International Labour Organization

WORLD EMPLOYMENT SOCIAL OUTLOOK

TRENDS 2018

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TRENDS **2018**

International Labour Office • Geneva

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Executive summary

Global economic growth has rebounded and is expected to remain stable but low

Global economic growth increased to 3.6 per cent in 2017, after hitting a six-year low of 3.2 per cent in 2016. The recovery was broad based, driven by expansions in developing, emerging and developed countries alike. Future growth is likely to stay below 4 per cent, as economic activity normalizes in most major economies without significant stimulus and fixed investment remains at a moderate level.

Global unemployment remains elevated at more than 190 million

The latest developments in global unemployment are also mixed. According to the ILO's new estimation, based on improved data sets and methodologies, the global unemployment rate is expected to fall slightly to 5.5 per cent in 2018 (from 5.6 per cent in 2017), marking a turnaround after three years of rising unemployment rates. However, with a growing number of people entering the labour market to seek employment, the total number of unemployed is expected to remain stable in 2018, above 192 million. In 2019, the global unemployment rate is expected to remain essentially unchanged, whereas the number of unemployed is projected to grow by 1.3 million.

Vulnerable employment is on the rise

With these improvements in employment projected to be modest, the number of workers in vulnerable forms of employment (own-account workers and contributing family workers) is likely to increase in the years to come. Globally, the significant progress achieved in the past in reducing vulnerable employment has essentially stalled since 2012. In 2017, around 42 per cent of workers (or 1.4 billion) worldwide are estimated to be in vulnerable forms of employment, while this share is expected to remain particularly high in developing and emerging countries, at above 76 per cent and 46 per cent, respectively. Worryingly, the current projection suggests that the trend is set to reverse, with the number of people in vulnerable employment projected to increase by 17 million per year in 2018 and 2019.

The pace of working poverty reduction is slowing

Similarly, the global labour market has seen only weak progress in the area of working poverty. In 2017, extreme working poverty remained widespread, with more than 300 million workers in emerging and developing countries having a per capita household income or consumption of less than US$1.90 (PPP) per day. Overall, progress in reducing working poverty is too slow to keep pace with the growing labour force in developing countries, where the number of people in extreme working poverty is expected to exceed 114 million in 2018, or 40 per cent of all employed people.

Emerging countries, on the other hand, achieved significant progress in reducing extreme working poverty, which is expected to affect less than 8 per cent (around 190 million) of workers there in 2017. The incidence of extreme poverty should continue to fall, translating into a reduction in the number of extreme working poor by 10 million per year in 2018 and 2019. Nevertheless, moderate working poverty, in which workers live on an income of between US$1.90 and US$3.10 per day in PPP, remains widespread, affecting 430 million workers in emerging and developing countries in 2017.

Significant variations in employment outcomes continue to exist between regions and countries

The world continues to experience diverse trends in employment outcomes. Developed countries are expected to enter their sixth consecutive year of decreasing unemployment rates, falling to 5.5 per cent in 2018, the lowest rate since 2007. Yet many countries continue to report high rates of labour underutilization, with large shares of discouraged workers and growing incidence of involuntary part-time employment.

By contrast, emerging countries have experienced a significant increase in unemployment rates between 2014 and 2017, driven by major economic downturns, in part due to the commodity price slump in many large economies, such as Brazil and the Russian Federation. The year 2018 marks a turning point, as the unemployment rate is expected to fall to 5.5 per cent (from 5.6 per cent in 2017), which would translate into an increase in the number of unemployed in emerging countries of around 0.4 million in 2018 and 1.2 million in 2019.

Unemployment in developing countries is expected to increase by half a million per year in both 2018 and 2019, with the unemployment rate remaining at around 5.3 per cent. For many developing and emerging countries, however, persistent poor-quality employment and working poverty pose the main challenges.

Inequalities in labour market outcomes persist

Underlying these aggregate labour market and social trends are disparities across a number of demographic groups. Gender disparities are of particular concern. On average, women are less likely to participate in the labour market, facing a global gender gap in participation of over 26 percentage points, and are less likely to find a job when they do participate. These gaps are particularly wide in Northern Africa and the Arab States, where women are twice as likely to be unemployed as men. Once in employment, women face segregation in terms of the sector, occupation and type of employment relationship, resulting in restricted access to quality employment. For instance, 82 per cent of women in developing countries are in vulnerable forms of employment in 2017, compared to 72 per cent of men.

The lack of employment opportunities for youth (i.e. those under 25 years of age) presents another major global challenge. Young people are much less likely to be employed than adults, with the global youth unemployment rate standing at 13 per cent, or three times higher than the adult rate of 4.3 per cent. The challenge is particularly acute in Northern Africa, where almost 30 per cent of young people in the labour market are without a job. Importantly, gender inequalities are already established among young workers, rendering future progress in reducing gender gaps even more difficult.

Looking ahead, the projected structural shifts to the service sector could create complex pressures on job quality

Internal and external forces, such as technological progress, capital accumulation, globalization, demographics and government policies, are expected to continue to spur the reallocation of employment across sectors of production. Across all income groups, an ever-increasing number of workers are projected to be employed in the service sector, while the employment share in agriculture is set to continue its long-term downward trend. Furthermore, the share of manufacturing employment is expected to continue its decline in upper middle-income and developed countries, and to grow only marginally in lower middle-income ones. This confirms the ongoing trend of “premature deindustrialization”, whereby lower-income countries are seeing declining shares of industrial employment at earlier stages of development compared to developed countries.

This phenomenon could render the positive impacts of structural transformation in reducing informal and vulnerable employment smaller than commonly expected, given that most workers moving out of agriculture are anticipated to find employment in a range of market services, where the incidence of poor working conditions is higher than in industry. In developed countries, the projected increase of services employment could raise the incidence of part-time employment and time-related underemployment. Consequently, the anticipated path of structural transformation appears to have limited

potential to lead to widespread improvements in working conditions. Thus, strong policy efforts to foster formalization and boost job quality and productivity in the service sector represent an important precondition for ensuring the decent work outcomes of structural transformation.

An ageing population will add further pressure to future labour market challenges

As a result of rising life expectancy and declining birth rates, global population growth has considerably decelerated and this trajectory is expected to continue over the next few decades. One immediate implication of this slowdown is that growth of the global labour force will not be sufficient to compensate for the rapidly expanding pool of retirees, putting pressure on both the pension system and the labour market as a whole. In developed countries, where population ageing is considerably faster, it is estimated that, by 2030, there will be close to five persons aged 65 and over for every ten persons in the labour force, up from 3.5 in 2017.

Meanwhile, population ageing will inevitably lead to an increase in the average age of those in the labour force, challenging workers' ability to keep up with the pace of innovation and structural changes in the labour market. Globally, the average age of the labour force is expected to rise from nearly 40 in 2017 to 41 in 2030, growing considerably faster in Europe and Eastern Asia, notably China.

Taken together, these trends pose several challenges, including keeping retirees out of poverty, promoting decent work outcomes for an increasingly ageing labour force and helping older workers adapt to changes in the world of work. Arguably, old-age poverty is inherently tied to existing labour market inequalities, as workers with inferior working conditions and incomes have less access and capacity to contribute to a retirement savings scheme. Therefore, ensuring adequate labour market opportunities for all, while also improving labour market outcomes, constitutes an important cornerstone to the goal of alleviating old-age poverty. In this regard, fostering the employability of workers through life-long learning is key to expanding their employment opportunities, also at an older age. Targeted actions are also needed to encourage older workers' participation in training and skills-updating schemes in order to help lower the risk of labour market detachment and early retirement which would put added pressure on pension systems.

