Monetary Fund (IMF)'s economic forecasts from October 2020, the **baseline scenario projects a continued loss in working hours of 3.0 per cent in 2021** relative to the fourth quarter of 2019, which corresponds to **90 million full-time equivalent (FTE) jobs.** In the **pessimistic scenario,** working-hour losses in 2021 will remain **at 4.6 per cent, or 130 million FTE jobs**, relative to the fourth quarter of 2019**.** Even in the **optimistic scenario**, which assumes more favourable conditions, a loss of **1.3 per cent of global working hours (or 36 million FTE jobs)** is still expected in 2021 relative to the fourth quarter of 2019.

Disproportionate impact and uneven recovery

▶ The latest labour force survey data (up to the third quarter of 2020) reveal the **contrast between massive job losses in hard-hit sectors** (such as accommodation and food services, arts and culture, retail, and construction) **and the positive job growth evident in a number of higher-skilled services sectors** (such as information and communication, and financial and insurance activities). This divergence will tend to increase inequality within countries. At the same time, there is **considerable variation across countries** with regard to the severity of the impact of the crisis on jobs in the hardest-hit sectors.

▶ Similarly, evidence from available country data shows that **the impact of the crisis on "post-support labour income"** (which includes the income support received by workers) **was uneven across different parts of the workforce,** although income support measures have mitigated the impact. Overall, losses in post-support labour income were relatively larger for **young workers, women, the self-employed**, and **low- and medium-skilled workers.** Often, job destruction has disproportionately affected low-paid and low-skilled jobs. All this points to the risk of an uneven recovery, leading to still greater inequality in the coming years.

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2   This is over and above the increase in inactivity due to the growth of the working-age population, which amounted to an additional 73 million inactive people in 2020.

3   Global GDP in 2019 using 2019 market exchange rates.

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3

Looking ahead: Supporting a human-centred recovery

▶ The world enters 2021 still facing an unprecedented crisis in jobs and incomes and heightened levels of uncertainty. Over the year, policy responses will need to combine the roll-out of vaccination, public health measures, and supporting measures for the economy and the labour market. Policymakers should strive to **support a recovery that is robust and broad-based, focusing on employment, income, workers' rights and social dialogue: a human-centred recovery.**

▶ To that end, policymakers need to consider: (a) maintaining an accommodative macroeconomic policy for income support and investment; (b) assisting low- and middle-income countries with vaccination and policy measures; (c) ensuring that hard-hit groups (notably young people, women, the low-paid and low-skilled workers) are supported in finding decent work opportunities and that they do not suffer any long-term "scarring effects"; (d) balancing the needs of the diverging sectors, with effective policy measures to support workers' labour market transitions as well as enterprises (particularly smaller firms); and (e) implementing recovery strategies, based on social dialogue, that promote a transition to a more inclusive, resilient and sustainable world of work.

▶ Part I. Latest labour market developments in 2020 and predictions for 2021: Modest recovery with high uncertainty

Workplace closures

The number of workers living in countries with COVID-19-related workplace restrictions remained high at the start of 2021, with 93 per cent of the world's workers residing in countries with some form of workplace closures in place (figure 2). Within countries, more geographically targeted and sector-specific measures have gradually become the norm over the course of the pandemic. Thus, fewer than 3 per cent of the world's workers are currently living in countries with economy-wide required closures for all but essential workplaces, down from a peak of 41 per cent in April 2020. A further 11 per cent of workers reside in countries with nationwide closures for some sectors or categories of workers, down from more than 30 per cent in late September. At 77 per cent, the share of workers living in countries with required closures in geographically targeted areas or for specific sectors remains close to the peak of 85 per cent reached in late July.

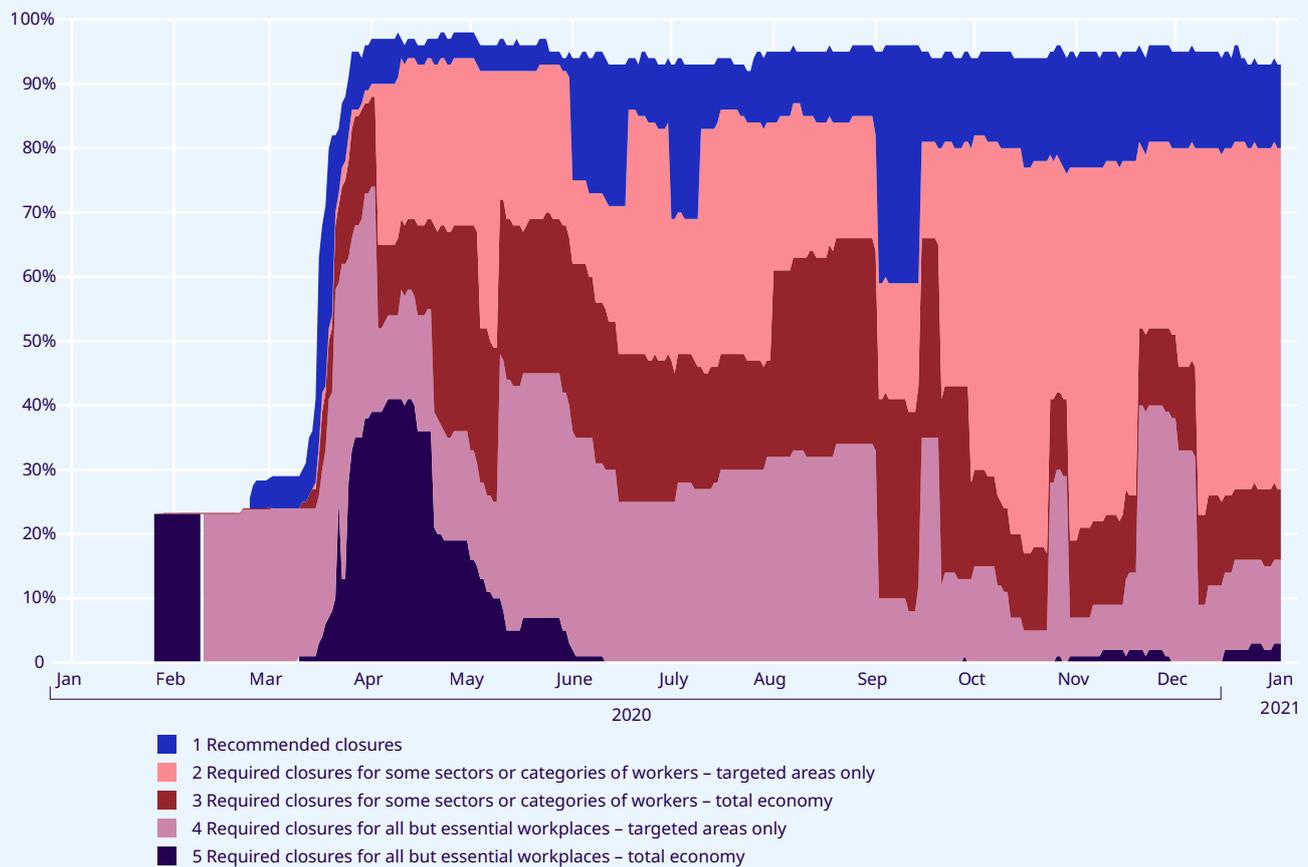Trends in workplace closures vary considerably across the world's main regions. With a second wave of the

pandemic sweeping across Europe in the second half of 2020, the **Europe and Central Asia** region has seen a marked increase in restrictions. At the start of 2021, 20 per cent of workers in the region were living in countries with economy-wide closures for all but essential workers – the highest share among the five major regions of the world. This was driven by a sharp increase in restrictions in Northern, Southern and Western Europe beginning in December: nearly 40 per cent of workers in that subregion are currently living in countries with required closures for all but essential workplaces.

Restrictions in **Asia and the Pacific** continue to be widespread, with over 90 per cent of workers in that region living in countries with some form of workplace closure measures in place. However, in line with the global trend, the measures have become more geographically targeted and only a small share of workers are affected by economy-wide restrictions.[4]

All other major regions have seen a gradual softening of measures. Around half of the workers in the **Arab States** region currently reside in countries with COVID-19-related workplace restrictions, down from a peak of nearly 100 per cent between April

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4   In recent weeks, though, the number of COVID-19 cases has risen in certain countries in Asia and the Pacific, which may potentially point to a second wave of the pandemic occurring there.

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4

▶ **Figure 2. Share of world's employed in countries with workplace closures,
January 2020 – January 2021** (percentage)

1 Recommended closures
2 Required closures for some sectors or categories of workers – targeted areas only
3 Required closures for some sectors or categories of workers – total economy
4 Required closures for all but essential workplaces – targeted areas only
5 Required closures for all but essential workplaces – total economy

Note: The shares of workers in countries with required workplace closures for some sectors or categories of workers and countries with recommended workplace closures are stacked on top of the share of workers in countries with required workplace closures for all but essential workplaces.

Source: ILOSTAT database, ILO modelled estimates and the Oxford COVID-19 Government Response Tracker.

and June 2020. Approximately one in five workers in **Africa** reside in countries with required workplace closures, down from a peak of around four in five in April. Most measures currently in place in the region target specific sectors or geographical areas within countries. In the **Americas**, the share of workers living in countries with some form of workplace closure measures in place remains close to 90 per cent. However, nearly all restrictions are targeted at certain geographical areas or sectors, indicating a general easing of the situation there too.

A number of factors, including a better understanding of how containment measures help to control the spread of the virus, have driven the changing nature of workplace closures. Governments have recognized that geographically targeted and sector-specific measures are more acceptable to people, as they

reduce the economic impact. In developing countries, limited fiscal space and other policy constraints made difficult choices necessary in 2020, and most of these economies have now moved away from hard lockdowns. Nevertheless, as the health risks remain high, striking an appropriate balance between public health measures and support for workers and enterprises affected by workplace closures remains key to mitigating both the immediate and long-term impact of the pandemic on the world of work. Even in countries with less stringent measures, economic activity has been affected because of physical distancing and global spillover effects, such as the sharp reduction in tourism and the persistent barriers to migration. Tourism and migration are both critical to the functioning of many developing and emerging economies.

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5

Unprecedented global working-hour losses throughout 2020, with an uneven and modest recovery

Unprecedented global working-hour losses in 2020

In terms of the pandemic's overall impact in 2020, the new ILO annual estimates confirm that it caused massive disruptions in the world of work. **In 2020, 8.8 per cent of global working hours were lost relative to the fourth quarter of 2019, equivalent to 255 million full-time jobs**[5] (assuming a 48-hour working week). These losses were global and unprecedented.

While the disruption was global, there was substantial variation between regions (figure 3). Working-hour losses in 2020 were particularly large in Latin America and the Caribbean, Southern Europe and Southern Asia. In contrast, Eastern Asia and Central, Western and Eastern Africa experienced relatively smaller working-hour losses, reflecting less stringent lockdown measures in these subregions.

The labour market disruption in 2020 far exceeded the impact of the global financial crisis of 2009. Over the 15 years before the onset of the COVID-19 pandemic, the average hours worked per person of working age (aged 15 to 64) fluctuated between 27 and 28 hours per week. This then dropped sharply by 2.5 hours from 27.2 hours per week in 2019 to 24.7 hours per week in 2020 (figure 4).[6] In contrast, when the global financial crisis hit the labour market, average working hours declined by just 0.6 hours between 2008 and 2009. The effect of the COVID-19 shock on global working hours has therefore been approximately four times greater than that of the global financial crisis.

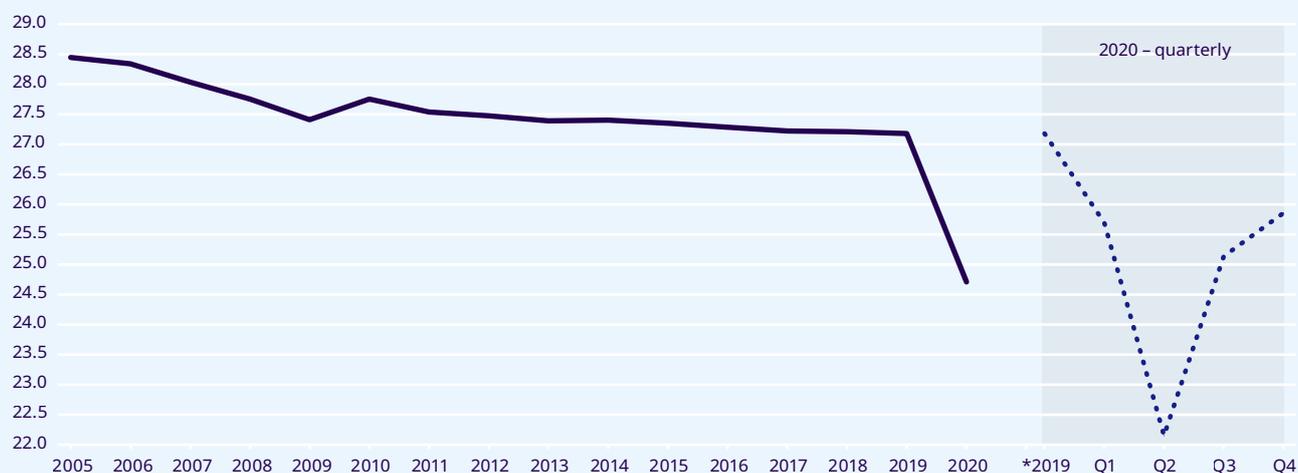▶ **Figure 3. Working hours lost around the world in 2020 relative to the fourth quarter of 2019** (percentage)

0%   27%
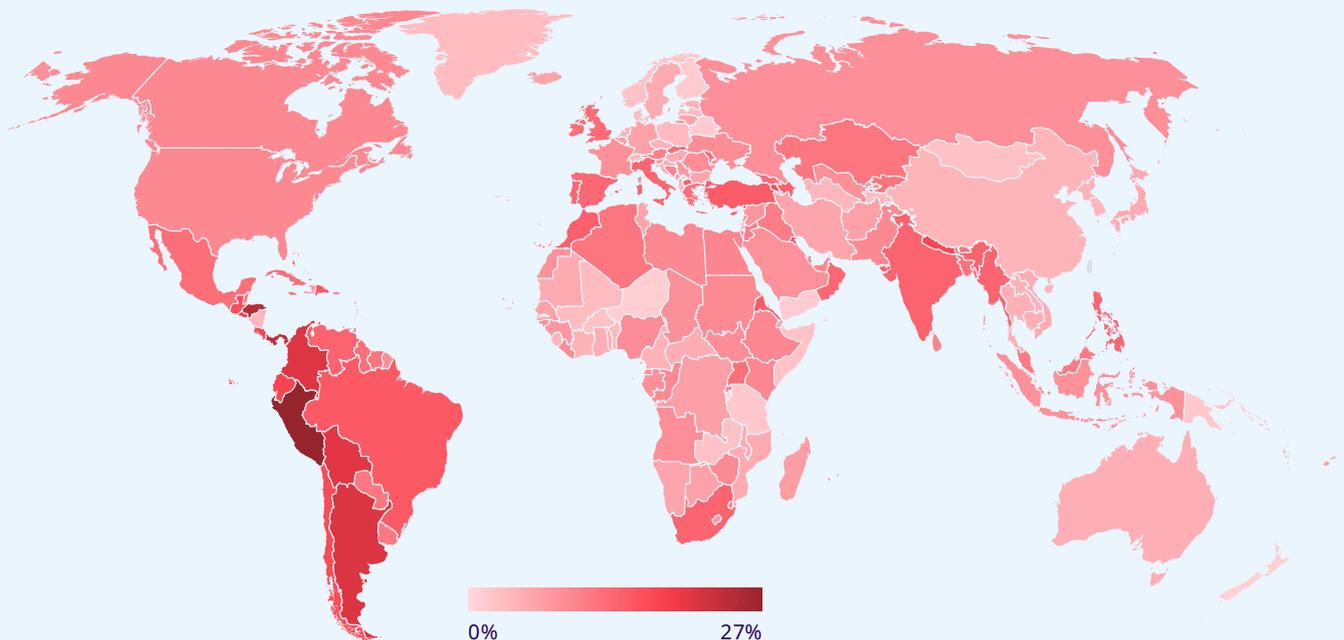
Source: ILO nowcasting model (see Technical Annex 1).

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5   See Technical Annex 1 for more details on the use of full-time equivalent jobs in these estimates.