1 Global employment and social trends

Long-term global economic outlook remains moderately positive despite stronger-than-expected growth in 2017

Global economic growth increased by 3.6 per cent in 2017, compared with 3.2 per cent in 2016 (IMF, 2017a). This represents an upward revision of 0.2 percentage points compared to the outlook a year ago, making 2017 the first year since 2010 in which actual growth outperformed projected growth.

The modest upturn in global growth was broad based, driven by expansions in developing, emerging and developed countries alike. The corresponding increase in emerging countries to 4.9 per cent in 2017 was largely driven by the end of major contractions in countries such as Brazil and the Russian Federation. Among developed countries, growth is projected to increase from 1.6 per cent in 2016 to 2.1 per cent in 2017. Looking ahead, the anticipated combination of relatively stable resource prices, a normalization of growth in most major economies and a stabilization of fixed investment at a moderate level suggests that there is unlikely to be any drag or stimulus effect sufficient to substantially alter projected global growth. Consequently, the medium-term growth projections remain at the modest level of 3.7 per cent for 2018 and beyond (see box 1.1).

Box 1.1

Slow growth: The new normal?

The five-year global economic growth forecast published in the various editions of the IMF's World Economic Outlook database provides an indication of the estimated potential global growth rate. The fact that this forecast has decreased from 4.8 per cent in the October 2011 edition to a modest 3.8 per cent in the current, October 2017 edition shows that the estimated medium-term growth potential has declined dramatically, by 1 percentage point, for countries at all income levels. Over a five-year period, this equates to a difference of almost 5 per cent in the average income level.

Low fixed investment growth explains at least part of the slowdown in economic growth. This is causing a shortage in aggregate demand and future factors of production. However, it is important to note that investment remains subdued in most countries despite favourable environments, such as record stock market valuations, accommodative monetary policy in many developed countries and large corporate profits. Income and wealth inequality also play a role in suppressing aggregate demand, as richer households tend to consume a smaller share of their income.

A further factor contributing to low output growth stems from low productivity growth, which is rooted partially in weak investment growth, but also reflects the decelerating pace of innovation and trade integration. In addition, the expansion of employment in services sectors around the world (see Chapter 3) contributes to the slowdown in productivity growth, as productivity gains in these sectors are harder to achieve, and to measure.

Source: IMF, 2011 and 2017a; United Nations, 2017a.

Global labour market outlook remains weak, with progress in reducing vulnerable employment and working poverty slowing down

The weak growth potential is weighing heavily on the global economy's capacity to reduce decent work deficits in the medium term, notably with regard to quantity and quality of jobs and the way they are distributed (e.g. inclusiveness of growth and labour market opportunities, see box 1.2). In particular, the following trends have been observed:

Global unemployment is stabilizing after a rise in 2016: The ILO's new estimation, based on improved data sets and methodologies (see box 1.3), shows that the global unemployment rate stood at 5.6 per cent in 2017, corresponding to 192.7 million unemployed persons (table 1.1). This represents an increase of 2.6 million compared with 2016. For 2018, the global unemployment rate is expected to fall by 0.1 percentage points, keeping the number of unemployed essentially unchanged despite the presence of a growing labour force. This is due to the strong performance of developed countries' labour markets, where the unemployment rate is projected to fall by an additional 0.2 percentage points to 5.5 per cent – a rate below pre-crisis levels. In contrast, in emerging and developing countries, employment growth is projected to fall short of labour force growth, raising the unemployment headcount by 0.9 million in 2018. The unemployment rate is expected to fall slightly, by 0.1 percentage points, in emerging countries and to remain stable in developing countries. The positive impetus from emerging countries recovering from the downturn is expected to level off in 2019, causing the unemployment rate to remain at 5.5 per cent and the global number of unemployed to rise by 1.3 million.

Progress in reducing vulnerable forms of employment, i.e. own-account work and contributing family work, has stalled: Workers in vulnerable forms of employment are typically subject to high levels of precariousness, in that they are more likely to be informally employed, have fewer chances to engage in social dialogue and are less likely to benefit from job security, regular incomes and access to social protection than their wage and salaried counterparts (ILO, 2017e). Worryingly, the significant progress achieved in the past in reducing vulnerable employment has essentially stalled since 2012, with the rate remaining above 42 per cent. In 2017, almost 1.4 billion workers are estimated to be in vulnerable forms of employment, and every year an additional 17 million join them.

Box 1.2

Reducing decent work deficits in times of low growth

The slowdown in global long-run growth has important consequences for decent work conditions and for achieving the Sustainable Development Goals (SDGs) defined in the 2030 Agenda for Sustainable Development. First, lower growth means that the average standard of living rises at a slower pace, which negatively affects the potential of an economy to lift people out of poverty (SDG1). Second, there is a clear inverse relationship between the level of development and the incidence of vulnerable employment, so that slower growth implies that vulnerable employment will be more persistent. Third, reductions in economic growth weaken the potential for real wage growth. Finally, a slowdown in growth lowers net job creation, making it harder for people to find employment (SDG8).

To combat widespread decent work deficits, it is important to increase the effectiveness of growth. First, growth needs to be more inclusive, so that underprivileged groups can benefit broadly from the overall improvements in standards of living and working conditions. Second, growth needs to be sufficiently employment intensive to create more job opportunities for a larger workforce. The achievement of these objectives may, in turn, accelerate growth, thereby creating a virtuous cycle of growth and decent work.

Box 1.3

The revision of global unemployment

Global estimates of the number of unemployed people have been revised downward with respect to those presented in the *WESO Trends 2017* report (figure 1.1). This revision stems from a number of improvements in data and estimation methodologies rather than reflecting a better-than-expected global labour market outlook. In particular, three types of revisions have been made, as detailed below.

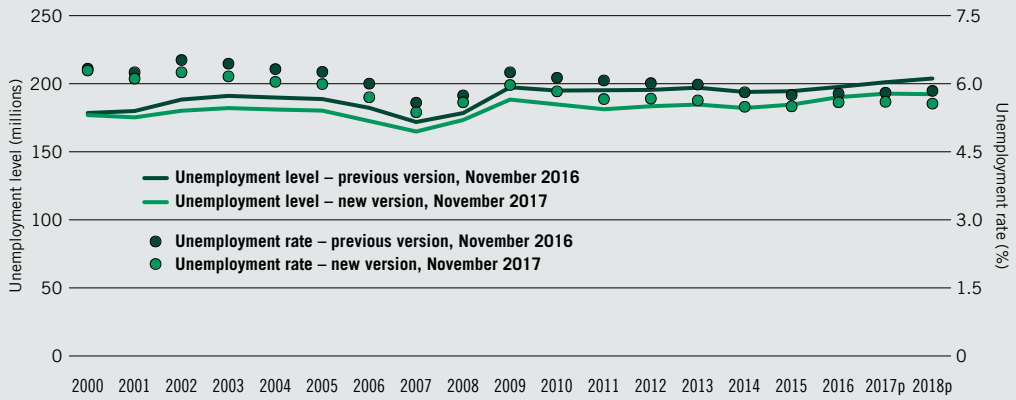
(1) *Revisions to historical unemployment rates*: In order to comply with international standards of labour statistics[1] and in an effort to improve the accuracy and comparability of indicators across countries and over time, the ILO makes continuous efforts to improve its statistical databases. These measures encompass the inclusion of additional data points (e.g. new or updated data for countries), removal of inconsistent data entries and revisions stemming from the application of the internationally agreed criteria in the computation of unemployment rates in countries where nation-specific, relaxed definitions of unemployment were previously reported. These changes account for 85 per cent of the downward revision to global unemployment figures.

(2) *Revision of labour force figures:* These revisions are due to the update of ILO's Labour Force Estimates and Projections (LFEP) database, which includes new population figures (United Nations, 2017b) and new labour force participation data as well as reflecting significant improvements in estimation methods. Such revision implies changes to the headcount of unemployed, even when historical unemployment rates remain unchanged.

(3) *Forecast revisions:* These are changes to the forecast unemployment rates due to the inclusion of latest data entries and economic developments (Appendix C contains additional details regarding the sources of the revision to the global unemployment headcount).

Figure 1.1

Comparison of global unemployment rates and levels, ILO Trends Econometric Models, November 2016 and November 2017



Note: Figures for 2016 based on ILO Trends Econometric Models, November 2016, are preliminary estimates, while figures for 2017–18 are projections. Figures for 2017 based on ILO Trends Econometric Models, November 2017, are preliminary estimates, while figures for 2018 are projections.

Source: ILO calculations based on ILO Trends Econometric Models, November 2016 and November 2017.

[1] *According to Resolution I adopted by the 19th International Conference of Labour Statisticians, a person is unemployed if three criteria are applicable within the reference period: (i) the person is not in employment, (ii) the person is seeking work, and (iii) the person is available to take up work.*

Table 1.1

Unemployment, vulnerable employment and working poverty trends and projections, 2007–19

Country/region	Unemployment rate 2007–19 (percentages)				Unemployment 2017–19 (millions)		
	2007–16	2017	2018	2019	2017	2018	2019
WORLD		**5.6**	**5.5**	**5.5**	**192.7**	**192.3**	**193.6**
Developed countries		5.7	5.5	5.4	34.1	32.8	32.4
Emerging countries		5.6	5.5	5.5	143.0	143.4	144.6
Developing countries		5.3	5.3	5.3	15.6	16.1	16.6
	Vulnerable employment rate 2007–19 (percentages)				Vulnerable employment 2017–19 (millions)		
	2007–16	2017	2018	2019	2017	2018	2019
WORLD		**42.5**	**42.6**	**42.7**	**1391.3**	**1409.0**	**1426.4**
Developed countries		10.0	9.9	9.9	56.7	56.5	56.3
Emerging countries		46.2	46.2	46.3	1122.8	1134.0	1144.8
Developing countries		76.5	76.4	76.4	211.8	218.5	225.3
	Extreme working poverty rate 2007–19 (percentages)				Extreme working poverty 2017–19 (millions)		
	2007–16	2017	2018	2019	2017	2018	2019
Total emerging and developing countries		**11.2**	**10.7**	**10.2**	**300.9**	**290.8**	**281.2**
Emerging countries		7.7	7.2	6.7	186.8	176.2	166.4
Developing countries		41.2	40.1	38.9	114.1	114.6	114.9
	Moderate working poverty rate 2007–19 (percentages)				Moderate working poverty 2017–19 (millions)		
	2007–16	2017	2018	2019	2017	2018	2019
Total emerging and developing countries		**16.0**	**15.5**	**15.1**	**430.2**	**421.8**	**414.0**
Emerging countries		14.7	14.1	13.6	357.5	346.9	336.7
Developing countries		26.2	26.2	26.2	72.7	74.9	77.3

Note: Throughout this report, figures for 2017 are preliminary estimates and figures for 2018 and 2019 are projections. Moderate and extreme working poverty rates refer to the shares of workers living in households with income or consumption per capita between US$1.90 and US$3.10 per day, in purchasing power parity (PPP), and less than US$1.90 per day (PPP), respectively. For a detailed list of regional, country and income groups, see Appendix A.

Source: ILO Trends Econometric Models, November 2017.

Working poverty continues to fall, but at a slower rate: The share of the working population living in extreme poverty (i.e. living in households in which per capita consumption is less than US$1.90 per day in purchasing power parity (PPP) terms),[1] continues its long-term decline, reaching 11.2 per cent in developing and emerging countries in 2017. Despite significant progress in the past, in 2017 there are still around 300 million workers living in extreme poverty in emerging and developing countries, a figure that rises to more than 700 million when those classified as moderately poor (i.e. living on less than US$3.10 per day in PPP terms) are included. Worryingly, the rate of progress has slowed down, and in developing countries progress is failing to keep pace with the growing labour force. Consequently, the number of extreme working poor in the developing world is projected to remain above 100 million, meaning that more than one in three workers in developing countries are still expected to be living in extreme poverty in the years to come. This will make it difficult to achieve the objective of eradicating poverty set out in the SDGs, specifically SDG 1 (see box 1.2).

Following the deterioration of labour market conditions in previous years, the stabilization of global unemployment and the upturn in economic growth appear to have contributed to mitigating social unrest in many regions of the world in 2017 (box 1.4). This marks a positive development in comparison to 2016, when social unrest was on the rise in the majority of regions (ILO, 2017a).

1. Working poverty figures are given in purchasing power parity (PPP) terms throughout this report.

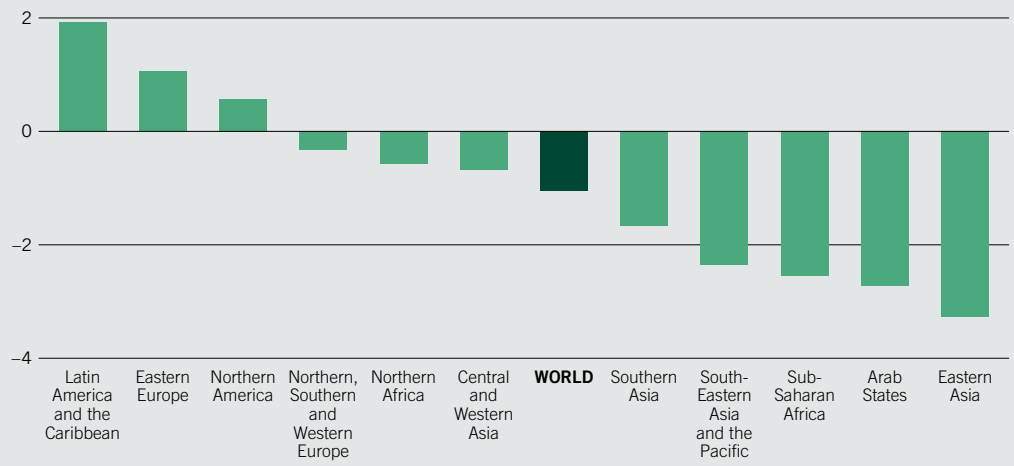
Box 1.4

Latest trends in the social unrest index

While labour market challenges are far from being the only driver of social unrest (others include personal freedom, living standards and democratic processes), the improving economic situation in most regions of the world is reflected in the decreased expression of social unrest or discontent. Indeed, based on the ILO's social unrest index, which measures expressed disapproval of the socio-economic and political situation in countries, the average global social unrest score decreased by 1 point between 2016 and 2017, to 22.0 points (figure 1.2). Nevertheless, three regions experienced an increase in the social unrest index, most notably Latin America and the Caribbean, which was the region most severely affected by poor labour market performance in 2017. In contrast, the Asian regions, sub-Saharan Africa and the Arab States saw relatively strong reductions in the social unrest index. Northern Africa, despite the small improvement, is still exposed to a heightened risk of social unrest, with the current index score being more than 4 points above the long-term average.