6   These averages, which refer to all people aged 15 to 64 years, are not comparable to the full-time equivalent (FTE-48) estimates presented elsewhere in this edition of the *ILO Monitor*. The FTE-48 estimates refer only to employed people aged 15 and above.

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6

▶ **Figure 4. Hours worked per person in the working-age population (aged 15 to 64), world, 2005–20**

Note: Annual average.

Source: ILO modelled estimates based on the ILO nowcasting model (see Technical Annex 1).

Trends in 2020:
Updated quarterly estimates

The quarterly estimates reflect the volatility in working hours during the pandemic (figure 5). **Half of the total loss of working hours in 2020 occurred during the second quarter of the year**. During the first quarter of 2020, an estimated 5.2 per cent of global working hours (down from 5.6 per cent as estimated previously) were lost relative to the fourth quarter of 2019, equivalent to 150 million full-time jobs (assuming a 48-hour working week). The implementation of strict containment measures worldwide caused working-hour losses to peak in the second quarter of 2020, the estimated decline being 18.2 per cent (up from the previous estimate of 17.3 per cent), equivalent to 525 million full-time jobs.

▶ **Figure 5. Working-hour losses, world and by income group, 2020 total and quarterly estimates** (percentage)

	2020	2020 Q1	2020 Q2	2020 Q3	2020 Q4
World	8.8	5.2	18.2	7.2	4.6
Low-income countries	6.7	2.5	13.4	7.6	3.3
Lower-middle-income countries	11.3	2.5	29.0	9.3	4.5
Upper-middle-income countries	7.3	8.4	11.5	5.6	3.9
High-income countries	8.3	3.0	15.8	7.3	7.0

Source: ILO nowcasting model (see Technical Annex 1).

The estimates for the third quarter have been revised substantially downwards[7] to 7.2 per cent, almost 5 percentage points less than the previous estimate of 12.1 per cent. This revision is due to new data suggesting a strong rebound effect across all country income groups, but with particular intensity in lower-middle-income countries, where containment measures became less stringent and economic activities resumed quickly. Global working-hour losses during the third quarter were equivalent to 205 million full-time jobs, pointing to the persistence of severe labour market disruption.

Working-hour losses for the fourth quarter of 2020 are estimated at 4.6 per cent, equivalent to 130 million full-time jobs, relative to the pre-crisis baseline (fourth quarter of 2019). This loss is smaller than the projections presented in the previous edition of the *ILO Monitor* (8.6 per cent in the baseline scenario and 5.7 per cent in the optimistic scenario). This more positive trend is a consequence of the strong rebound in the third quarter of 2020. The pace of recovery during the fourth quarter is estimated to have been modest.

The latest ILO estimates indicate that developing countries, which suffered sharp contractions in working hours, have tended to experience strong rebounds (for regional findings, see table A1 in the Statistical annex). At the same time, in countries going through a "second wave" of restrictions – mainly high-income countries – working-hour losses are estimated to be considerably smaller than during the "first wave". **During 2020, lower-middle-income countries experienced the greatest losses in working hours**,

which stood at 11.3 per cent, well above the global average of 8.8 per cent. This was overwhelmingly driven by the stronger impact of the crisis on this country group during the second quarter (working-hour losses of 29.0 per cent, compared with a global average of 18.2 per cent) (figure 5). **Upper-middle-income and high-income countries present similar working-hour losses** (7.3 and 8.3 per cent, respectively) during 2020, albeit with considerable differences in quarterly trends. Finally, low-income countries experienced the lowest working-hour losses in 2020 of all income groups, at 6.7 per cent.[8,9]

Inactivity increased much more than unemployment

As explained in previous editions of the *ILO Monitor*, working-hour losses are composed of two dimensions of labour market adjustment (figure 6): employment losses and reduced working hours for those who remain employed (see Technical Annex 2 for further details). Workers who suffer a loss of employment find themselves either "unemployed" (actively searching for new jobs) or "inactive" (withdrawing from the labour market because they are not available to work and/or do not search for a job).[10] A reduction in working hours includes both shorter hours and "zero hours" while remaining employed. In previous crises, a large proportion of working-hour losses was typically associated with an increase in unemployment. However, **during the COVID-19 crisis, both inactivity and shorter hours have turned out to be major drivers of overall working-hour losses.**

▶ **Figure 6. Estimates of the working hours and employment lost in 2020**

Note: Employment loss and changes to unemployment and inactivity are relative to 2019. The shift to inactivity represents the decline in the labour force. Employment losses are transformed into working hours using the actual amount of hours worked, while the FTE estimates use 48-hour working weeks.

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7   As noted in the previous edition of the *ILO Monitor,* the uncertainty associated with the third quarter is considerable because of data limitations.

8   Care should be taken when interpreting this finding, as no labour force survey data are available for countries in the low-income group (see Technical Annex 1 for details of the estimation process).

9   The relatively lower working-hour losses in low-income countries may reflect the greater importance of informal and agricultural employment and the fact that most people there need to work in order to survive. Additionally, while low-income countries acted swiftly to close their borders and implement public health restrictions in the second quarter of 2020, they subsequently lifted them more quickly than wealthier countries.

10 See the ILOSTAT portal for detailed definitions of key terms: https://ilostat.ilo.org/resources/concepts-and-definitions/.

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8

▶ **Figure 7. Decomposition of working-hour losses into changes in unemployment, inactivity and reduced working hours, world and by income group and region, 2020** (percentage)
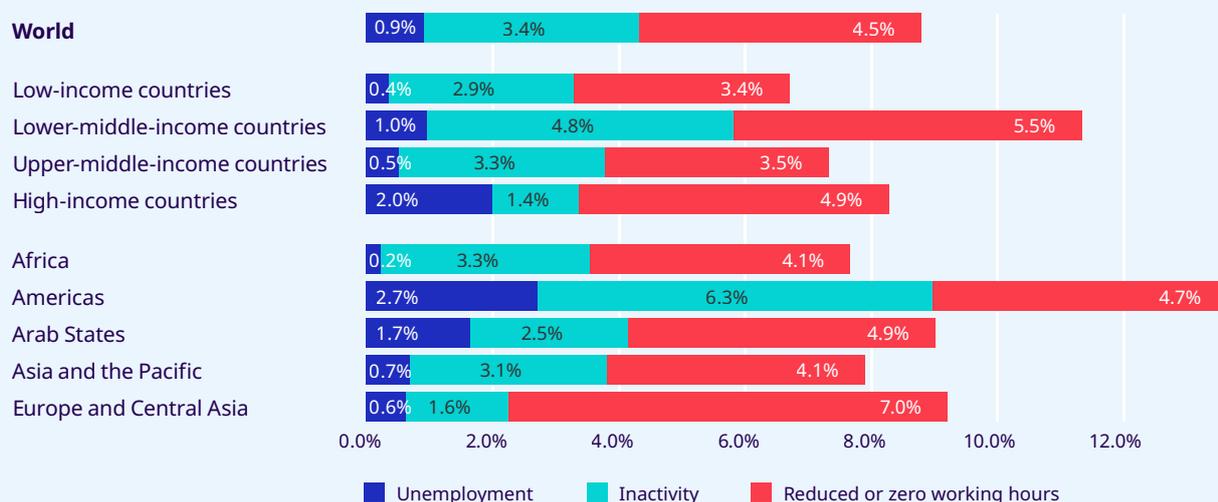
Note: The overall working-hour loss is decomposed into changes in unemployment, inactivity and reduced or zero working hours. Unemployment plus inactivity equals the total employment loss. Unemployment and inactivity have been transformed into their working-hour equivalent using the average working hours per week. The working-hour equivalent of changes in employment, unemployment and inactivity is computed using the estimated average working hours per week, which ranges from 35 to 45 hours per week across the income groups and regions. This differs from the 48-hours FTE equivalent presented in the previous section, where the same number of weekly working hours is used to make the estimates comparable across regions.

Source: ILOSTAT database, ILO modelled estimates.

Globally, around half of working-hour losses are due to employment loss, while the other half can be attributed to reduced working hours (including workers who remain employed but are not working) (figures 6 and 7). However, there is significant variation between regions. Employment losses, both as a share of the working-age population and in relation to working-hour losses, were highest in the Americas, and lowest in Europe and Central Asia, where reduced working hours have been extensively supported by job retention schemes, especially in Europe.

Despite the adjustment through reduced working hours, employment losses in 2020 were nonetheless massive, amounting to **a loss of 114 million jobs relative to the pre-crisis employment level in 2019**. However, this estimate understates the full extent of employment loss: comparison with a "no pandemic" scenario reveals a much greater deficit of 144 million jobs (box 1).

In contrast to previous crises, **by far most of the global employment loss in 2020 translated into rising inactivity rather than unemployment, leading to an additional 81 million people shifting to inactivity alongside 33 million unemployed**. Consequently, **the global labour force participation rate has dropped by 2.2 percentage points** owing to the COVID-19 crisis, compared with just 0.2 percentage points between 2008 and 2009 as a result of the global financial crisis. Only in high-income countries did unemployment rise more than inactivity – a phenomenon that was driven to a significant extent by trends in the United States of America.[11] As pointed out in previous editions of the *ILO Monitor*, **unemployment numbers reflect only a small proportion of the jobs lost in the COVID-19 crisis.** Many people who wished to have a job became inactive because they could not see any opportunity to search for a job successfully, or they were simply unable to do so owing to the COVID-19 restrictions.

11 The United States accounts for 63 per cent of the additional unemployed among all high-income countries in 2020. The two main factors contributing to this phenomenon are (a) the extensive use of furlough schemes in European high-income countries, which lowered the increase in unemployment; and (b) the apparently strong motivation to actively search for a job in the United States even during a pandemic.

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9

▶ **Box 1. Annual employment losses understate the full impact of the COVID-19 crisis on the labour market in 2020 and 2021**

Employment around the world is estimated to have declined in 2020 by 114 million relative to the level in 2019. However, this estimate understates the full impact, which can be gauged by looking at the difference in 2020 relative to the employment level that had been anticipated in the absence of the pandemic. This "no pandemic" scenario assumes the long-term trend in the labour force participation rate to hold in 2020 and that unemployment rates in 2020 are equal to their 2019 values. Global employment in this scenario is 30 million higher than in 2019, mainly owing to the growth of the working-age population.

Applying this "no pandemic" scenario, the estimated global employment loss in 2020 is considerably larger, at 144 million jobs (figure B1). At the same time, as discussed below, working-hour losses in 2021 are expected to translate more into employment losses than into reduced working hours. Compared with the "no pandemic" trend , the global employment loss is projected to decline from 144 million jobs in 2020 to 68 million in 2021 (if the baseline scenario is assumed for the projections, see below).

▶ **Figure B1. Global employment loss relative to the "no pandemic" scenario, 2018–21**
(employment: billion people)
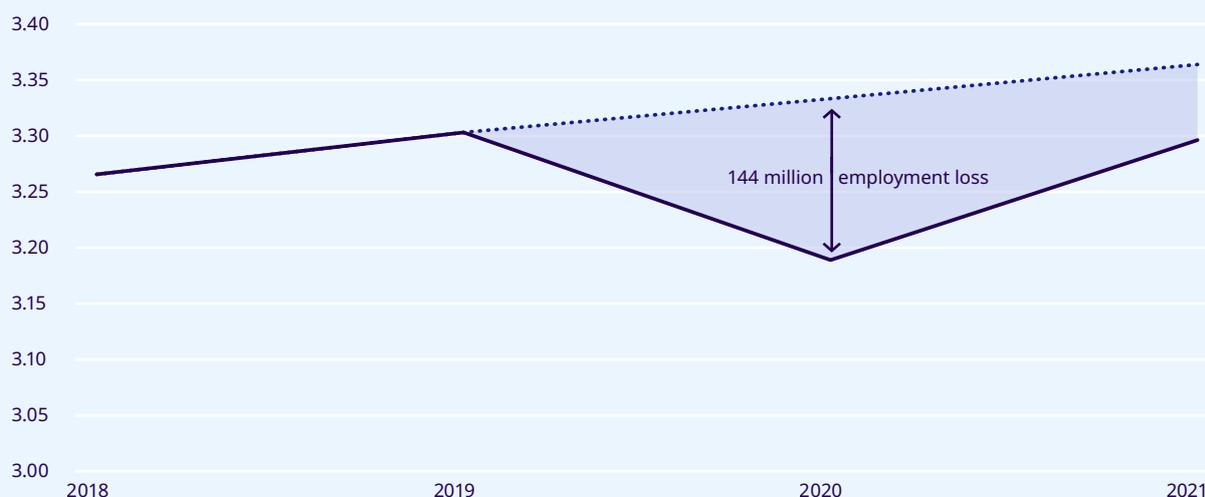
Despite representing a smaller proportion of the overall work deficit, compared to 2019, **global unemployment nevertheless increased by 33 million to 220 million in 2020**, with the unemployment rate increasing by 1.1 percentage points to 6.5 per cent. This increase is much larger than that observed during the global financial crisis of 2009 (0.6 percentage points). In contrast to the global financial crisis, the COVID-19 crisis has affected labour markets worldwide, resulting in greater job losses and unemployment hikes everywhere – including low- and middle-income countries, which were not hit as hard during the global financial crisis. In high-income countries, the increase in the unemployment rate between 2019 and 2020 (2.0 percentage points)

is very similar to that seen between 2008 and 2009 (2.1 percentage points).

Globally and across all regions and country income groups, women have been affected by employment loss to a greater extent than men. At the global level, the employment loss for women stands at 5.0 per cent in 2020, versus 3.9 per cent for men (figure 8). In absolute numbers, the loss is larger for men (80 million) than for women (64 million) because of the long-standing gender gap in labour force participation rates. Across all regions, women have been more likely than men to become economically inactive, that is to drop out of the labour force, during this crisis.

▶ **Figure 8. Decomposition of employment losses into changes in unemployment and inactivity, by sex and age, world, 2020** (percentage)
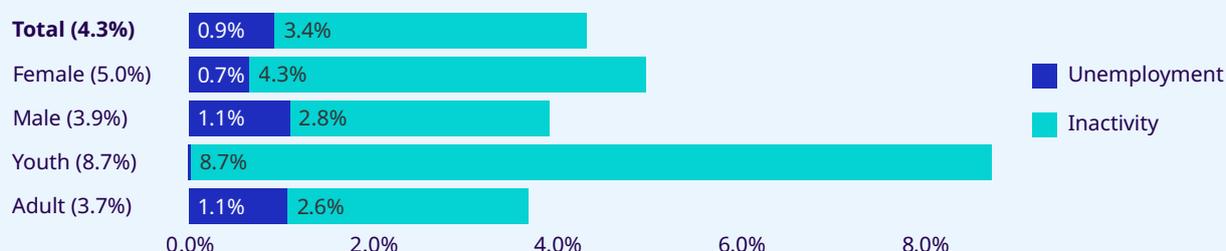
Note: The two bars in each row show the difference in, respectively, unemployment and inactivity (withdrawal from the labour force) in 2020 as a percentage of employment in the "no pandemic" scenario. The total of the bars in each case is the difference in employment compared to the "no pandemic" scenario. The percentages inside parentheses that appear after the names of the demographic groups indicate the employment loss for each particular group. Youth = aged 15–24 years; Adult = aged 25+ years.

Source: ILO estimates.

Young workers were particularly hard hit by the crisis in 2020 across all regions and country income groups, resulting in an employment loss of 8.7 per cent, as opposed to 3.7 per cent for adults (figure 8). However, outside high-income countries, jobless young people, or those who were about to enter the labour market, did not generally move into unemployment but, rather, dropped out of the labour force, or delayed their entry into it.[12] This explains why the global number of unemployed young people did not increase. Nevertheless, **this crisis has exacerbated young people's disconnection from the labour market, highlighting the all too real risk of a lost generation**, as already pointed out in the fourth edition of the *ILO Monitor*.