Figure 1.2

Change in the social unrest index, 2016–17



Note: The chart shows the change in the weighted average of the social unrest index from 2016 to 2017 by ILO region. The social unrest index is based on the share of protest events in total events, using Global Database of Events, Language, and Tone (GDELT) categories, and ranges from 0 (low) to 100 (high). For detailed information regarding the index and its calculation, please see Appendix B.

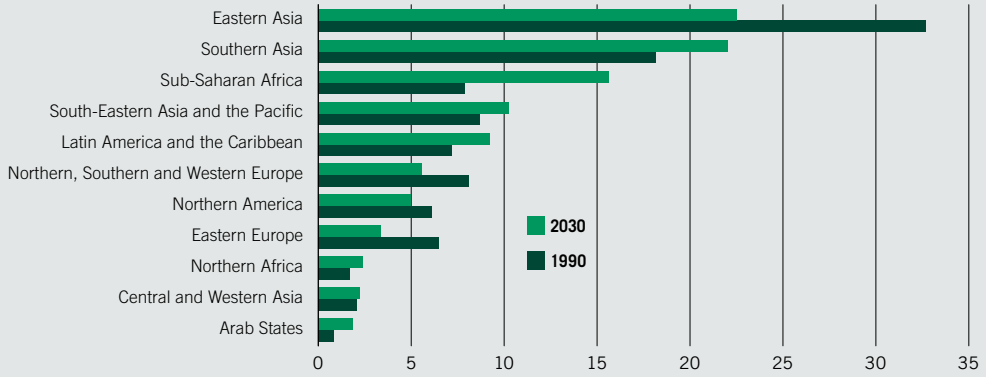
Source: ILO calculations based on GDELT, October 2017.

Fast labour force growth in regions with poor working conditions jeopardizes global progress

In the medium term, important geographic shifts in the distribution of the global labour force will occur, as labour force growth rates vary considerably across regions. For instance, sub-Saharan Africa and Southern Asia will be home to 38 per cent of the global labour force by 2030, up from 26 per cent in 1990 (figure 1.3). Between 2017 and 2030, the labour supply (for all ages) will increase by 198 million in sub-Saharan Africa and 166 million in Southern Asia. As these two regions are home to the majority of the world's working poor and vulnerable workers (Chapter 2), the global average share of workers affected by poor working conditions may rise, unless significant progress is made in improving job quality around the globe, and especially in these regions.

Figure 1.3

Share of global labour force by region, 1990 and 2030 (percentages)



Source: ILO Trends Econometric Models, November 2017.

Unequal labour market opportunities for women persist

Underlying these aggregate labour market and social trends are disparities, which are often wide, across a number of demographic groups (ILO, 2016a, 2017b and 2017c). Of notable concern are gender disparities in labour market opportunities, which cut across and persist in all dimensions of the labour market, and which are rooted in the complex interplay of gender roles, socio-economic constraints and personal preferences, such as unequal care responsibilities and discrimination (ILO, 2017c).

In many instances, participation rates among women remain well below those for men. This is particularly notable in Northern Africa, Arab States and Southern Asia, where the gender gap in participation rates stands at over 50 percentage points, which is nearly double the global average. Such wide gaps in participation are driven by extremely low rates of female participation, which is lowest in global terms in the Arab States (at 18.9 per cent), Northern Africa (21.9 per cent) and Southern Asia (27.6 per cent). These low rates are attributed to multiple socio-economic and socio-cultural factors, which limit women's participation in the labour market (ibid.).

Even among those who do participate, women face significant barriers to employment, experiencing unemployment rates that are more than double those of men in regions such as the Arab States and Northern Africa. Furthermore, significant sectoral and occupational segregation means that the jobs to which women have access differ from those available to men. Consequently, women can often access only inferior quality jobs, with the rates of vulnerable employment, especially as contributing family workers, being consistently higher for women than for men across Africa, Asia and the Pacific and the Arab States. Finally, the prevalence of labour market segregation, in terms of the type and quality of jobs, contributes to a significant gender pay gap (ILO, 2016b). These gender gap trends will be discussed further and elaborated upon in the ILO's forthcoming *World Employment and Social Outlook: Trends for women* in March 2018.

As a result, women are often less eligible for social protection coverage (including unemployment benefits, pensions and maternity protection) due to their lower rates of labour force participation, higher levels of unemployment and greater likelihood of being in vulnerable forms of employment. These factors, coupled with the fact that women usually receive lower levels of remuneration, raise their risk of poverty.

Moreover, even where there has been progress for women, it has not always kept pace with that of their male counterparts. All this underlines the need for increased efforts to improve labour market opportunities for women. Recent ILO reports (ILO, 2016a and 2017c) propose comprehensive policies that aim to close the persistent gender gaps in the labour market and make headway towards achieving the SDGs. Principally, reducing the inequalities in labour market opportunities will help to realize the achievement not only of the SDG on gender equality (SDG 5), but also of those on poverty and inequality reduction (SDG 1) and economic growth and decent work (SDG 8).

2 Employment and social trends by region

Given the heterogeneity of labour market and social outcomes as depicted in Chapter 1, this chapter will assess, both across and within regions, (i) recent economic and labour market developments, and (ii) short-term employment and social prospects (see Appendix A for a list of ILO regional, country and income groupings).

Africa

The economic outlook for Africa is set to improve, with growth projected to reach 3.7 per cent in 2017, up from 2.1 per cent in 2016. This anticipated improvement is highly dependent on a recovery in commodity prices, which demonstrates the diverging growth pathways for commodity-exporting and non-exporting countries in the region. As a result, the economies of both Northern Africa and sub-Saharan Africa face the challenge of ensuring inclusive growth and building resilience to commodity price volatility against a backdrop of unpredictable climate change and geopolitical insecurity. Consequently, sustainable economic diversification, fiscal sustainability, infrastructure development and inclusive growth are top priorities to achieve gains in decent work and poverty reduction. While growth is anticipated to gradually recover and increase broadly in the region, it will still remain below the level needed to tackle Africa's current social and labour market challenges effectively.

Related to the sluggish improvements in growth, the unemployment rate for the entire continent is expected to remain unchanged from the previous year, at 7.9 per cent (table 2.1). A slight increase in the number of unemployed is expected, primarily in sub-Saharan Africa, driven by a strongly growing labour force in a climate of limited improvement in the labour market. The region has the highest rate of vulnerable employment globally, remaining at around 66 per cent. This suggests that, in 2017, 290 million African workers are estimated to be in vulnerable forms of employment – a figure that is expected to go up by nearly 9 million in 2018, with the largest increase in sub-Saharan Africa.

Working poverty on the continent is improving in terms of extreme working poverty rates, as these are projected to continue to decline to around 31 per cent in 2018. The rate of moderate working poverty, however, is expected to remain stable at around 23 per cent. Overall, almost 250 million workers in Africa live in extreme or moderate poverty – a number that is expected to rise by an average of 4 million per year amid continued rapid growth in the working-age population and insufficient improvements in working poverty rates.