Labour income losses

Given the massive losses in working hours, workers have suffered large reductions in their income from work. This latest edition of the *ILO Monitor* presents new estimates of the total loss of labour income in 2020 resulting from working-hour losses before income support measures are taken into account.[13]
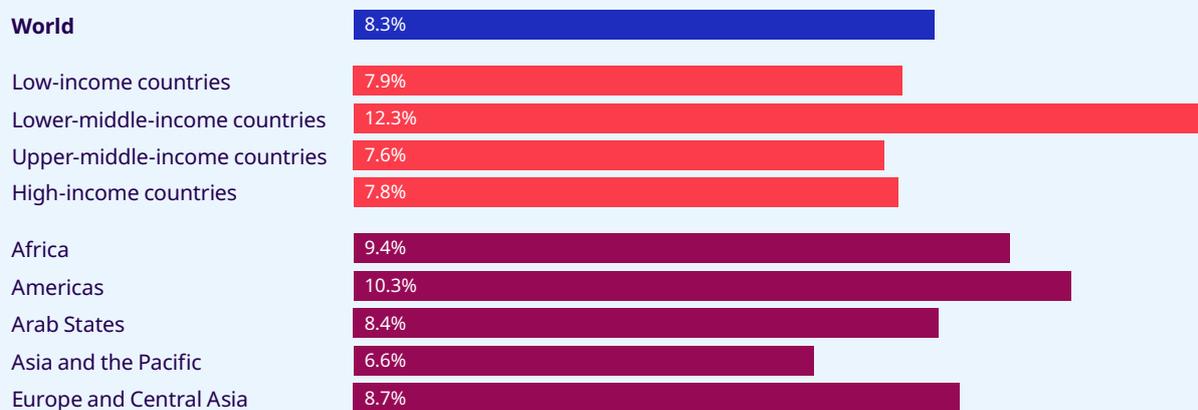
Global labour income is estimated to have declined by 8.3 per cent in 2020 relative to 2019 (see figure 9).[14] The estimates indicate that the greatest labour income loss, amounting to 12.3 per cent, was experienced by lower-middle income countries. Estimated labour income losses were similar in low-, upper-middle- and high-income countries. However, this masks a **large disparity within the country income groups, with significant variations occurring across geographical regions.** For instance, workers in the Americas are estimated to have lost 10.3 per cent of labour income, compared with 6.6 per cent for workers in Asia and the Pacific.

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12 The share of young people not in employment, education or training (NEET) has increased on average in the countries for which labour force survey data are available for the second and third quarters of 2020.

13 Labour income as discussed in this section includes any income related to formal or informal work undertaken for pay or profit, but excludes any other kind of transfers or benefits. Wages subsidized by government-financed furlough schemes are not taken into account in the estimates of labour income loss presented above; they would in fact reduce the income loss for households benefiting from them. As for labour income that takes into account income support measures, this is referred to as "post-support labour income" in the present edition of the *ILO Monitor* (see below). The labour income losses presented here do not equate to household income losses, as households also have other sources of income. During this crisis, the most important components in the variation of household incomes of workers are the labour income loss and the extent to which labour income is replaced through social security benefits or some other scheme. Other sources, such as returns on financial investments, play only a minor role for most workers' households. The returns from the economic activity of the self-employed comprise both labour income and implied capital income (from physical and non-physical capital). Both income shares fall jointly when working hours are reduced. For further details, see Technical Annex 3 in ILO, *ILO Monitor: COVID-19 and the World of Work – Sixth Edition*, 23 September 2020.

14 These estimates represent a downward revision compared with those in the sixth edition of the *ILO Monitor*, which is due mainly to the better-than-expected economic development in the third quarter of 2020 and the fact that the fourth quarter had smaller working-hour losses than the preceding two quarters. Refined estimates of the distribution of working-hour losses across low- and high-income earners within countries take off an additional 0.2 percentage points from the estimate of global labour income loss.

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11

▶ **Figure 9. Share of labour income lost due to working-hour losses in 2020 (before income support measures), world and by income group and region** (percentage)

World	8.3%
Low-income countries	7.9%
Lower-middle-income countries	12.3%
Upper-middle-income countries	7.6%
High-income countries	7.8%
Africa	9.4%
Americas	10.3%
Arab States	8.4%
Asia and the Pacific	6.6%
Europe and Central Asia	8.7%

Note: Labour incomes are aggregated using purchasing power parity exchange rates.

In monetary terms, **global labour income fell by an estimated US$3.7 trillion** (using 2019 market exchange rates) **in 2020 relative to 2019. This corresponds to 4.4 per cent of global GDP in 2019.** Those sizeable labour income losses could push households into poverty[15] and cause them to reduce their consumption once savings have been used up, further diminishing aggregate demand. **The reduction in labour income has been distributed unevenly between workers, meaning that the problem of income loss is combined with that of greater inequality** (see Part II for further discussion of this issue).
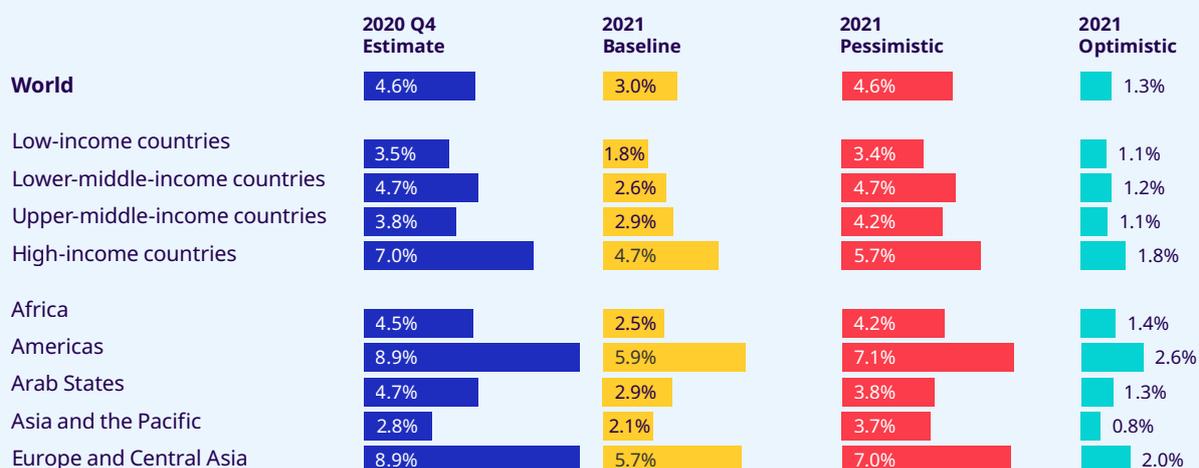
Prospects for 2021

Looking ahead, there are expectations that a robust recovery will occur in the second half of 2021, particularly in view of the latest developments regarding vaccine approvals. However, there is also much uncertainty together with risks that could dampen or derail the recovery. The actual speed and quality of the recovery will depend on a wide range of political, economic and health factors, including the extent of vaccination, how countries continue to control the pandemic, and whether policy measures can be maintained to promote economic and labour market recovery. **The projections for 2021 are therefore subject to a very high degree of uncertainty concerning the evolution of the pandemic and the nature of policy responses.**

Bearing that in mind, this edition of the *ILO Monitor* presents three scenarios that could lead to significantly different labour market outcomes (see Technical Annex 3 for details). **Under the baseline scenario, global working-hour losses will amount to 3.0 per cent in 2021** (relative to the fourth quarter of 2019), which is **equivalent to 90 million full-time jobs** assuming a 48-hour working week (figure 10). Working-hour losses are projected to be smallest in low-income countries, at 1.8 per cent, and largest in high-income countries, at 4.7 per cent. The largest recovery, with respect to losses in 2020, is projected to occur in lower-middle-income countries (2.6 per cent). Working hours in low- and lower-middle-income countries are expected to rebound strongly, as the lack of alternative income sources and widespread poverty force people to take up any economic activity in order to survive. High-income and, to some extent, upper-middle-income countries are expected to face a difficult first quarter, but are also likely to experience a relatively strong recovery in the second half of the year as vaccination reaches a critical mass of people.

The Americas and Europe and Central Asia are expected to suffer working-hour losses more than twice as large as those in other regions, owing to the stringent health measures that were in place at the start of the year**.** The Americas suffered by far the largest losses in 2020, and accordingly have the most ground to make up, while at the same time still experiencing serious restrictions because of the

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15 The World Bank estimates that the global poverty rate of people living on less than US$1.90 per day increased from 8.4 per cent in 2019 to 9.1 per cent in 2020, instead of a previously predicted decline to 7.9 per cent, implying an additional 88 million people living in poverty.

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12

▶ **Figure 10. Estimated working-hour losses in 2020 and projections under three different scenarios for 2021, world and by region and income group** (percentage)

	2020 Q4 Estimate	2021 Baseline	2021 Pessimistic	2021 Optimistic
World	4.6%	3.0%	4.6%	1.3%
Low-income countries	3.5%	1.8%	3.4%	1.1%
Lower-middle-income countries	4.7%	2.6%	4.7%	1.2%
Upper-middle-income countries	3.8%	2.9%	4.2%	1.1%
High-income countries	7.0%	4.7%	5.7%	1.8%
Africa	4.5%	2.5%	4.2%	1.4%
Americas	8.9%	5.9%	7.1%	2.6%
Arab States	4.7%	2.9%	3.8%	1.3%
Asia and the Pacific	2.8%	2.1%	3.7%	0.8%
Europe and Central Asia	8.9%	5.7%	7.0%	2.0%

Note: Working-hour losses are expressed as percentages of the hours worked in the last pre-crisis quarter (the fourth quarter of 2019).

Source: ILO estimates (see Technical Annex 3).

ongoing pandemic. The Asia and the Pacific region, in contrast, is projected to experience the smallest working-hour losses in 2021, reflecting the recovery that was already under way at the end of 2020.

In the pessimistic scenario, labour market recovery in 2021 will be much slower and **working-hour losses will remain at the high level of 4.6 per cent** (relative to the last pre-crisis quarter), **equivalent to 130 million full-time jobs.** This scenario assumes slow progress on vaccination in particular, a prolonged serious impact of the pandemic in general, and lower consumer and business confidence. Combined with potential shortfalls in fiscal stimulus, job creation is limited. In this scenario, working-hour losses will not be recuperated in all countries, except high-income countries.

The optimistic scenario sees a strong rebound in working hours in 2021 thanks to an upsurge in consumer and business confidence, with the pandemic being under control. Nevertheless, even in this scenario, a gap of 1.3 per cent of global working hours will remain in 2021, which corresponds to 36 million full-time jobs assuming a 48-hour working week. In the Americas and in Europe and Central Asia, working-hour losses are expected to remain in excess of 2 per cent in 2021 in this scenario.

Employment is expected to recover in 2021 along with working hours. At the same time, working-hour losses in 2021 are expected to translate more into employment losses than into reduced working hours.[16] As highlighted in box 1 above, a comparison with the "no pandemic" trend yields **a projected employment loss of 68 million in 2021** (assuming the baseline scenario for the projections).

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16 Although many countries have extended their furlough schemes, which enable companies to keep workers employed with reduced or zero working hours, those companies are not hiring any new workers. Moreover, some existing workers eventually quit their jobs or retire.

▶ Part II. Hope for recovery but risk that it will be uneven

Although hope is growing that recovery is on the horizon, there are serious concerns that workers and businesses that have been hit hard by the crisis will benefit less from improving economic conditions. Such concerns are captured by the concept of a "K-shaped recovery", where some parts of the economy or labour market benefit strongly from the recovery, while others are left behind. To shed light on this matter, this edition of the *ILO Monitor* presents an analysis of the uneven impacts on employment and income with disaggregation by economic sectors and socio-economic groups. Owing to limitations in the availability of data, these findings are tentative and are based on a relatively small sample of countries; nonetheless, they provide important insights and underscore the need to monitor these trends over the coming months.

Sectors at risk and diverging trends

The second edition of the *ILO Monitor*, issued on 7 April 2020, identified four sectors as being at high risk: (a) accommodation and food services; (b) real estate, business and administrative activities; (c) manufacturing; and (d) wholesale and retail trade. Labour force survey data[17] for total working hours and employment in the second and third quarters of 2020 provide an updated perspective on the actual impact of the COVID-19 crisis on these and other sectors of the economy, which were affected to varying degrees by the lockdown measures in place during that period.

Overall, **these data confirm that the at-risk sectors have indeed been hit hard, suffering massive job losses, especially in the case of accommodation and food services, retail and manufacturing.** While total working-hour losses were greater than the decline in employment – reflecting the fact that adjustment also took place through lower average weekly working hours – **employment still decreased very sharply, by more than 20 per cent in accommodation and food services.**[18] Employment loss was observed in other sectors, too, albeit on a smaller scale.

The recovery of employment in the third quarter of 2020 tended to be modest and uneven. Despite a deceleration in the negative employment growth rates, most sectors, especially those hit hard in the second quarter, continued to experience declining employment in the third quarter. The hardest-hit sector, accommodation and food services, was still badly affected in the third quarter, while job destruction continued in construction, retail and manufacturing during that quarter, albeit at a lower rate.

In contrast to nearly all other sectors, **employment both in information and communication and in financial and insurance activities continued to increase in the second and third quarters**. Reflecting the increasing demand for digital services, along with the strong performance of financial markets during this period, employment in the second quarter grew by 5.0 per cent in the information and communication sector and by 3.4 per cent in financial and insurance activities. Employment also increased, most notably in the third quarter, in mining and quarrying and in utilities**.**

These diverging sectoral patterns may generally be observed across all countries, especially the contrasting fortunes of hard-hit and high-performing sectors. **At the same time, the magnitude of sectoral differences and their changes has varied considerably between countries** (see Technical Annex 4, figure A1). Some countries, such as Brazil, Costa Rica, Spain and the United States, have experienced greater divergence between sectors than other countries, including France, the Republic of Korea, Thailand and the United Kingdom of Great Britain and Northern Ireland, which have either adopted strong policy measures to support the labour market or have been less affected by the virus (and the ensuing containment measures).

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17 See the note to table 1 below.

18 See ILO, *ILO Monitor: COVID-19 and the World of Work – Second Edition*, 7 April 2020. Accommodation and food services is a sector characterized by low pay and a relatively large share of female workers. The figures presented above are sample averages (unweighted) and should not be interpreted as global figures.

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14

▶ **Table 1. Sectoral working-hour and employment growth rates in the second and third quarters of 2020 (year-on-year) compared with the predictions of at-risk status from the second edition of the *ILO Monitor* (percentage)**

Sector	At-risk status (2nd ed. of *ILO Monitor*)	Growth of working hours (year-on-year) (%)		Growth of employment (year-on-year) (%)	
		2020 Q2	2020 Q3	2020 Q2	2020 Q3
I. Accommodation and food service activities	High	−33.0	−17.5	−20.3	−13.6
R, S, T. Other services*	Medium-High	−20.8	−9.1	−13.4	−6.3
F. Construction	Medium	−14.8	−4.0	−8.4	−2.2
G. Wholesale and retail trade; repair of motor vehicles and motorcycles	High	−13.0	−4.9	−7.2	−2.8
C. Manufacturing	High	−11.9	−4.4	−5.6	−2.5
P. Education	Low	−11.4	−1.3	−1.4	0.1
H,J. Transport, storage; communication	Medium-High	−9.8	−3.7	−3.1	−1.6
H. Transportation and storage	n.a.	−14.9	−8.5	−6.2	−6.1
J. Information and communication	n.a.	1.3	5.8	5.0	7.3
L,M,N. Real estate; business and administrative activities	High	−7.9	−4.0	−2.5	−2.1
A. Agriculture; forestry and fishing	Low-Medium	−6.9	−4.3	−3.9	−3.1
O. Public administration and defence; compulsory social security	Low	−4.2	1.5	−1.2	1.8
D,E. Utilities	Low	−3.5	0.7	0.1	1.1
Q. Human health and social work activities	Low	−3.4	0.2	−0.8	0.5
B. Mining and quarrying	Medium	−2.4	−1.6	3.6	2.8
K. Financial and insurance activities	Medium	−0.5	2.2	3.4	3.5

* The "other services" sector includes employment in "arts, entertainment and recreation", "other service activities" and "activities of households as employers".

Note: Average growth in total working hours and employment for any given sector is unweighted and based on a maximum sample of 49 countries (see the list below); for each sector, the composition of the countries in the sample varies slightly. Colour coding is based on 20 steps between the minimum value of the working-hour growth rate in the second quarter of 2020 (–33.0%), which is marked dark red, and the maximum value (+1.3%), which is marked turquoise. The same colour coding is used in the other columns.

Countries and territories considered in the analysis: Argentina (limited to main cities and metropolitan areas), Austria, Belgium, Brazil, Bulgaria, Chile, Colombia, Costa Rica, Croatia, Cyprus, Czechia, Denmark, Estonia, Finland, France, Georgia, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Mongolia, Montenegro, Netherlands, North Macedonia, Norway, Occupied Palestinian Territory, Peru, Poland, Portugal, Republic of Korea, Republic of Moldova, Romania, Saint Lucia, Serbia, Slovakia, Slovenia, Spain, Sweden, Switzerland, Thailand, Turkey, United Kingdom, United States, Viet Nam.

Source: Total working hours (calculated as the product of employment and average actual weekly working hours) and employment – ILOSTAT database, accessed 6 January 2021; At-risk status – ILO, *ILO Monitor: COVID-19 and the World of Work – Second Edition*, 7 April 2020, table 2.
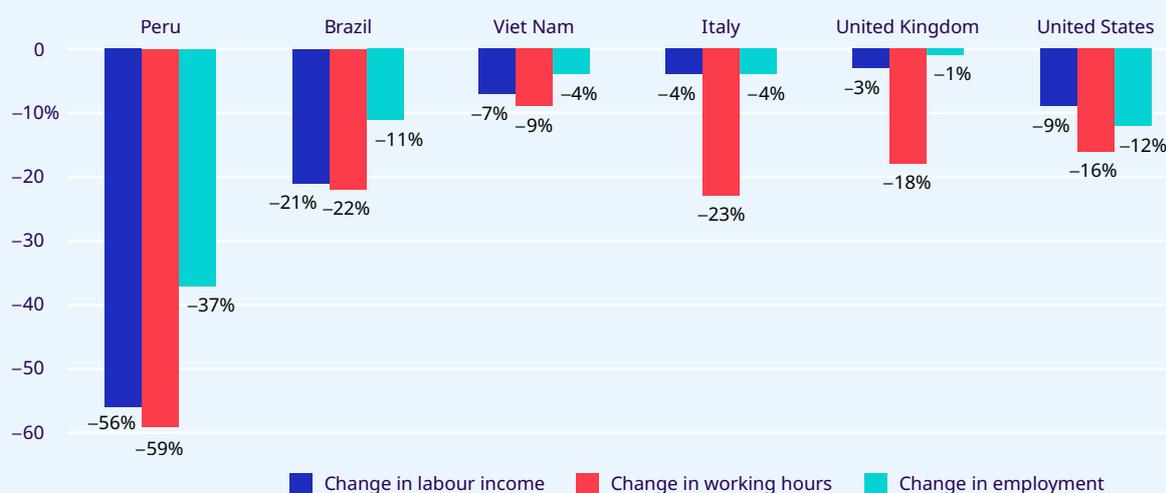
Distributional impact of the COVID-19 pandemic

Along with considerable differences between countries and sectors, the COVID-19 crisis has had a markedly uneven impact on different socio-economic groups. Previous editions of the *ILO Monitor* have analysed the greater impact of the crisis on women, young people and other vulnerable workers in terms of working-hour and employment losses. This analysis is expanded in the present edition to consider the uneven effects of the crisis on **post-support labour income**, with disaggregation by socio-economic status. "Post-support labour income" refers to all income linked to work, including income transfers (in contrast with "labour income", which does not take

into account income support measures).[19] The analysis focuses on a small number of countries (Brazil, Italy, Peru, United Kingdom, United States, Viet Nam) for which ILO harmonized microdata on post-support labour income are available.[20] Six major findings emerge from this analysis.

First, **while massive working-hour losses have led to large reductions in labour income** (see figure 9), **the impact on post-support labour income varies significantly depending on the size of the income support measures** (figure 11). For instance, Peru registered the largest decline in post-support labour income, which plunged by 56 per cent, alongside a steep decline in working hours of 59 per cent. Brazil experienced a decline in post-support labour income of 21 per cent, together with a 22 per cent loss in

▶ **Figure 11. Changes in post-support labour income, working hours and employment, selected countries** (percentage)

Note: Percentage change between the first and second quarters of 2020 (except for Italy and Viet Nam, for which the second quarter of 2019 is used as a comparator because of the substantial effects of the pandemic in these countries during the first quarter of 2020 and also because of seasonality in the Vietnamese data). For the United Kingdom and the United States, the post-support labour income of employees only is used owing to data constraints (employees constitute the majority of the workforce in both countries). In all other cases, post-support labour income includes both employee compensation and self-employment income. The second quarter of 2020 was selected as the period most suitable for analysing the effects of the COVID-19 crisis because this was the period of maximum economic impact in the sampled countries.

Source: Authors' calculations based on ILO harmonized microdata.

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19 In this section, "post-support labour income" is used as a shorthand for labour-related income as measured in labour force surveys. In contrast to the labour income estimates used in previous sections, labour-related income includes all occupational earnings of the self-employed, which could potentially include returns to capital. (For example, self-employed shop owners earn a return from the time they spend working for the business and may also derive returns on their property.) Additionally, labour-related income includes the compensation that workers earn even if they are temporarily not at work (including employees on furlough). This concept is better suited to analyse distributional effects, since it allows the identification of actual compensation changes across different groups as required in the above section. On the other hand, the concept of labour income used in the previous section, which is based on production, makes it possible to track more accurately the effects of the crisis on economic activity in monetary terms.

20 Quarterly labour force survey data are used: Brazil's Continuous National Household Sample Survey (PNADC); Italy's Labour Force Survey; Peru's National Household Survey (ENAHO); the United Kingdom's Labour Force Survey; the United States' Current Population Survey; and Viet Nam's Labour Force Survey. The surveys are not necessarily designed to compute quarterly income figures, so the results presented above should be regarded as tentative.

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16

▶ **Table 2. Change in post-support labour income, by workers' characteristics, selected countries, second quarter of 2020** (percentage)

	Peru	Brazil	Viet Nam	Italy	United Kingdom	United States
All workers	**−56.2**	**−21.3**	**−6.9**	**−4.0**	**−2.9**	**−9.3**
Youth	−73.5	−30.1	−25.1	−11.6	−18.9	−11.0
Self-employed	−70.3	−24.9	−9.6	−21.1	n.a.	n.a.
Employees	−48.9	−19.9	−5.4	−3.7	n.a.	n.a.
Men	−55.3	−20.8	−6.5	−3.8	−5.1	−8.8
Women	−57.9	−22.2	−7.5	−4.3	0.3	−10.0
Low skill	−61.7	−28.4	−6.7	−7.3	n.a.	n.a.
Medium skill	−61.6	−24.2	−8.3	−7.1	n.a.	n.a.
High skill	−48.5	−17.9	−3.2	−0.1	n.a.	n.a.

n.a. = not available

Note: Percentage change between the first and second quarters of 2020 (except for Italy and Viet Nam, for which the second quarter of 2019 is used as a comparator because of the substantial effects of the pandemic in these countries during the first quarter of 2020 and also because of seasonality in the Vietnamese data). For the United Kingdom and the United States, the post-support labour income of employees only is used owing to data constraints (employees constitute the majority of the workforce in both countries). In all other cases, post-support labour income includes both employee compensation and self-employment income. The second quarter of 2020 was selected as the period most suitable for analysing the effects of the COVID-19 crisis because this was the period of maximum economic impact in the sampled countries.

Source: Authors' calculations based on ILO harmonized microdata.

working hours.[21] Meanwhile, the United Kingdom experienced the smallest impact on post-support labour income impact in the sample, with a decline of 3 per cent, compared with an 18 per cent drop in working hours. Italy presents a similar situation, with a 4 per cent decline in post-support labour income and a 23 per cent drop in working hours. Both countries relied on large-scale job retention schemes,[22] which subsidized the income of workers on furlough. Hence, job retention schemes, if implemented on a sufficient scale, can be effective in containing the "spillover" from working-hour losses in terms of labour income and employment losses.[23] **The lack of fiscal space and capacity to implement income support measures, including job retention schemes, in developing countries has had negative implications for workers there**.

Secondly, **young workers (aged 15–24 years) are experiencing much larger decreases in post-support labour income than the overall population** (table 2). The difference is very substantial, ranging from 2 percentage points in United States to 18 percentage points in Peru and Viet Nam. Even in countries where job retention schemes kept the decreases in post-support labour income at moderate levels (such as Italy and the United Kingdom), young people experienced much larger decreases. This indicates that **job retention schemes have been less effective in protecting young workers** than the general population.

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21 The United States and Viet Nam experienced similar decreases in post-support labour income of 9 and 7 per cent, respectively, despite experiencing markedly different decreases in working hours, which fell by 16 per cent in the United States and by 9 per cent in Viet Nam.

22 The other countries in the sample have also taken substantial action to mitigate the effects of COVID-19 on the world of work. The programmes implemented there vary considerably in terms of scope, financial resources and effects. Nonetheless, they cannot be described as job retention schemes (although some components might be considered to be similar to such schemes) and the benefits received are, therefore, not registered in labour force surveys as income from work. Similarly, the employment-stabilizing effects of job retention schemes are absent.

23 This is consistent with the findings in ILO, *Global Wage Report 2020–21: Wages and Minimum Wages in the Time of COVID-19*, 2020; and in Organisation for Economic Co-operation and Development (OECD), *OECD Employment Outlook 2020: Worker Security and the COVID-19 Crisis*, 2020.

Thirdly, **the COVID-19 crisis is having a disproportionate impact on the self-employed**. In Peru, the gap between the decline in post-support labour income for employees and for the self-employed stood at 21 percentage points. In Brazil and Viet Nam, that gap was 5 percentage points. These considerable differences show that the pandemic and the measures taken in response to it have severely impacted the self-employed, who often work in the informal economy. Furthermore, the Italian data suggest that **income support and other policy measures have not been as effective in protecting the livelihoods of the self-employed as those of employees**.[24]

Fourthly, **women have tended to experience significant drops in post-support labour income** in some (but not all) countries (table 2). In Brazil, Peru, Italy, the United States and Viet Nam, women experienced greater losses in post-support labour income than men, while the converse was observed in the United Kingdom.[25]

Fifthly, **losses in post-support labour income have been the highest for workers in low- and medium-skilled jobs.**[26] **Workers in high-skilled occupations (managers, professionals and technicians) were affected to a lesser extent than other workers** in Brazil, Italy, Peru and Viet Nam (table 2). This partly reflects the greater scope for teleworking among high-skilled workers. Workers in medium-skilled occupations (clerical, service and sales, skilled agricultural, craft and related trades, and plant and machinery workers) and low-skilled occupations (elementary occupations) experienced comparatively larger losses in post-support labour income than high-skilled workers. In three out of the four countries for which data are available, medium- and low-skilled workers experienced very similar outcomes.

Finally, inequality is likely to further increase as a result of the type of job losses generated by the crisis. In the United States and the United Kingdom, for instance, significant job losses occurred at the lower end of the labour income distribution, while high-paid jobs were left largely intact (figure 12).[27] By the same token, job recovery has been stronger at the upper end of the labour income distribution, while demand for low-paid jobs has continued to be weak.

In middle-income countries in the sample, the pandemic reduced employment in both lower-medium- and medium-paid jobs, whereas in higher-paid jobs a decline in post-support labour income occurred (instead of job losses) (figure 12). At the same time, the proportion of lowest-paid jobs remained stable.

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24 In Italy, the self-employed experienced a 21 per cent decline in income, which is five times larger than the 4 per cent loss experienced by employees.

25 The UK Office for National Statistics reports similar findings for April 2020 using a different data source (Annual Survey of Hours and Earnings (ASHE) instead of the Labour Force Survey). In the ASHE data, a temporary reduction in the gender pay gap was registered during April 2020, compared to the previous year. See United Kingdom, Office for National Statistics, "Gender Pay Gap in the UK: 2020", 3 November 2020.

26 Using a classification of occupations by skill level (low, medium and high), based on the International Standard Classification of Occupations (ISCO), we were able to analyse the impact on post-support labour income across different skills groups. Owing to data limitations (a break in the number of available post-support labour income data covering low-skilled occupations), we could not compute the decline in post-support labour income for workers with different skill levels in the United Kingdom. For the United States, no data are readily available with disaggregation by skill level.

27 In Italy, in contrast, the largest employment losses were in medium-paid jobs.

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18

▶ **Figure 12. Distribution of employment, by post-support labour income, selected countries**
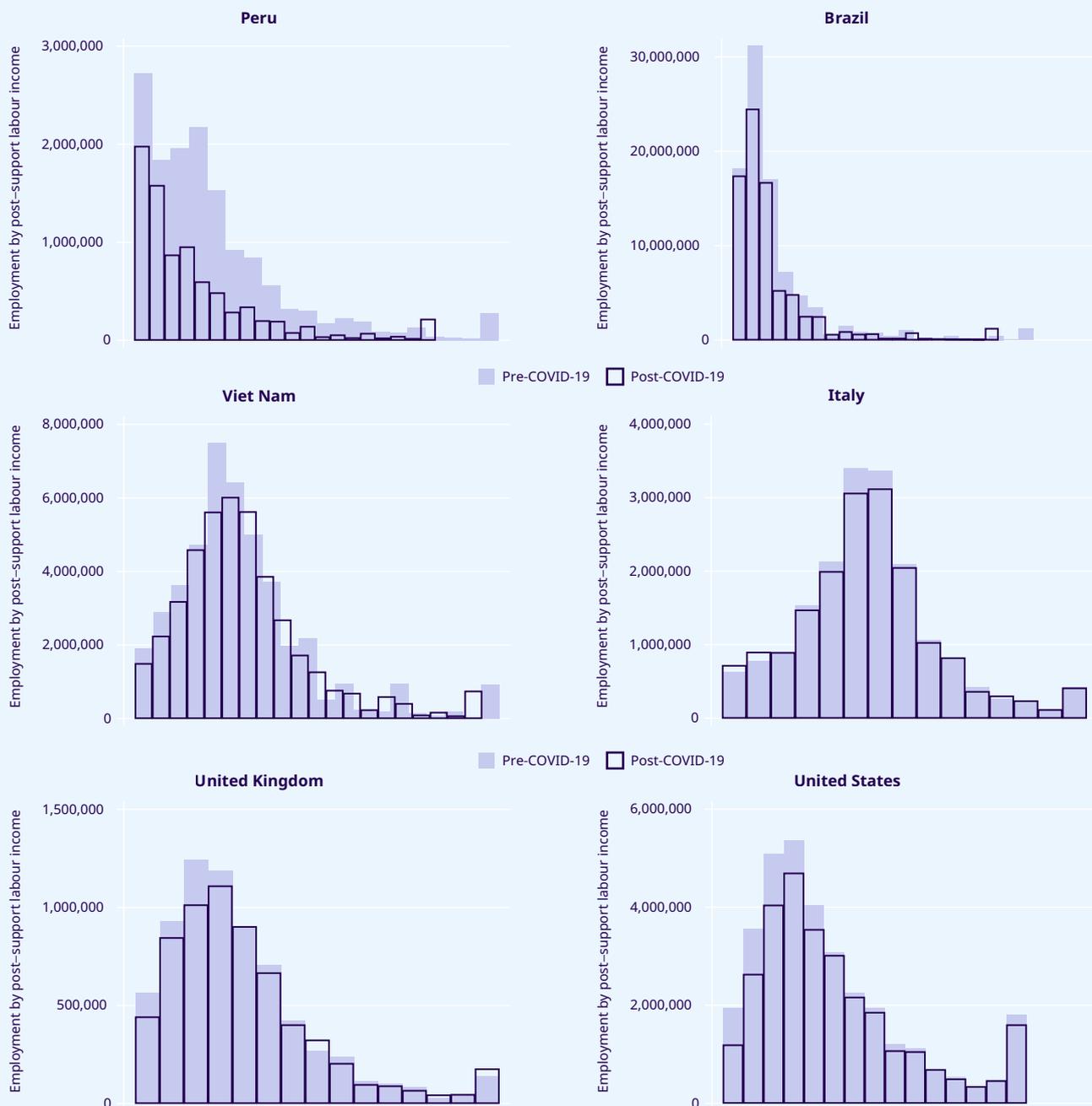
Note: Post-COVID-19 period = second quarter of 2020; pre-COVID-19 period = first quarter of 2020 (except for Italy and Viet Nam, for which the second quarter of 2019 is used as a comparator because of the substantial effects of the pandemic in these countries during the first quarter of 2020 and also because of seasonality in the Vietnamese data). For the United Kingdom and the United States, the post-support labour income of employees only is used owing to data constraints (employees constitute the majority of the workforce in both countries). In all other cases, post-support labour income includes both employee compensation and self-employment income. The second quarter of 2020 was selected as the period most suitable for analysing the effects of the COVID-19 crisis because this was the period of maximum economic impact in the sampled countries. Post-support labour income is winsorized at the 1st and 99th percentiles for the purposes of graphical representation. The histograms are weighted by the sampling weight rounded to the nearest integer (owing to the requirements of the algorithm for graphical representation).