Table 2.1

Unemployment, vulnerable employment and working poverty trends and projections, Africa, 2007–19

Country/region	Unemployment rate, 2007–19 (percentages)				Unemployment, 2017–19 (millions)		
	2007–16	2017	2018	2019	2017	2018	2019
Africa		**7.9**	**7.9**	**7.9**	**37.8**	**38.9**	**40.1**
Northern Africa		11.7	11.5	11.4	8.7	8.7	8.7
Sub-Saharan Africa		7.2	7.2	7.3	29.1	30.2	31.3
South Africa		27.7	28.5	29.2	6.1	6.4	6.6
	Vulnerable employment rate, 2007–19 (percentages)				Vulnerable employment, 2017–19 (millions)		
	2007–16	2017	2018	2019	2017	2018	2019
Africa		**65.9**	**66.0**	**66.1**	**290.6**	**299.5**	**308.8**
Northern Africa		30.4	30.4	30.3	19.8	20.2	20.6
Sub-Saharan Africa		72.1	72.1	72.2	270.7	279.3	288.2
	Extreme working poverty rate, 2007–19 (percentages)				Extreme working poverty, 2017–19 (millions)		
	2007–16	2017	2018	2019	2017	2018	2019
Africa		**31.9**	**31.2**	**30.4**	**140.6**	**141.5**	**141.9**
Northern Africa		5.0	4.8	4.7	3.2	3.2	3.2
Sub-Saharan Africa		36.6	35.7	34.7	137.3	138.3	138.7
	Moderate working poverty rate, 2007–19 (percentages)				Moderate working poverty, 2017–19 (millions)		
	2007–16	2017	2018	2019	2017	2018	2019
Africa		**23.6**	**23.6**	**23.6**	**104.1**	**107.1**	**110.2**
Northern Africa		20.1	19.8	19.4	13.1	13.2	13.2
Sub-Saharan Africa		24.2	24.2	24.3	91.0	93.9	97.0

Note: The vulnerable employment rate is defined as the share of own-account workers and contributing family workers in total employment. Moderate and extreme working poverty rates refer to the shares of workers living in households with income or consumption per capita between US$1.90 and US$3.10 per day (PPP) and less than US$1.90 per day (PPP), respectively.

Source: ILO Trends Econometric Models, November 2017; ILOSTAT.

NORTHERN AFRICA

Northern African gross domestic product (GDP) is expected to have grown by 5.4 per cent in 2017, marking a recovery from the previous year's growth of 3.2 per cent. This recovery is most evident among the oil-importing countries, supported by stronger domestic demand and exports. Countries such as Egypt and Morocco experienced an increase in foreign direct investment while seeing an upturn in tourism. Growth in Tunisia is also expected to pick up due to higher exports, linked to stronger growth in Europe. Additionally, increased private investment and trade due to the recent lifting of US economic sanctions on Sudan are expected to support growth in the country. Overall, the oil-importing countries – Egypt, Morocco, Tunisia and Sudan – fared better in terms of growth recovery than oil-exporting countries, such as Algeria and Libya. Oil-exporting countries continue to face the challenge of adjusting to lower oil prices, albeit to a lesser extent this year than the last, which is inhibiting growth and contributing to significant fiscal and external deficits. However, the proximity of countries rife with geopolitical tensions and conflicts represents an ever-present destabilizing threat to the region's security and future economic prospects.

Elevated unemployment levels reflect large disparities in the labour market

The unemployment rate in Northern Africa is expected to decline from 11.7 per cent in 2017 to 11.5 per cent in 2018. The number of unemployed, however, remains steady at 8.7 million in a context of strong growth in the working-age population and labour force. Globally, Northern Africa features the highest unemployment rate, driven by very high rates among youth and women. In fact, youth make up more than 34 per cent of the total unemployed population while representing only about 14.6 per cent of the labour force. This makes Northern Africa's youth unemployment rate the highest in the world. Moreover, the unemployment rate for women, at 19.8 per cent, is more than twice that of men at 9.3 per cent. In fact, improvements in the gender gap have been reversed over the course of the past decade and the gap is expected to widen throughout the period 2018–21 (ILO, 2017c). There are clearly deep structural barriers facing both youth and women, which in many instances are linked to gaps in education and inequality of opportunities. This situation is reflected in the NEET ("not in education, employment or training") rate for youth, which stands at 26.1 per cent in Northern Africa, the second-highest globally and with a larger than majority share of women (ILO, 2017b). A high NEET rate among young women suggests that their participation in the labour market is constrained by their early engagement in unpaid household work and the strong institutional barriers they face (ILO, 2017c). Persistently high levels of unemployment, rooted in wide labour market gaps in the region, underscore the urgent need to make targeted efforts to tackle these gaps, starting with education and skills training and removing barriers, such as discrimination. Successfully and promptly targeting these gaps will not only benefit the livelihoods of women and the prospects of future generations, but also simultaneously generate inclusive growth and higher productivity for the region. This need will only become increasingly more pressing as the working-age population of the region is expected to grow.

Weak employment conditions are faced by those who are employed

Around 30 per cent of the employed are in vulnerable employment. This represents a slight decrease from the previous year but concerns a growing number of workers and is expected to surpass 20 million workers in 2018. The situation is even less encouraging for women, who are 12 percentage points more likely to be in vulnerable employment (40 per cent), especially as contributing family workers, than men (24.5 per cent).

Moreover, working poverty rates in Northern Africa remain high, with more than one in four workers living in extreme or moderate working poverty. However, progress in reducing poverty rates is ongoing and the number of extreme and moderate working poor is projected to decline to 16.4 million in 2018.

SUB-SAHARAN AFRICA

Economic growth is anticipated to improve by more than a full percentage point from previous year's historically low level of growth of 1.4 per cent, to 2.6 per cent in 2017. This upturn in growth is attributable, in large part, to the recovery in oil and agricultural production in Nigeria and improving drought conditions in much of eastern and southern Africa. Yet, growth remains at only half the annual average of around 5 per cent over the past ten years. Despite improvements in some areas, many countries, particularly commodity exporters, continue to face macroeconomic strains arising from fiscal tightening due to lower commodity revenues and unsustainable public debt and debt servicing. Climate uncertainty and political instability also present major challenges. Climate shocks are particularly acute due to the region's heavy reliance on the agricultural sector, not only for employment but also for everyday livelihoods, a situation which places many lives at risk of increased poverty and food insecurity. Overall, boosting sustainable and inclusive growth in the region will require economic diversification, particularly among the commodity exporters, in order to raise sufficient domestic revenue to counteract the existing macroeconomic strain, create a fiscal buffer for essential public spending, such as strengthening public infrastructure, increase investment demand and tackle poverty. Moreover, it is anticipated that the projected gradual increase in economic growth will be insufficient to match population growth, making improvements in labour market outcomes even more difficult to achieve.

Strong population growth puts pressure on unemployment and poor-quality employment

Sub-Saharan Africa's unemployment rate stood at 7.2 per cent in 2017, essentially remaining unchanged. The number of unemployed increased by more than 1 million due to the region's strong labour force growth. While the unemployment rate is relatively low in comparison to the other developing regions, the rate masks the cross-country heterogeneity prevalent in the region: for instance, in South Africa, the unemployment rate stands at 27.7 per cent in 2017. Moreover, little progress has been made in narrowing the gender gap in sub-Saharan Africa over the past decade (ILO, 2017c).

However, the unemployment rate offers only a partial representation of the labour market situation in sub-Saharan Africa, given that a significant share of the working-age population is simply too poor not to work and most countries do not provide unemployment benefits. Hence, the primary challenge facing its labour market is poor-quality employment, evidenced by the high incidences of vulnerable and informal employment. The vulnerable employment rate is expected to reach more than 72 per cent in 2018, surpassing Southern Asia and making sub-Saharan Africa the region with the highest rate globally. This means that the number of people in vulnerable forms of employment is expected to increase by over 8 million, reaching 279 million in 2018.

The region also faces one of the highest rates of informality outside the agricultural sector, ranging from 34 per cent in South Africa to 90.6 per cent in Benin (ILO, forthcoming). The challenge presented by informality is severe and persistent, especially as the informal economy is frequently characterized by high levels of poverty, inequality and decent work deficits. A high rate of informality also arises in cases where a large working-age population faces the economic necessity to work while confronting a widespread lack of formal job opportunities. Hence, with a rapidly growing working-age population in the region, this becomes an ever-greater challenge as the informal economy often acts as a buffer by providing a job of last resort, which is an absolute necessity for survival. Yet, this prevalence of informal employment acts as a constraint not only to improving employment conditions, but also to growing labour productivity and increasing economic development in the region. For women in particular, informal employment is pervasive. In some parts of sub-Saharan Africa, the gender gap in informal employment is more than 20 percentage points. Among youth, the gender gap is even wider.

Pervasive poor-quality employment in the context of a growing and young working-age population has the potential to endanger future development opportunities. In the context of current trends in structural transformation (Chapter 3), the challenge remains significant for a region with the lowest enrolment rates in secondary and tertiary education. Nevertheless, a growing youth population, despite its challenges, can provide an important opportunity to expand the labour potential of the region. As a result, investing in youth education, closing gender gaps in both labour markets and education, promoting efficient school-to-work transitions and creating decent jobs will be necessary to reap the dividends of the demographic shift in the region (ILO, 2017b).

Declining extreme working poverty amid growth in moderate working poverty

Sub-Saharan Africa continues to experience very high rates of extreme working poverty (i.e. living on less than US$1.90 per day in PPP terms), at 36.6 per cent, and moderate working poverty (i.e. living on between US$1.90 and US$3.10 per day), at 24.4 per cent in 2017. While the rate of extreme working poverty is expected to decline by 2019, moderate working poverty is anticipated to increase by close to 6 million. Overall, this represents a total of 228 million workers in sub-Saharan Africa living in either extreme or moderate poverty. The challenge of working poverty is even worse for young people, as the region is home to the highest youth working poverty rate, with nearly 67 per cent of young workers in sub-Saharan Africa living in poverty in 2017. In the past decade, the number of sub-Saharan youth in working poverty has increased by more than 7 million, to reach 58 million.

Americas

NORTHERN AMERICA

Growth in Northern America accelerated in 2017 and is expected to be sustained into 2018

GDP in Northern America grew by 2.3 per cent in 2017, demonstrating a positive recovery of nearly a full percentage point from 1.5 per cent in the previous year. Stronger activity in the United States and Canada was prompted by supportive financial conditions and lower market volatility. The improvement in 2017 was principally driven by higher growth of 3 per cent in Canada, compared with 1.5 per cent in 2016. The United States showed gradual improvements, with a growth rate of 2.2 per cent in 2017 compared with 1.5 per cent in 2016. Recovery in the energy sector has also strengthened business investment in the region.

Yet, in the medium term, economic growth is anticipated to be constrained by the slower rate of growth in the working-age population (Chapter 4) and the rising share of retirees. Northern America has seen an exceptional situation of low inflation in spite of declining unemployment rates and low interest rates. This trend is also related to the weak transmission effect of falling unemployment rates on spurring faster wage growth. This situation has been substantially attributed to the relatively high share of involuntary part-time workers in the region, where wage growth has been particularly weak (IMF, 2017b). In fact, since the recent financial crisis, weak growth in median income has been paired with deepening income inequality (ibid.).

Improvements in unemployment supported by recovery

Unemployment in the region is expected to decline from 4.7 per cent in 2017 to 4.5 per cent in 2018. This is driven by a drop in the unemployment rate in both Canada and the United States. Yet, the number of unemployed in Canada remains unchanged, as the workforce expands. Both countries are expected to have relatively stable unemployment rates into 2019 (table 2.2).

Table 2.2

Unemployment trends and projections, Northern America, 2007–19

Country/region	Unemployment rate, 2007–19 (percentages)				Unemployment, 2017–19 (millions)		
	2007–16	2017	2018	2019	2017	2018	2019
Northern America		**4.7**	**4.5**	**4.6**	**8.5**	**8.3**	**8.5**
Canada		6.4	6.3	6.3	1.3	1.3	1.3
United States		4.4	4.3	4.4	7.2	7.0	7.2

Source: ILO Trends Econometric Models, November 2017.

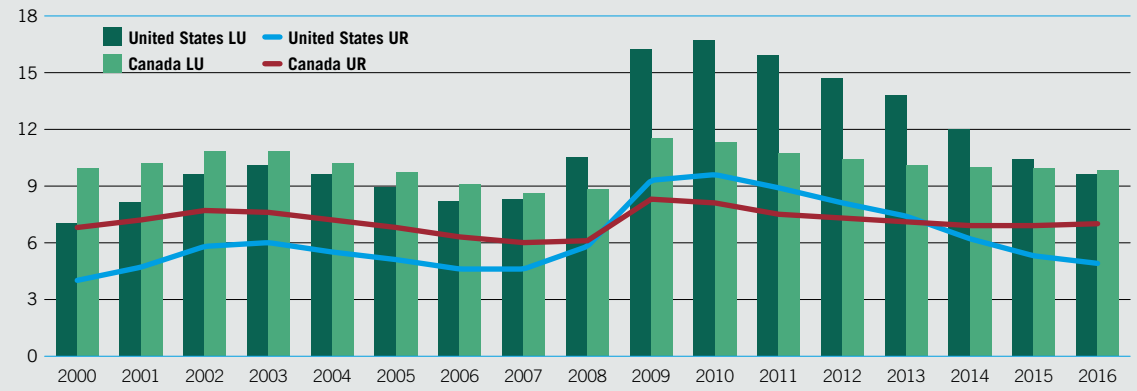
Greater slack in the labour market despite declining unemployment rates is putting downward pressure on wage growth

Despite the steady decline in the unemployment rate in the region, the rate of labour underutilization[1] has not improved to the same extent, indicating the presence of a substantial degree of slack in the region's labour market (figure 2.1). This situation is highlighted in the United States, where the rate of labour underutilization continues to remain elevated despite the decline in the unemployment rate.

1. A composite measure of labour market underutilization is used, which applies the ratio of time-related underemployment, unemployment and potential labour force to the sum of the labour force and potential labour force.

Figure 2.1

Composite measure of labour underutilization and unemployment rate, 2000–16 (percentages)



Note: The labour underutilization (LU) indicator used is the composite measure of labour underutilization (LU4) as per Resolution I of the 19th International Conference of Labour Statisticians (http://www.ilo.org/wcmsp5/groups/public/---dgreports/---stat/documents/normativeinstrument/wcms_230304.pdf). Lines represent the unemployment rate (UR).

Source: ILOSTAT.