Source: Authors' calculations based on ILO harmonized microdata.

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19

▶ **Box 2. Complementary analysis: Low-skilled workers have shouldered a large share of the job losses**

The uneven impact of the crisis on workers with different skill levels can be seen not only in terms of income but also when looking at decreases in employment. A sample of 50 countries shows that the magnitude of job losses tended to be much larger for low-skilled workers (figure B2). The mean loss for low-skilled workers was 10.8 per cent in the second quarter of 2020, compared with 7.5 per cent for medium-skilled workers and 2.2 per cent for high-skilled workers.

▶ **Figure B2. Country-level changes in employment, by skill level, second quarter of 2020 (year-on-year)** (percentage)
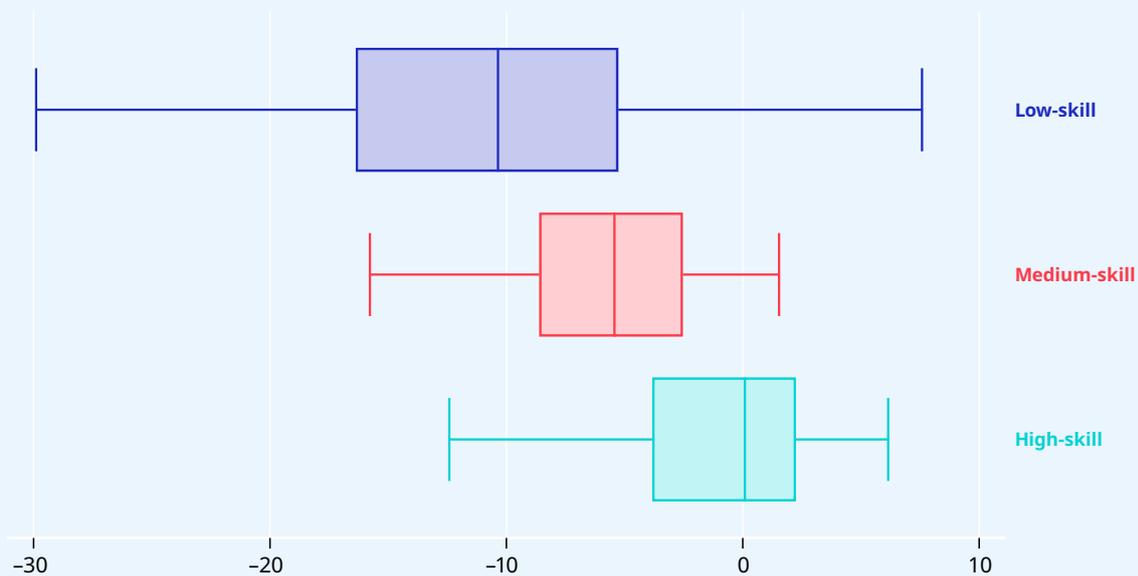
Low-skill = elementary occupations and skilled agricultural, forestry and fishery workers; Medium-skill = clerical support workers, service and sales workers, craft and related trades workers, plant and machine operators, and assemblers; High-skill = managers, professionals and technicians, and associate professionals. The skill levels are based on ISC0-08; see ILOSTAT for further details.

Note: The sample consists of 50 high- and middle-income countries and territories with employment data for the second quarter of 2020 disaggregated by occupation. The box graph should be read as follows: (a) the vertical line in the middle of the box represents the median value (50th percentile); (b) the left-hand side of the box (whisker) represents the 25th percentile; (c) the right-hand side of the box (whisker) represents the 75th percentile; (d) the adjacent lines to the left and right of the box represent the lowest and highest values, respectively.

Source: ILOSTAT database, accessed 12 January 2021.

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20

▶ Part III. Looking ahead: Supporting a human-centred recovery

The updated analysis presented in this new edition of the *ILO Monitor* confirms that **COVID-19 has resulted in the most severe crisis for the world of work since the Great Depression of the 1930s.** The new estimates also show that there is significant variation across and within labour markets around the world, with those already disadvantaged being hit hardest.

There are **signs of a recovery on the horizon, with evidence of a significant rebound in economic activity and labour markets in the second half of 2020**. However, the recovery will continue to be uneven and subject to great uncertainties, threatening to increase inequality within and between countries. The actual speed and quality of the recovery in 2021 will depend on a wide range of political, economic and health-related factors. While effective control of the virus – notably through rapid, large-scale roll-out of vaccination campaigns – will be crucial, this will need to be accompanied by the right economic and social policies if the world of work is to be built back better.

Policy interventions must focus on robust and broad-based recovery by addressing **employment, income, workers' rights and social dialogue: a human-centred recovery.** Restoration of solid and sustained growth in national income is a necessary but not sufficient condition for a successful exit from the crisis, particularly given the wide variation in the impact it has had on different job categories, socio-economic groups, sectors and regions, as highlighted in this and earlier editions of the *ILO Monitor*.

Therefore, five interrelated issues need to be at the forefront of policymakers' priorities in 2021.

1. Macroeconomic policy will need to remain accommodative in 2021 and beyond to combat the large work deficit and income losses generated by the pandemic. Fiscal stimulus packages, particularly income support measures, continue to be necessary to protect households and businesses and to boost aggregate demand. Investment, spurred by public investment, is crucial to rebuilding economies and creating jobs. As enterprises continue to experience difficult conditions in 2021, it will be essential not only to protect jobs but also to ensure that economic activity can rebound. To improve labour market resilience, institutions need to be further strengthened, most notably social protection systems. Implementing such policies requires governments that have access to necessary finance to use it, and not to resort to premature fiscal consolidation.

2. International action to support low- and middle-income countries will continue to be critical. Many developing countries not only have limited financial

means to buy vaccines, but are also constrained in implementing the economic and employment policies needed to support the recovery. The continued impact of the crisis in particular on young people in these countries can undermine growth, and potentially cause long-term structural damage and increasing informality. All this threatens to undo the significant achievements in poverty reduction made over the past decades. A widening gap between developed and developing countries would result, reversing the trend of global economic convergence. For this reason, international solidarity in rolling out vaccines (as exemplified by the COVID-19 Vaccine Global Access (COVAX) Facility) and financial and policy support to counter the ongoing employment effects of the crisis, including debt relief, are urgently needed.

3. The crisis has had particularly devastating effects on many vulnerable population groups and sectors around the globe. Young people, women, the low-paid and low-skilled workers have less potential to achieve recovery quickly, and the risk of long-term scarring and detachment from the labour market is all too real in their case. Policy measures will need to be targeted at them, since general support will not automatically reach them. Careful monitoring of labour markets is critical to the design and implementation of targeted strategies so that the recovery is embedded firmly in processes of inclusive and equitable growth.

4. A carefully balanced sectoral policy dimension in recovery strategies is needed to support sectors that have been hit the hardest and that risk continuing to fall behind, while realizing the full potential for creating jobs in fast-growing sectors. At the same time, measures are needed to assist businesses (especially micro, small and medium-sized enterprises), workers and jobseekers to adjust to the post-COVID-19 economy, including employment services, active labour market programmes and skilling initiatives, all adapted to the new realities. Again, active monitoring is crucial to identify changes in sectors and to determine whether policies are meeting their goals. Such approaches will be critical to ensuring a successful and just transition to the digital and green economies of the future.

5. Against a backdrop of structural change and persisting deficits, policymakers need to seize the opportunity to develop and implement recovery strategies, through social dialogue with employers' and workers' organizations, that will reshape trajectories to meet longer-term goals and promote the transition to a more inclusive, fair and sustainable economy.

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21

▶ Statistical annex

Working-hour losses in 2020 disaggregated by regions

As already noted in previous editions of the *ILO Monitor*, the Americas are the region most heavily impacted by the COVID-19 crisis, registering a total working-hour loss of 13.7 per cent during 2020. Within the region, Latin America and the Caribbean registered the largest loss, at 16.2 per cent. The working-hour losses of the two largest countries in Latin America and the Caribbean, Brazil and Mexico, are estimated at 15.0 and 12.5 per cent, respectively. In Northern America, the loss is estimated to have been lower, at 9.2 per cent. Canada and the United States present very similar estimated decreases of 9.2 and 9.3 per cent, respectively.

Europe and Central Asia is the second most affected region, with an estimated decline in working hours of 9.2 per cent. Southern Europe is the most affected subregion, at 12.3 per cent, driven by the losses in Italy and Spain of 13.5 and 13.2 per cent, respectively. The countries with the largest populations in Eastern Europe and Central Asia respectively, the Russian Federation and Turkey, present estimated losses of 8.5 and 14.7 per cent. Europe and Central Asia is the only region for which the estimate for the fourth quarter of 2020 is worse than that for the third quarter.

In the Arab States, the total estimated decline in working hours in 2020 was 9.0 per cent. No labour force survey data covering the impact of the COVID-19 crisis were available in ILO data repositories for any country in the region at the time of producing the estimates. Hence, the uncertainty associated with these is substantial. The two most populous countries in the region, Iraq and Saudi Arabia, are estimated to have registered losses of 8.3 and 10.8 per cent, respectively.

In Asia and the Pacific, the annual estimated decline in working hours is 7.9 per cent. The Asian subregions present very heterogeneous losses, with Eastern Asia at 4.2 per cent, South-Eastern Asia and the Pacific at 8.2 per cent, and Southern Asia at 12.7 per cent. The bulk of the loss in Eastern Asia occurred during the first quarter (driven by the COVID-19 outbreak in China) and was followed by a rapid recovery. In contrast, the rest of the region experienced large losses during the second quarter, a consequence of the strict containment measures implemented across the region, followed by a strong recovery. Southern Asia in particular (driven by India) exhibits this trend, registering a loss of 34.5 per cent in the second quarter, and one of 9.9 per cent in the third quarter. The two largest countries in the region, China and India, registered estimated annual average losses of 4.1 per cent and 13.7 per cent, respectively.

Working hours in Africa declined by 7.7 per cent in 2020, which is relatively small compared to other regions. The new estimates for working-hour losses across subregions indicate that Southern Africa experienced the sharpest annual decline (12.6 per cent), followed by Northern Africa (10.4 per cent), Eastern Africa (7.2 per cent), Central Africa (6.8 per cent) and Western Africa (6.4 per cent). In all subregions, the worst impact occurred during the second quarter. The two most populous countries in the region, Nigeria and Ethiopia, present similar rates of working-hour losses, 8.9 and 9.5 per cent in annual terms.

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22

▶ **Table A1. Quarterly and annual estimates of working-hour losses, world and by region**
(percentage and full-time equivalent jobs)

Reference area	Percentage working hours lost (%) relative to Q4/2019					Equivalent number of full-time jobs (48 hours/week) lost (millions)				
	Q1/2020	Q2/2020	Q3/2020	Q4/2020	**2020**	Q1/2020	Q2/2020	Q3/2020	Q4/2020	**2020**
World	5.2	18.2	7.2	4.6	**8.8**	150	525	205	130	**255**
Africa	2.3	16.0	8.0	4.5	**7.7**	9	60	30	17	**29**
Northern Africa	2.5	23.3	9.4	6.5	**10.4**	1	14	6	4	**6**
Sub-Saharan Africa	2.3	14.6	7.7	4.1	**7.2**	7	45	24	13	**22**
Central Africa	2.2	14.5	7.3	3.4	**6.8**	1	7	4	2	**3**
Eastern Africa	2.4	13.5	8.6	4.2	**7.2**	3	18	12	6	**10**
Southern Africa	0.2	26.8	15.3	8.2	**12.6**	0	5	3	1	**2**
Western Africa	2.4	14.0	5.7	3.6	**6.4**	3	16	6	4	**7**
Americas	3.2	27.6	14.9	8.9	**13.7**	12	105	55	34	**50**
Latin America and the Caribbean	4.1	32.8	17.5	10.3	**16.2**	10	80	42	25	**39**
Caribbean	2.9	24.7	11.5	7.7	**11.7**	0	4	2	1	**2**
Central America	1.4	29.3	14.6	10.0	**13.8**	1	20	10	7	**10**
South America	5.4	35.1	19.4	10.8	**17.7**	8	55	30	17	**27**
Northern America	1.6	18.5	10.4	6.5	**9.2**	2	25	14	9	**13**
Arab States	3.3	18.8	9.4	4.7	**9.0**	2	10	5	2	**5**
Asia and the Pacific	6.5	16.9	5.4	2.8	**7.9**	115	295	95	50	**140**
Eastern Asia	11.0	3.3	1.5	0.9	**4.2**	90	27	12	8	**35**
South-Eastern Asia and the Pacific	2.9	17.4	7.0	5.6	**8.2**	8	50	21	16	**24**
South-Eastern Asia	3.0	17.8	7.2	5.7	**8.4**	8	50	20	16	**24**
Pacific Islands	1.0	8.1	4.0	1.9	**3.7**	0	1	1	0	**1**
Southern Asia	2.2	34.5	9.9	4.1	**12.7**	14	215	60	26	**80**
Europe and Central Asia	3.9	17.2	6.8	8.9	**9.2**	13	55	22	29	**30**
Northern, Southern and Western Europe	4.5	17.2	6.1	9.7	**9.4**	7	27	10	15	**15**
Northern Europe	4.2	16.3	9.5	10.1	**10.0**	2	6	4	4	**4**
Southern Europe	6.7	23.9	7.0	11.8	**12.3**	3	12	3	6	**6**
Western Europe	3.1	12.9	3.5	8.0	**6.9**	2	9	2	5	**5**
Eastern Europe	2.8	12.8	6.5	7.6	**7.4**	3	14	7	8	**8**
Central and Western Asia	4.3	25.6	9.1	9.2	**12.0**	3	16	6	6	**7**

Note: Values of full-time equivalent (FTE) jobs lost above 50 million are rounded to the nearest 5 million; values below that threshold are rounded to the nearest million. The equivalent losses in full-time jobs are presented to illustrate the magnitude of the estimates of hours lost. The FTE values are calculated on the assumption that reductions in working hours were borne exclusively and exhaustively by a subset of full-time workers, and that the rest of workers did not experience any reduction in hours worked. The figures in this table should not be interpreted as numbers of jobs actually lost or as actual increases in unemployment.

Source: ILO nowcasting model (see Technical Annex 1).

▶ **Table A2. Estimates of working-hour losses for 2020 and projections for 2021, world and by income groups and broad subregions** (percentage and full-time equivalent jobs)

	Percentage working hours lost (%) relative to Q4/2019				Equivalent number of full-time jobs (48 hours/week) lost (millions)			
	2020	Baseline 2021	Pessimistic 2021	Optimistic 2021	2020	Baseline 2021	Pessimistic 2021	Optimistic 2021
World	**8.8**	**3.0**	**4.6**	**1.3**	**255**	**90**	**130**	**36**
Low-income countries	6.7	1.8	3.4	1.1	12	4	6	2
Lower-middle-income countries	11.3	2.6	4.7	1.2	110	26	46	12
Upper-middle-income countries	7.3	2.9	4.2	1.1	90	36	50	14
High-income countries	8.3	4.7	5.7	1.8	39	22	27	8
Africa	**7.7**	**2.5**	**4.2**	**1.4**	**29**	**10**	**16**	**5**
Northern Africa	10.4	3.8	5.3	2.0	6	2	3	1
Sub-Saharan Africa	7.2	2.3	4.0	1.3	22	7	13	4
Americas	**13.7**	**5.9**	**7.1**	**2.6**	**50**	**22**	**27**	**10**
Latin America and the Caribbean	16.2	6.3	7.7	2.7	39	15	19	6
Northern America	9.2	5.0	5.9	2.4	13	7	8	3
Arab States	**9.0**	**2.9**	**3.8**	**1.3**	**5**	**1**	**2**	**1**
Asia and the Pacific	**7.9**	**2.1**	**3.7**	**0.8**	**140**	**36**	**65**	**14**
Eastern Asia	4.2	1.2	2.4	0.3	35	10	20	3
South-Eastern Asia and the Pacific	8.2	3.4	4.7	1.4	24	10	14	4
Southern Asia	12.7	2.5	4.9	1.1	80	16	31	7
Europe and Central Asia	**9.2**	**5.7**	**7.0**	**2.0**	**30**	**18**	**22**	**7**
Northern, Southern and Western Europe	9.4	6.2	7.5	2.0	15	10	12	3
Eastern Europe	7.4	4.9	5.8	1.8	8	5	6	2
Central and Western Asia	12.0	5.9	7.6	2.3	7	4	5	1

Source: ILO nowcasting model (see Technical Annex 1).