Importantly, the labour market slack, as shown in figure 2.1, has been contributing to the slowdown in wage growth in the region. While unemployment rates have declined, the decline has coincided with an increase in involuntary part-time employment. In the United States, the share of involuntary part-time employment in total part-time employment has increased from 5.3 per cent in 2007 to 8.1 per cent in 2016. For Canada, the rate remains elevated at 27.5 per cent in 2016 compared to 23.2 per cent in 2007. This trend, coupled with the higher incidence of temporary contracts in both countries,[2] has resulted in weaker wage growth.[3]

LATIN AMERICA AND THE CARIBBEAN

After the growth recovery in 2017, the region's economic prospects are expected to strengthen further over the next couple of years

Economic growth in the Latin America and the Caribbean region is expected to rebound over the forecast horizon, reaching 1.8 per cent in 2018 and 2.4 per cent in 2019. This represents a substantial improvement from the situation in 2017, when regional GDP is estimated to have expanded by 1.0 per cent. A major part of the anticipated improvement is attributable to developments in Brazil, where GDP growth is projected to double, to reach 1.5 per cent in 2018, up from 0.7 per cent in 2017. Economic growth is expected to remain relatively strong, above 2.5 per cent in 2018, in both Argentina and Chile, whereas it is projected to decelerate in Mexico from 2.1 per cent in 2017 to 1.9 per cent in 2018.

2. Approximately 10 per cent of the workforce in the United States have irregular and on-call work schedules, with the lowest-income workers being most severely affected (ILO, 2016c). In Canada, temporary employment has increased steadily over the past three decades. In 1989, it accounted for 7 per cent of wage employment; by 1997, the figure had reached 11.3 per cent, rising to 13.4 per cent by 2014 (ibid.).

3. A recent study finds that a 1 percentage point increase in involuntary part-time employment share is associated with a 0.3 percentage point decline in nominal wage growth (IMF, 2017b).

Table 2.3

Unemployment, vulnerable employment and working poverty trends and projections, Latin America and the Caribbean, 2007–19

Country/region	Unemployment rate, 2007–19 (percentages)				Unemployment, 2017–19 (millions)		
	2007–16	2017	2018	2019	2017	2018	2019
Latin America and the Caribbean		**8.2**	**7.9**	**7.7**	**25.5**	**24.8**	**24.4**
Brazil		12.9	11.9	11.2	13.4	12.5	12.0
Mexico		3.5	3.6	3.7	2.0	2.1	2.2
	Vulnerable employment rate, 2007–19 (percentages)				Extreme and moderate working poverty rate, 2017–19 (percentages)		
	2007–16	2017	2018	2019	2017	2018	2019
Latin America and the Caribbean		**32.2**	**32.1**	**32.1**	**8.7**	**8.5**	**8.1**

Note: The vulnerable employment rate is defined as the share of own-account workers and contributing family workers in total employment. Moderate and extreme working poverty rates refer to the shares of workers living on income or consumption per capita between US$1.90 and US$3.10 per day (PPP) and less than US$1.90 per day (PPP), respectively. Working poverty figures exclude high-income countries in the regional and subregional aggregates. The unemployment rate for countries shown in this table could differ from that reported by national statistical offices in cases where their definition of unemployment differs from the standards established by the International Conference of Labour Statisticians.

Source: ILO Trends Econometric Models, November 2017.

The regional unemployment rate is expected to decrease slightly, while remaining far above the low levels of 2014

The unemployment rate for the region is projected to decrease over the forecast horizon, going from 8.2 per cent in 2017 to 7.7 per cent by 2019 (table 2.3), but remaining considerably higher than the low point of 6.1 per cent recorded in 2014. The relatively slow pace of unemployment reduction at the regional level is dictated by the varying labour market outlooks across countries in the region. For instance, the unemployment rate in Brazil is projected to decrease significantly for the first time since 2014, reaching 11.9 per cent in 2018, down from 12.9 per cent in 2017. The unemployment rate is also projected to decrease in Argentina and Costa Rica, although to a lesser extent. Conversely, the unemployment rate is expected to increase, albeit slightly, in Mexico (from 3.5 per cent, reaching 3.6 per cent in 2018 and 3.7 per cent in 2019), as well as in Colombia, Ecuador and Chile. Overall, the number of unemployed in the region is set to gradually decline, remaining at just below 25 million over the next couple of years.

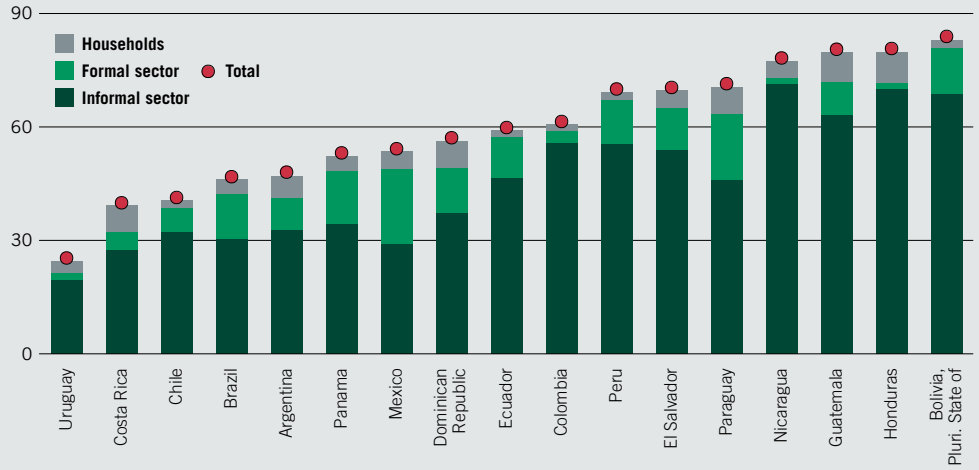
Improvements in work quality have stagnated, while informality remains pervasive

The share of workers in vulnerable employment has risen for the third consecutive year, reaching 32.2 per cent in 2017 (a full percentage point higher than in 2014), where it is expected to remain through to 2019. This means that the number of workers in vulnerable employment is expected to continue to increase, reaching over 91 million in 2018, up from 87 million in 2014. In addition, the incidence of informality in the region remains pervasive, and one of the highest globally. The mean share of informal employment in total employment across countries in the region is around 58 per cent, ranging from 24.5 per cent in Uruguay to over 83 per cent in Bolivia (figure 2.2). This share is also high in countries with relatively higher levels of income, such as Chile, Brazil and Argentina, where it stands above 40 per cent, exceeding 53 per cent in Mexico and 60 per cent in Colombia.[4] There are no significant

4. For a further discussion on informality, see ILO (2017d).

Figure 2.2

Share of informal employment by sector of activity, latest year (percentages of total employment)



Note: The figure shows the share of informal employment in total employment, decomposed according to whether the informal workers are employed in the informal sector, the formal sector or the household sector.

Source: ILO, forthcoming.

differences in the composition of informality across countries in the region, where the bulk of informal employment is found among own-account workers and employers operating in the informal sector. However, in some countries, including Mexico, Paraguay and, to a lesser extent, Brazil, the incidence of informal jobs is also significant among formal enterprises. This calls for differentiated policy actions, focusing on encouraging formalization of both informal enterprises and informal workers within formal enterprises. Reducing informality is arguably one of the most promising pathways to eradicating extreme and moderate working poverty, which still affects more than 8 per cent of workers in the region.