▶ **Table A3. Differences in employment, labour force and unemployment relative to 2019, by sex and age, world and by income groups and regions**

		Employment		Labour force		Unemployment	
		Millions	Rate*	Millions	Rate*	Millions	Rate*
World	**Total**	**–114**	**–2.7**	**–81**	**–2.2**	**33**	**1.1**
	Female	–54	–2.4	–45	–2.1	9	0.9
	Male	–60	–3.0	–36	–2.2	24	1.2
	Youth	–39	–3.4	–40	–3.4	–0.7	1.0
	Adult	–74	–2.6	–41	–1.9	33	1.2
Low-income countries	**Total**	**–0.9**	**–2.2**	**0.4**	**–2.0**	**1.3**	**0.5**
	Female	–1.9	–2.6	–1.5	–2.5	0.4	0.4
	Male	0.9	–1.8	1.9	–1.4	0.9	0.6
	Youth	–2.4	–3.0	–2	–2.8	0.3	0.8
	Adult	1.5	–1.8	2.4	–1.6	0.9	0.4
Lower-middle-income countries	**Total**	**–47**	**–3.2**	**–35**	**–2.7**	**11**	**1.2**
	Female	–17	–2.3	–17	–2.2	0.5	0.4
	Male	–29	–4.1	–19	–3.1	11	1.6
	Youth	–19	–3.8	–22	–4.4	–3	0.2
	Adult	–27	–3.1	–13	–2.2	14	1.6
Upper-middle-income countries	**Total**	**–48**	**–2.6**	**–40**	**–2.3**	**8**	**0.7**
	Female	–26	–2.7	–24	–2.5	2.7	0.7
	Male	–22	–2.5	–17	–2.1	5	0.8
	Youth	–13	–3.0	–13	–3.0	–0.2	1.1
	Adult	–35	–2.6	–27	–2.2	8	0.7
High-income countries	**Total**	**–18**	**–2.0**	**–6**	**–0.9**	**12**	**2.0**
	Female	–9	–1.9	–3.1	–0.8	6	2.1
	Male	–9	–2.2	–2.9	–0.9	6	1.9
	Youth	–5	–3.2	–3	–1.7	2.1	3.9
	Adult	–13	–1.9	–2.9	–0.8	10	1.8
Africa	**Total**	**–4**	**–2.1**	**–2.1**	**–2.0**	**1.9**	**0.4**
	Female	–3.7	–2.3	–3.2	–2.3	0.5	0.3
	Male	–0.3	–2.0	1.1	–1.7	1.4	0.5
	Youth	–3.6	–2.4	–3.2	–2.4	0.3	0.6
	Adult	–0.4	–2.0	1.1	–1.9	1.4	0.4
Northern Africa	**Total**	**–2.3**	**–2.1**	**–1.8**	**–1.9**	**0.5**	**1.0**
	Female	–0.8	–1.2	–0.6	–1.2	0.1	1.6
	Male	–1.5	–3.0	–1.2	–2.7	0.4	0.8
	Youth	–0.8	–2.2	–0.8	–2.0	0.1	3.0
	Adult	–1.4	–2.2	–1.1	–2.0	0.4	0.7

▶ **Table A3. (cont'd)**

		Employment		Labour force		Unemployment	
		Millions	Rate*	Millions	Rate*	Millions	Rate*
Sub-Saharan Africa	**Total**	**–1.7**	**–2.2**	**–0.3**	**–2.1**	**1.4**	**0.3**
	Female	–2.9	–2.7	–2.6	–2.7	0.3	0.3
	Male	1.3	–1.7	2.3	–1.5	1.1	0.4
	Youth	–2.8	–2.5	–2.5	–2.5	0.3	0.5
	Adult	1.1	–2.1	2.1	–1.9	1.1	0.3
Americas	**Total**	**–38**	**–5.4**	**–25**	**–3.8**	**13**	**3.1**
	Female	–19	–5.3	–13	–3.9	6	3.3
	Male	–19	–5.6	–11	–3.8	7	3.0
	Youth	–10	–6.0	–8	–5.0	1.6	4.0
	Adult	–28	–5.3	–17	–3.6	12	3.0
Latin America and the Caribbean	**Total**	**–28**	**–6.3**	**–23**	**–5.4**	**4.9**	**2.3**
	Female	–14	–6.1	–12	–5.5	1.7	2.4
	Male	–14	–6.6	–10	–5.3	3.2	2.3
	Youth	–7	–6.2	–7	–6.1	0	2.7
	Adult	–20	–6.4	–16	–5.3	4.7	2.3
Northern America	**Total**	**–10**	**–4.0**	**–2.1**	**–1.2**	**8**	**4.5**
	Female	–5	–3.9	–1.1	–1.2	4.1	4.9
	Male	–5	–4.1	–1	–1.2	4.2	4.3
	Youth	–2.8	–5.7	–1.3	–2.4	1.6	6.8
	Adult	–8	–3.7	–0.8	–1.0	7	4.2
Arab States	**Total**	**–1.1**	**–2.0**	**–0.1**	**–1.2**	**1**	**1.8**
	Female	–0.3	–0.9	0	–0.4	0.3	2.9
	Male	–0.8	–2.9	–0.1	–1.9	0.8	1.6
	Youth	–0.5	–1.7	–0.4	–1.3	0.1	2.7
	Adult	–0.5	–2.3	0.3	–1.4	0.9	1.7
Asia and the Pacific	**Total**	**–62**	**–2.5**	**–48**	**–2.1**	**14**	**0.8**
	Female	–26	–2.1	–25	–2.0	1.5	0.4
	Male	–36	–2.9	–23	–2.2	13	1.1
	Youth	–23	–3.4	–26	–3.8	–3	0.2
	Adult	–38	–2.4	–22	–1.8	16	1.0
Eastern Asia	**Total**	**–17**	**–1.5**	**–13**	**–1.3**	**3.3**	**0.4**
	Female	–10	–1.7	–9	–1.6	1.3	0.4
	Male	–6	–1.2	–4.4	–1.0	2	0.4
	Youth	–4.3	–1.7	–4.1	–1.6	0.2	0.7
	Adult	–12	–1.5	–9	–1.3	2.9	0.4

▶ **Table A3. (cont'd)**

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26

▶ **Table A3. (cont'd)**

		Employment		Labour force		Unemployment	
		Millions	Rate*	Millions	Rate*	Millions	Rate*
South-Eastern Asia and the Pacific	**Total**	**–7**	**–2.2**	**–4.7**	**–1.8**	**2.1**	**0.6**
	Female	–3.7	–2.1	–2.9	–1.8	0.8	0.6
	Male	–3.1	–2.2	–1.8	–1.7	1.3	0.7
	Youth	–3.4	–2.9	–3.2	–2.7	0.3	1.0
	Adult	–3.3	–2.1	–1.5	–1.6	1.8	0.6
Southern Asia	**Total**	**–38**	**–3.5**	**–30**	**–3.0**	**9**	**1.5**
	Female	–12	–2.2	–13	–2.3	–0.6	0.1
	Male	–26	–4.8	–17	–3.6	9	1.9
	Youth	–15	–4.4	–18	–5.4	–3.4	–0.1
	Adult	–23	–3.3	–11	–2.3	12	2.1
Europe and Central Asia	**Total**	**–9**	**–1.4**	**–6**	**–1.0**	**2.7**	**0.7**
	Female	–4.8	–1.3	–3.5	–1.0	1.2	0.7
	Male	–4.4	–1.4	–2.9	–1.0	1.5	0.7
	Youth	–2.7	–2.3	–2.4	–2.1	0.3	1.6
	Adult	–6	–1.2	–4.1	–0.9	2.4	0.7
Northern, Southern and Western Europe	**Total**	**–3.6**	**–1.1**	**–2.4**	**–0.8**	**1.2**	**0.6**
	Female	–1.7	–1.0	–1.2	–0.7	0.5	0.6
	Male	–1.9	–1.2	–1.2	–0.9	0.7	0.6
	Youth	–1.1	–2.1	–0.8	–1.5	0.3	2.0
	Adult	–2.5	–0.9	–1.6	–0.7	0.9	0.5
Eastern Europe	**Total**	**–3.2**	**–1.2**	**–1.9**	**–0.6**	**1.3**	**1.0**
	Female	–1.8	–1.2	–1.1	–0.7	0.7	1.2
	Male	–1.4	–1.1	–0.9	–0.6	0.6	0.8
	Youth	–0.6	–1.8	–0.5	–1.6	0.1	1.6
	Adult	–2.6	–1.1	–1.4	–0.5	1.2	1.0
Central and Western Asia	**Total**	**–2.3**	**–2.4**	**–2.1**	**–2.3**	**0.2**	**0.6**
	Female	–1.2	–2.3	–1.3	–2.4	0	0.4
	Male	–1.1	–2.6	–0.9	–2.3	0.2	0.7
	Youth	–1	–3.3	–1.1	–3.6	–0.1	0.8
	Adult	–1.4	–2.3	–1	–2.1	0.3	0.6

* The rates in the three columns are, respectively, the employment-to-population ratio; the labour force participation rate; and the unemployment rate.

Source: See Technical Annex 2 for further details.

▶ Technical annexes

Annex 1. Working-hour losses: The ILO's nowcasting model

The ILO has continued to monitor the labour market impacts of the COVID-19 crisis using its "nowcasting" model. This is a data-driven statistical prediction model that provides a real-time measure of the state of the labour market, drawing on real-time economic and labour market data. In other words, no scenario is specifically defined for the unfolding of the crisis; rather, the information embedded in the real-time data implicitly defines such a scenario. The target variable of the ILO nowcasting model is hours worked[28] – more precisely, the decline in hours worked that can be attributed to the outbreak of COVID-19. To estimate this decline, a fixed reference period is set as the baseline, namely, the fourth quarter of 2019 (seasonally adjusted). The model produces an estimate of the decline in hours worked during the first, second, third and fourth quarters of 2020 relative to this baseline. (The figures reported should therefore not be interpreted as quarterly or inter-annual growth rates.) In addition, to compute the full-time employment (FTE) equivalents of the percentage decreases in working hours, a benchmark of weekly hours worked before the COVID-19 crisis is used – this benchmark is also used to compute the time series of average hours worked per person aged 15 to 64.

For this edition of the *ILO Monitor*, the information available to track developments in the labour market has increased yet again. In particular, the following data sources have been incorporated into the model: additional labour force survey data for the second and third quarters of 2020; additional administrative data on the labour market (for example, registered unemployment and up-to-date mobile phone data from Google Community Mobility Reports). Additionally, the most recent values of the COVID-19 Government Response Stringency Index (hereafter "Oxford Stringency Index"), along with data on the incidence of COVID-19, have been used in the estimates. Principal component analysis was used to model the relationship of these variables with hours worked. Drawing on available real-time data, the modelling team estimated the historical statistical relationship between these indicators and hours worked, and used the resulting coefficients to predict how hours worked change in response to the most recent observed values of the nowcasting indicators. Multiple candidate relationships were evaluated on the basis of their prediction accuracy and performance around turning points to construct a weighted average nowcast. For countries for which high-frequency data on economic activity were available, but either data on the target variable itself were not available or the above methodology did not work well, the coefficients estimated and data from the panel of countries were used to produce an estimate.

An indirect approach was applied for the remaining countries: this involves extrapolating the relative hours lost from countries with direct nowcasts. The basis for this extrapolation was the observed mobility decline from the Google Community Mobility Reports[29] and the Oxford Stringency Index, since countries with comparable drops in mobility and similarly stringent restrictions are likely to experience a similar decline in hours worked. From the Google Community Mobility Reports, an average of the workplace and "retail and recreation" indices was used. The stringency and mobility indices were combined into a single variable[30] using principal component analysis.[31] Additionally, for countries without data on restrictions, mobility data, if available, and up-to-date data on the incidence of COVID-19 were used to extrapolate the impact on hours worked. Because of countries' different practices in counting cases, the more homogenous concept of deceased patients was used as a proxy of the extent of the pandemic. The variable was computed at an equivalent monthly frequency, but the data were updated daily, the source being the European Centre for Disease Prevention and Control. Finally, for a small number of countries with no readily available data at the time of estimation, the regional average was used to impute the target variable. Table A4 summarizes the information and statistical approach used to estimate the target variable for each country.

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28 Hours actually worked in the main job.

29 Adding mobility decline as a variable makes it possible to strengthen the extrapolation of results to countries with more limited data. The Google Community Mobility Reports are used alongside the Oxford Stringency Index to take into account the differential implementation of containment measures. This variable has only partial coverage for the first quarter of 2020, and so for the estimates for that quarter only the stringency and COVID-19 incidence data are used. The data source is available at: https://www.google.com/covid19/mobility/.

30 Missing mobility observations were imputed on the basis of stringency.

31 To make up for data scarcity in the fourth quarter of 2020, and also to take advantage of the time-series dimension that mobility and stringency data contain, a mixed approach was used for countries for which a direct nowcast of the fourth quarter was available. In particular, the estimate was obtained from the average of the direct nowcast of the fourth quarter and the extrapolation based on the principal component of mobility and stringency. The extrapolation was corrected as a function of the observed difference in the second or third quarter (depending on data availability) between the extrapolation and the direct nowcast for each individual country.

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28

▶ **Table A4. Approaches used to estimate working-hour losses**

Approach	Data used	Reference area
Nowcasting based on high frequency economic data	High-frequency economic data, including: labour force survey data; administrative register labour market data; Purchasing Managers Index (country or group); national accounts data; consumer and business confidence surveys	Albania, Argentina, Australia, Austria, Belgium, Bosnia and Herzegovina, Brazil, Bulgaria, Canada, Chile, China, Colombia, Costa Rica, Croatia, Cyprus, Czechia, Denmark, Ecuador, Estonia, Finland, France, Georgia, Germany, Greece, Hong Kong (China), Hungary, Iceland, India, Iran (Islamic Republic of), Ireland, Israel, Italy, Japan, Latvia, Lithuania, Luxembourg, Malaysia, Malta, Mexico, Mongolia, Montenegro, Netherlands, New Zealand, North Macedonia, Norway, Peru, Philippines, Poland, Portugal, Puerto Rico, Republic of Korea, Republic of Moldova, Romania, Russian Federation, Saudi Arabia, Serbia, Singapore, Slovakia, Slovenia, South Africa, Spain, Sweden, Switzerland, Thailand, Turkey, Ukraine, United Kingdom, United States, Uruguay, Viet Nam
Extrapolation based on mobility and containment measures	Google Community Mobility Reports (Q2/2020 and onwards) and/or Oxford Stringency Index	Afghanistan, Algeria, Angola, Azerbaijan, Bahamas, Bahrain, Bangladesh, Barbados, Belarus, Belize, Benin, Bhutan, Bolivia (Plurinational State of), Botswana, Brunei Darussalam, Burkina Faso, Burundi, Cabo Verde, Cambodia, Cameroon, Central African Republic, Chad, Congo, Côte d'Ivoire, Cuba, Democratic Republic of the Congo, Djibouti, Dominican Republic, Egypt, El Salvador, Eritrea, Eswatini, Ethiopia, Fiji, Gabon, Gambia, Ghana, Guam, Guatemala, Guinea, Guinea-Bissau, Guyana, Haiti, Honduras, Indonesia, Iraq, Jamaica, Jordan, Kazakhstan, Kenya, Kuwait, Kyrgyzstan, Lao People's Democratic Republic, Lebanon, Lesotho, Liberia, Libya, Macao (China), Madagascar, Malawi, Mali, Mauritania, Mauritius, Morocco, Mozambique, Myanmar, Namibia, Nepal, Nicaragua, Niger, Nigeria, Occupied Palestinian Territory, Oman, Pakistan, Panama, Papua New Guinea, Paraguay, Qatar, Rwanda, Senegal, Sierra Leone, Solomon Islands, Somalia, South Sudan, Sri Lanka, Sudan, Suriname, Syrian Arab Republic, Tajikistan, Timor-Leste, Togo, Tonga, Trinidad and Tobago, Tunisia, Turkmenistan, Uganda, United Arab Emirates, United Republic of Tanzania, Uzbekistan, Vanuatu, Venezuela (Bolivarian Republic of), Yemen, Zambia, Zimbabwe
Extrapolation based on the incidence of COVID-19	COVID-19 incidence proxy, detailed subregion	Armenia, Comoros, Equatorial Guinea, French Polynesia, Maldives, New Caledonia, Saint Lucia, Saint Vincent and the Grenadines, Sao Tome and Principe, United States Virgin Islands, Western Sahara
Extrapolation based on region	Detailed subregion	Channel Islands, Korea (Democratic People's Republic of), Samoa

Notes: (1) The reference areas included correspond to the territories for which ILO modelled estimates are produced. **(2)** Countries and territories are classified according to the type of approach used for Q2/2020. **(3)** For the Philippines, the releases of April 2020 and October 2020 of the Labour Force Survey were used; the data were benchmarked against the April and October 2019 data; the results for the missing months were directly interpolated or extrapolated using Google Community Mobility Reports data. **(4)** For India, the employment-to-population ratio of workers, excluding those temporarily absent from work, is used as a proxy of hours worked. Evidence from other countries suggests that this proxy is reasonably accurate, though it does tend to underestimate the actual working-hour loss. The data are taken from the Consumer Pyramids Household Survey conducted by the Centre for Monitoring Indian Economy, and in particular from: Marianne Bertrand, Rebecca Dizon-Ross, Kaushik Krishnan and Heather Schofield, "Employment, Income, and Consumption in India during and after the Lockdown: A V-Shape Recovery?", Rustandy Center for Social Sector Innovation, 18 November 2020.

The latest data update spanned the period from 10 to 22 December 2020, depending on the source. Because of the exceptional situation, including the scarcity of relevant data, the estimates are subject to a substantial amount of uncertainty. The unprecedented labour market shock created by the COVID-19 pandemic is difficult to assess by benchmarking against historical data. Furthermore, at the time of estimation, consistent time series of readily available and timely high-frequency indicators, including labour force survey data, remained scarce. These limitations result in a high overall degree of uncertainty. For these reasons, the estimates are being regularly updated and revised by the ILO.

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29

Annex 2. Estimating employment, unemployment and inactivity in 2020

This annex describes the methodology used to estimate employment,[32] unemployment and inactivity in 2020. The estimation for aggregate indicators (meaning all sexes and ages combined) is performed in two steps. The first step involves estimating the relationship between relative working-hour losses and relative employment losses, and predicting that relationship for countries with missing data. The second step involves estimating how employment losses are distributed between changes in unemployment and inactivity, since those two must add up to the change in employment. Estimation of the indicators for the different demographic groups requires further steps: we estimate, for example, the excess employment loss of women versus men, and reconcile the result to match the aggregate employment loss. More details are provided below on each of those steps.

In general, the estimation of labour market indicators for 2020 is performed by identifying the parameters of statistical relationships between observed labour market indicators derived from labour force surveys and explanatory variables. There are observations of labour market indicators from 68 countries in the second quarter and from 40 countries in the third quarter. Explanatory variables include labour market characteristics before the crisis (informality; employment in the sectors "accommodation and food services", "wholesale and retail trade" and "other services"; own-account and contributing family work; unemployment rate; and social protection coverage), GDP per capita, the government spending share, and the Government Response Stringency index. For the labour market estimates, a multitude of statistical relationships are identified and tested for their out-of-sample performance. The result of this procedure, called cross-validation, is then taken into account in selecting and weighting the statistical relationships to be used to predict labour market indicators for missing observations.

For aggregate employment, we identify the relationship between the percentage loss in hours worked and the percentage loss in employment as a function of the above-mentioned explanatory variables. This pass-through from hours to employment can be smaller or larger depending on a country's circumstances. We then estimate the excess employment loss of women with respect to men, and of young people with respect to adults. This excess employment loss, given the aggregate employment loss, uniquely determines the employment losses of the various demographic groups.

Employment loss must necessarily equal the increase in unemployment plus the increase in inactivity. We estimate the ratio of those two changes so that both can be determined jointly. For the female–male breakdown, we estimate the ratio of the change in female unemployment to that of male unemployment, and likewise for inactivity. Those estimates are then rebalanced so that the aggregate unemployment and inactivity changes are equal to the sum of the changes for women and men, but also so that the changes in male and female employment are equal to the respective changes in unemployment and inactivity. A similar approach is used for the youth–adult breakdown.

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32 See also Annex II in ILO, *Asia–Pacific Employment and Social Outlook 2020: Navigating the Crisis towards a Human-centred Future of Work*, 2020.

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30

Annex 3. Projections for 2021

The ILO has developed projection models to forecast hours worked and employment for the year 2021. In a first step, the loss of working hours relative to the fourth quarter of 2019 is projected. In a second step, those projections are used to project the employment relative to the "no pandemic" scenario.

In general, the projection of working hour losses for 2021 is based on a crisis recovery model, which projects the speed at which working-hour losses are recuperated. Three scenarios are used for these projections: baseline, optimistic and pessimistic.

Baseline scenario: Drawing on GDP growth estimates from the International Monetary Fund (IMF)'s *World Economic Outlook, October 2020*, this scenario assumes that the time required for workers to return to or find jobs (or degree of "scarring effects") remains low thanks to strong policy support. As regards the pandemic, it is assumed that strict lockdown measures are no longer a major constraining factor in 2021. However, this does not hold for many, mostly developed, countries in the first quarter of 2021, which have adopted a new set of strict lockdown measures. For those countries, we use the indirect nowcast model instead of the crisis recovery model for the first quarter of 2021, assuming that the Oxford COVID-19 Government Stringency Index and Google Mobility indicator of December 2020 will hold throughout this quarter. In contrast, we assume that the recovery model applies as of the first quarter of 2021 for those low- and lower-middle-income countries that did not tighten restrictions in December 2020.[33] Overall, in the baseline scenario, a strong recovery will begin in the third quarter of 2021, especially as vaccination campaigns speed up, but also thanks to reduced case numbers following lockdowns in the first quarter. The third quarter is assumed to be a "catch-up quarter" in those countries that tightened restrictions again in the first quarter. As many activities resume, the speed of recovery is assumed to reach similar levels to those registered by many countries in the third quarter of 2020. In the second and fourth quarters of 2021, the speed of recovery is based on historical country experience.

▶ **Table A5. Scenarios for projection of working-hour losses in 2021**

Assumption	Baseline	Pessimistic	Optimistic
Speed of adjustments in the labour market	Modest with low scarring effects	Slow with high scarring effects	Fast with no scarring effects
GDP growth	Mainly annual projections published by IMF in October 2020	Baseline, less 3 percentage points (pessimistic scenario in IMF, October 2020)	Baseline, plus 0.5 percentage points (optimistic scenario in IMF, October 2020)
2021 quarterly recovery Q1	Low or zero for upper-middle- and high-income countries; moderate for developing countries	Low or zero for upper-middle- and high-income countries; low for developing countries	High
Q2	Moderate	Low	Very high
Q3	Very high in upper-middle- and high-income countries; moderate in the others	Low	High
Q4	Moderate	Low	High

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33 Globally, the responsiveness – as recorded by the Oxford Coronavirus Government Response Tracker – to the average number of new cases over the past seven days has declined, compared with the periods before and since 1 November 2020, but this decline has been much larger for low- and lower-middle-income countries; it is smallest for high-income countries. This leads one to assume that low- and lower-middle-income countries remain on a recovery path even with the pandemic not fully under control.

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31

Optimistic scenario: This scenario assumes more positive developments in all major dimensions of the baseline scenario. Economic recovery is assumed to be stronger than in the baseline scenario by 0.5 percentage points (following the upside scenario in the IMF *World Economic Outlook, October 2020*), while no scarring effects make themselves felt (for example, thanks to proactive, well-resourced policy interventions). The existing restrictions will also be lifted very quickly across all countries, allowing recovery to begin already in the first quarter of 2021.

Pessimistic scenario: Economic growth is assumed to be much weaker than expected (3.0 percentage points less than in the baseline scenario, following the downside scenario in the IMF *World Economic Outlook, October 2020*). This is combined with stronger scarring effects, where those who lost jobs during the pandemic stay unemployed or inactive for longer. It is also assumed that the pandemic continues to constrain economic activity, although another wave of severe restrictions will not be imposed beyond the second quarter (as assumed in the baseline scenario).

The crisis recovery model for hours worked is specified as an error correction model that takes the form:

$$\Delta h_{(i,t)} = \beta_{(0,i)} + \beta_{(1,i)} \, gap_{(i,t-1)} + \beta_{(2,i)} \, gap^2_{(i,t-1)} + \beta_{(3)} \, \Delta GDP_{(i,t)} \qquad (1)$$

The gap is given by the difference of relative hours worked to the trend, $gap_{(i,t)} = h_{(i,t)} - trend_{(i,t)}$, where the evolution of the trend is determined by:

$$Trend_{(i,t)} = (trend_{(i,t-1)} + \gamma(h_{(i,t)} - trend_{(i,t-1)}))^{0.9} \qquad (2)$$

The variable of interest $\Delta h_{(i,t)}$ is the change in working hours relative to a long-run trend, which as of 2020 is assumed to be equal to the 2019 level. The gap refers to the working hours relative to that long-run trend, where this term enters in its first and second power. The crisis recovery mechanism in this model works through this gap, where the size of parameters $\beta_{(1,i)}$ and $\beta_{(2,i)}$ determines the speed with which working hours increase to close the gap when such a gap exists. Moreover, the larger that gap is, the larger the change in hours worked. The gap is a function of the trend (which has a steady state of 1, since working hours are specified relative to the trend). In order to capture scarring or hysteresis, the trend is modelled to react to the gap, but it also has a mean-reverting component. The scarring parameter *g* is set to 0.05 in the baseline scenario, and to twice that value, that is to 0.1, in the pessimistic scenario. Finally, GDP growth (in relation to trend growth) also forms part of the model, since higher economic activity is expected to accelerate growth in the number of hours worked. Both the long-term trend in hours worked and the trend GDP growth are estimated using Hodrick–Prescott filters with very high smoothing.

Equation (1) is estimated at the quarterly frequency for 61 countries with available data using multilevel mixed-effects methods, meaning that the distribution of the slope parameters for the gap is also estimated. This makes it possible to retrieve the country-specific random effects so that for every country we obtain specific deviations of the coefficients around the central coefficient estimated for the panel. In addition, we estimate the recovery speed that countries experienced in the course of 2020, using the nowcasting output. This heightened recovery speed parameter is directly applied during the second quarter of 2021 in the baseline and optimistic scenarios. The final recovery speed coefficient is the average of the three coefficients: the recovery speed coefficient in 2020, the average crisis recovery coefficient, and the country-specific crisis recovery coefficient for the 61 countries with available data.

The baseline scenario of quarterly GDP growth is taken from the Economist Intelligence Unit database as at 8 December 2020. For other countries without available quarterly growth projections, annual GDP growth projections from the IMF *World Economic Outlook, October 2020* are used. The baseline scenario in this edition of the *ILO Monitor* takes into account the continued depressing effect of the pandemic on the labour market, which slows the recovery to a greater extent than what one might expect from historical precedents. Specifically, we lower the coefficient β_1, which dictates how strongly hours worked react to the gap towards the long-run trend, to the bottom 15th percentile of the historically estimated distribution, as opposed to its mean.

In addition to the baseline scenario, two alternative scenarios are used in the modelling. The pessimistic scenario reflects the scenario analysis conducted for the IMF *World Economic Outlook, October 2020*, in which a prolonged pandemic lowers global GDP growth in 2021 by 3 percentage points. In addition, the third quarter will not experience a heightened recovery speed, the recovery coefficient is assumed to be even lower, and the scarring effect is stronger.

For the optimistic scenario, the underlying assumption is that workers return quickly to their activity despite the continuing output gap. Such a job-driven recovery will boost demand and create further employment. We model this by not adjusting downwards the coefficient β_1, which results in a higher recovery speed. In addition, we assume a positive GDP growth boom of 0.5 percentage points, as in the upside scenario of the IMF *World Economic Outlook, October 2020*.
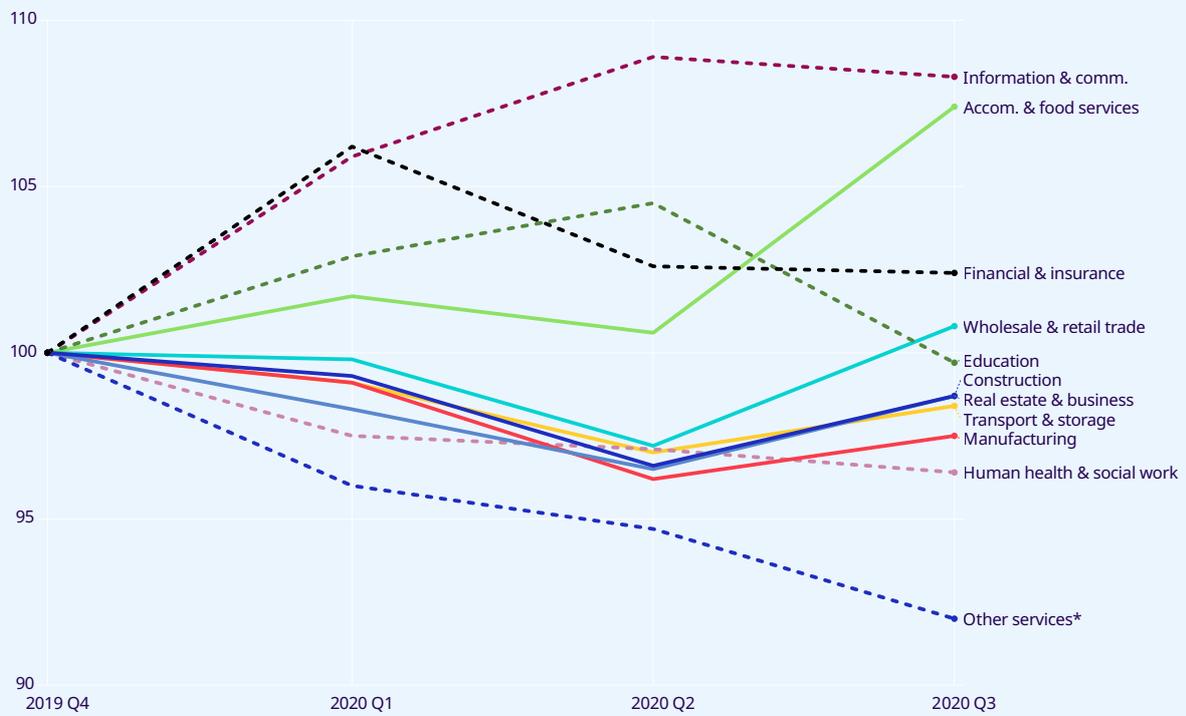
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32

Annex 4. Trends in sectoral employment

▶ **Figure A1. Trends in sectoral employment in selected countries** (index, Q4/2019 = 100.0)

Brazil

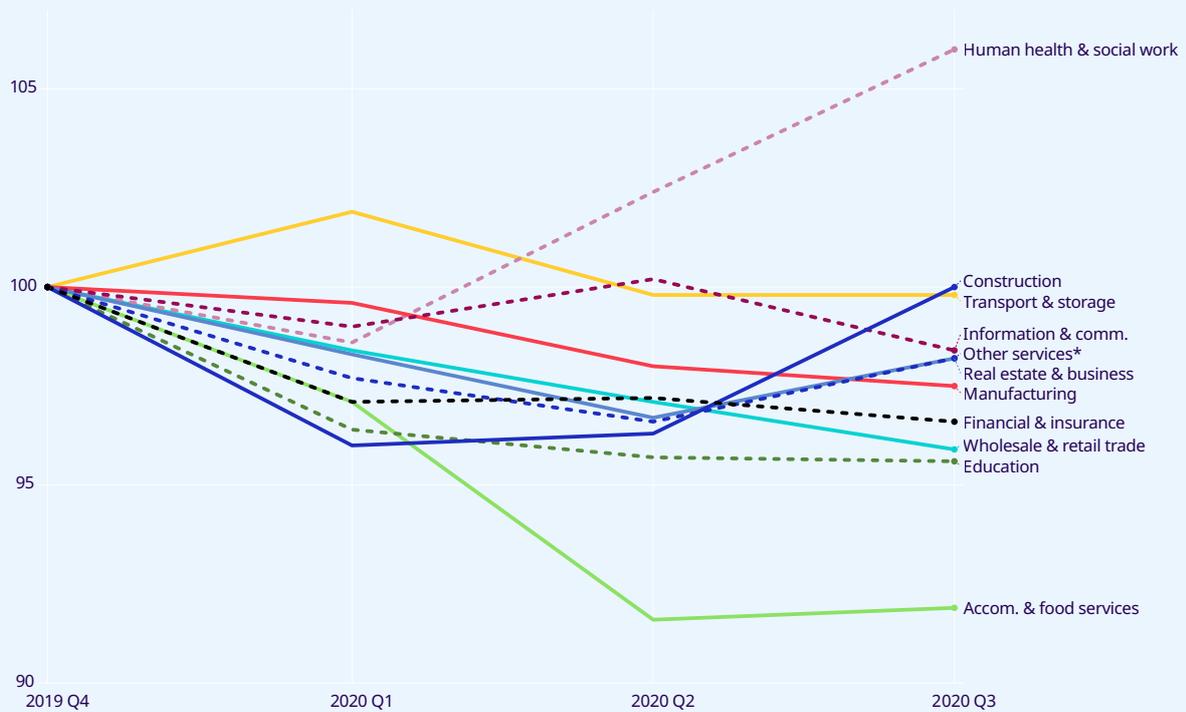**Costa Rica**
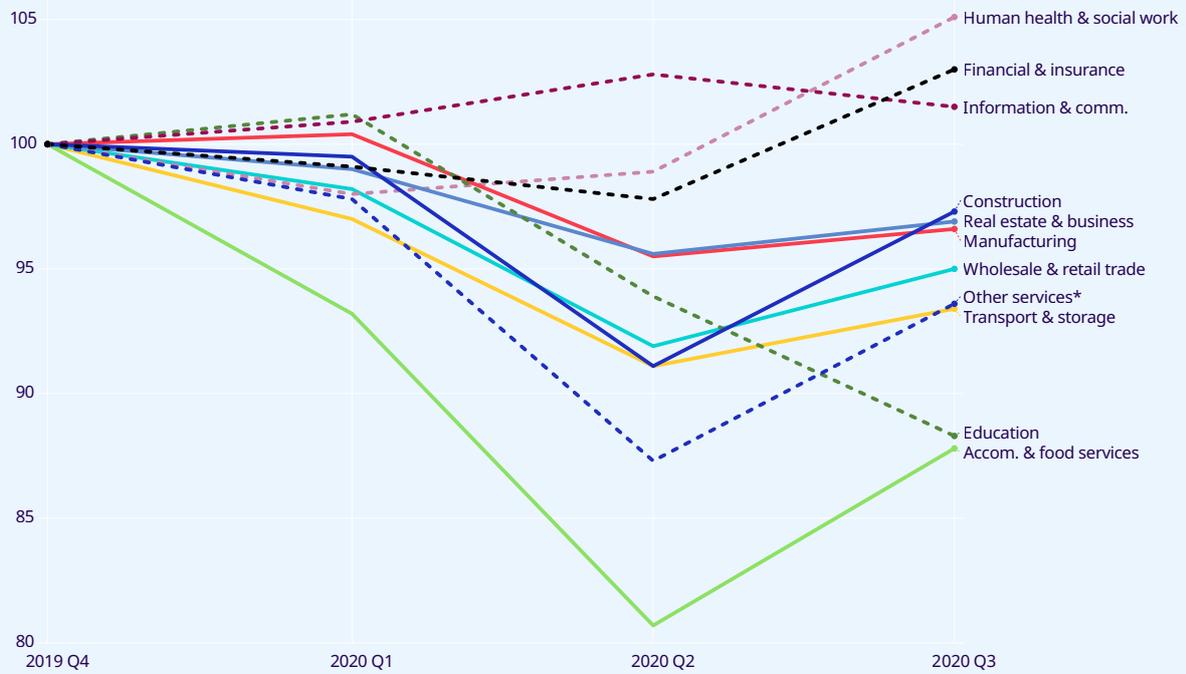
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33
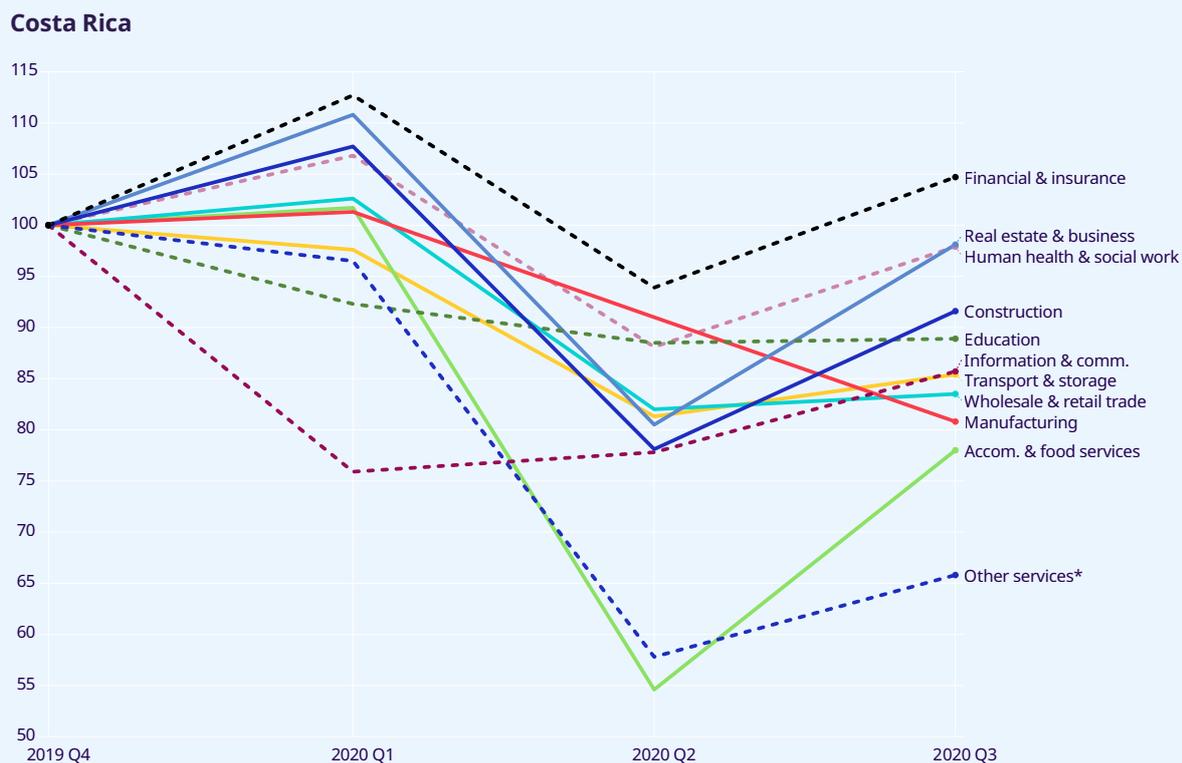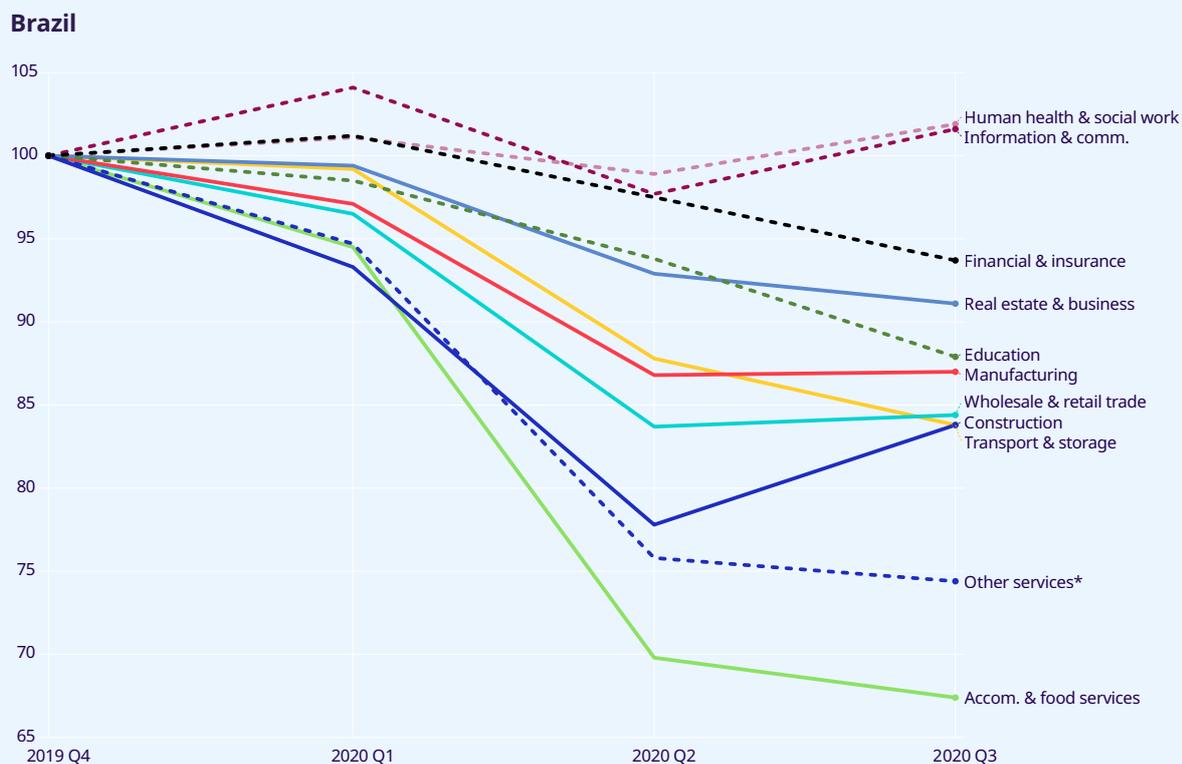
▶ **Figure A1. (cont'd)**

France

Republic of Korea

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34

▶ **Figure A1. (cont'd)**

Spain

Thailand
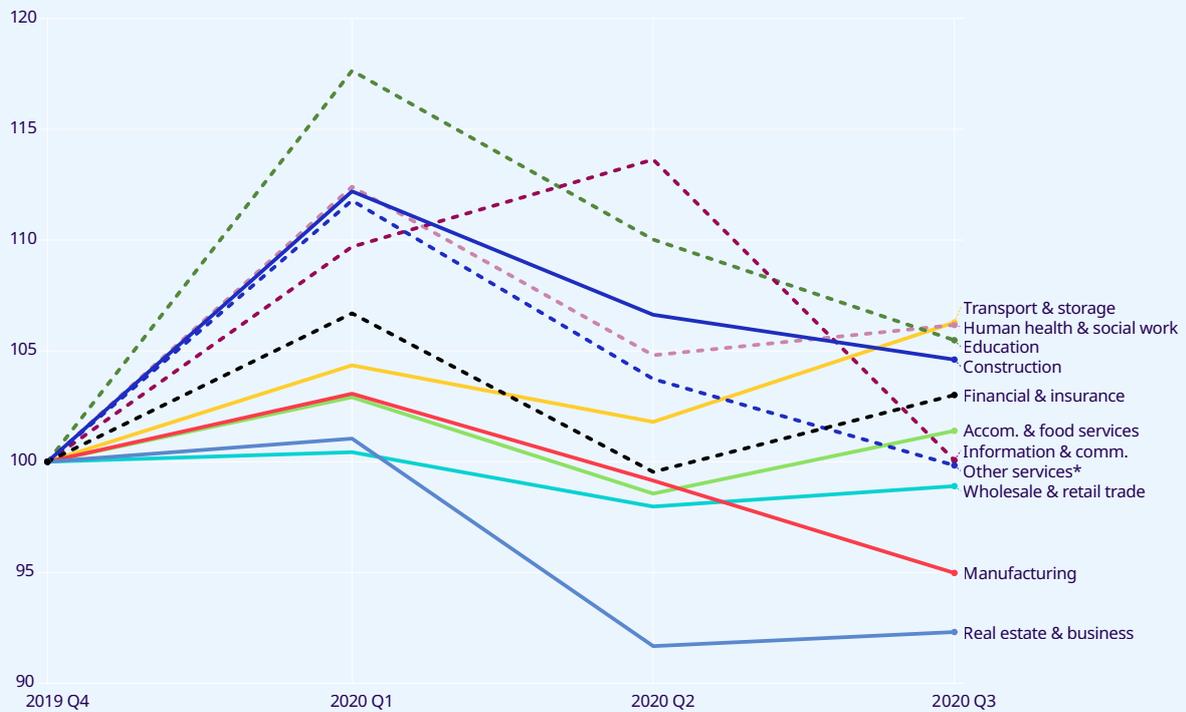
▶ **Figure A1. (cont'd)**

United Kingdom
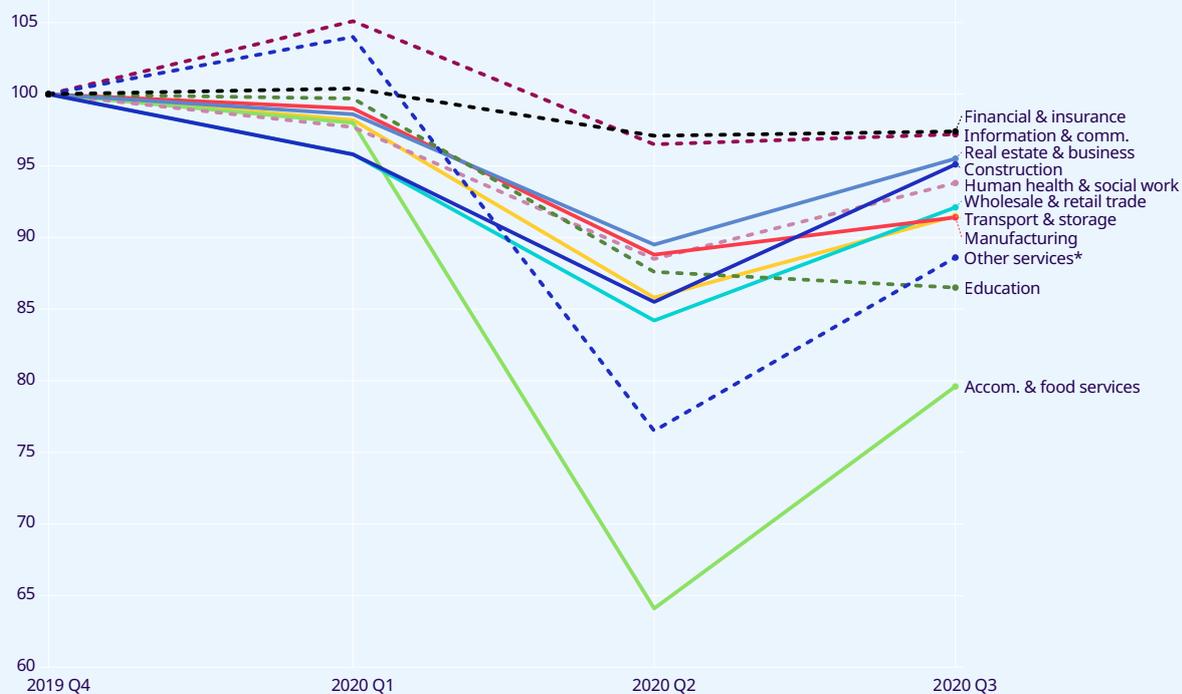
- Financial & insurance
- Information & comm.
- Real estate & business
- Education
- Human health & social work
- Transport & storage
- Wholesale & retail trade
- Other services*
- Construction
- Manufacturing
- Accom. & food services

United States

- Financial & insurance
- Information & comm.
- Real estate & business
- Construction
- Human health & social work
- Wholesale & retail trade
- Transport & storage
- Manufacturing
- Other services*
- Education
- Accom. & food services

* The "other services" sector includes employment in "arts, entertainment and recreation", "other service activities" and "activities of households as employers".

Note: Quarterly employment has been transformed into an index, whose value is set to 100.0 in the fourth quarter of 2019. The values for subsequent quarters show the percentage difference relative to this baseline.

Source: ILOSTAT database.