Arab States

The economic outlook is improving, but remains dependent on geopolitical tensions across the region

Economic growth in the Arab States region is expected to rebound, reaching 2.3 per cent in 2018, up from 0.1 per cent in 2017, and remaining steady in 2019. The projected improvements are due to the economic recovery in countries of the Cooperation Council for the Arab States of the Gulf (GCC), where GDP is set to expand by 2.2 per cent in 2018, up from 0.5 per cent in 2017, driven by stronger activity in the non-oil sectors and continuing fiscal expansion. Yet, despite a decline in uncertainty surrounding the oil price outlook, significant downside risks remain as a result of the heightened geopolitical tensions in several countries in the region. In non-GCC countries, long-lasting geopolitical concerns and, in some cases, active armed conflicts continue to restrain economic activity, such that GDP growth is expected to hover around 2 per cent over the forecast horizon.

The labour market outlook is stable, but substantial structural changes are needed to generate improvements in GCC countries

Labour market conditions are expected to remain relatively stable, with the regional unemployment rate projected to decline slightly to 8.3 per cent in 2018 and to edge upward again in 2019 (table 2.4). As a result, it is anticipated that almost 5 million people will be unemployed in 2018, with women accounting for almost one-third of the unemployed pool, despite representing only 16 per cent of the regional labour force. In fact, large gender disparities persist in the Arab States. At 16.7 per cent in 2017, the unemployment rate for women is more than twice that for men, while the female labour market

Table 2.4

Unemployment, vulnerable employment and working poverty trends and projections, Arab States, 2007–19

Country/region	Unemployment rate, 2007–19 (percentages)				Unemployment, 2017–19 (millions)		
	2007–16	2017	2018	2019	2017	2018	2019
Arab States		**8.5**	**8.3**	**8.4**	**4.7**	**4.8**	**4.9**
GCC		4.9	4.9	4.9	1.4	1.4	1.4
Saudi Arabia		*5.7*	*5.6*	*5.5*	*0.8*	*0.8*	*0.8*
Non-GCC		12.1	11.7	11.9	3.4	3.3	3.5
	Vulnerable employment rate, 2007–19 (percentages)				**Vulnerable employment, 2017–19 (millions)**		
	2007–16	2017	2018	2019	2017	2018	2019
Arab States		**17.8**	**17.8**	**17.8**	**9.1**	**9.3**	**9.5**
GCC		2.5	2.5	2.6	0.7	0.7	0.7
Non-GCC		34.4	34.3	34.3	8.4	8.6	8.8
	Extreme working poverty rate, 2007–19 (percentages)				**Extreme working poverty, 2017–19 (millions)**		
	2007–16	2017	2018	2019	2017	2018	2019
Arab States		**8.5**	**8.5**	**8.0**	**4.4**	**4.4**	**4.3**
GCC		0.0	0.0	0.0	0.0	0.0	0.0
Non-GCC		17.8	17.6	16.6	4.4	4.4	4.3
	Moderate working poverty rate, 2007–19 (percentages)				**Moderate working poverty, 2017–19 (millions)**		
	2007–16	2017	2018	2019	2017	2018	2019
Arab States		**12.0**	**12.0**	**12.1**	**6.1**	**6.3**	**6.5**
GCC		0.3	0.3	0.2	0.1	0.1	0.1
Non-GCC		24.7	24.8	24.8	6.0	6.2	6.4

Note: The vulnerable employment rate is defined as the share of own-account workers and contributing family workers in total employment. Moderate and extreme working poverty rates refer to the shares of workers living on income or consumption per capita between US$1.90 and US$3.10 per day (PPP) and less than US$1.90 per day (PPP), respectively. GCC aggregate refers to those countries belonging to the Cooperation Council for the Arab States of the Gulf, namely Bahrain, Kuwait, Oman, Qatar, Saudi Arabia and United Arab Emirates. Non-GCC refers to the country group comprising Iraq, Jordan, Lebanon, Occupied Palestinian Territory, Syrian Arab Republic and Yemen. The unemployment rate for countries shown in this table could differ from that reported by national statistical offices in cases where their definition of unemployment differs from the standards established by the International Conference of Labour Statisticians.

Source: ILO Trends Econometric Models, November 2017.

participation rate, standing at 18.8 per cent in 2017, remains almost 30 percentage points below the global average. However, there are some early indications of improvement in women's labour market prospects as the female unemployment rate is expected to reach 16 per cent in 2018, the lowest rate since 2000. Meanwhile, youth continue to face substantially worse labour market conditions than their adult counterparts. In particular, the recent slowdown in economic growth has further exacerbated the youth labour market outlook. Since 2015, the youth unemployment rate has climbed by more than 2 percentage points to reach 25.6 per cent in 2017, the second highest rate globally after Northern Africa.

Across the GCC economies, the unemployment rate is projected to remain stable at 4.9 per cent in the years to 2019 (table 2.4). The labour force participation rate, however, is projected to fall below 63 per cent over the next couple of years, the first such decline since 2003. At the same time, it is important to recognize that unemployment figures largely reflect the labour market dynamics of migrant workers, who, in the majority of GCC countries, represent over half of all employed people and are mainly employed in the private sector, in contrast to GCC citizens, who are predominantly employed in the public sector. Over the longer term, the return to more robust growth and employment creation in GCC countries is closely linked to their potential to diminish dependence on oil through diversification and change the primary locus of growth from the public to the private sector.

Labour market conditions in non-GCC countries remain challenging, as active wars and security risks are disrupting the economic and social structure there. To the extent possible, the labour market outlook for these countries tends to mirror the difficult socio-economic and geopolitical situation, with the unemployment rate expected to remain high, at 12.1 per cent in 2017, up from 11.9 per cent in 2016 (table 2.4).

Social conditions remain difficult, and are worsening in non-GCC countries

In GCC countries, extreme working poverty has been virtually eradicated, and vulnerable employment rates are also modest. Yet, concerns regarding the poor working conditions of non-nationals persist (ILO, 2014a). Meanwhile, in non-GCC countries the share of workers in vulnerable employment is expected to have grown in 2017 for the third consecutive year, reaching 34.4 per cent of total employment. As a result, in these countries working poverty remains a pressing concern. Nearly 18 per cent of workers were estimated to be living in extreme poverty and a further 24.7 per cent in moderate poverty in 2017. Overall, more than 42 per cent (or over 10 million) of employed people in non-GCC countries are estimated to live in extreme or moderate poverty in 2017, up from 40 per cent in 2016 and 28.7 per cent in 2010. Future social developments in some of these countries, notably Jordan and Lebanon, also depend on their ability to integrate the large numbers of refugees from the Syrian Arab Republic present within their borders. Jordan has taken action to address this issue, by amending work permit procedures and regulations to facilitate the issue of work permits for Syrian refugees. As a result of these and other measures, the number of Syrians with work permits in Jordan increased from 4,000 to 40,000 during the year 2016 (ILO, 2017e).

Asia and the Pacific

Growth remains on track, in a context of ongoing structural changes

Economic growth in the Asia and the Pacific region is expected to remain buoyant, at around 5.5 per cent over the forecast horizon. The outlook for Eastern Asia is broadly in line with the regional average, although GDP growth is expected to decline from 5.5 per cent in 2017 to 5.1 per cent in 2018. The slowdown in economic growth in Eastern Asia largely reflects the slight easing of the rate of growth in China, which is expected to reach 6.5 per cent in 2018, down from 6.8 per cent in 2017. Economic activity in China is expected to be driven by continued fast growth in public infrastructure and in the services sector, partly offset by disinvestments in capital-intensive industries and a shrinking workforce. Conversely, India's economy, which is anticipated to expand by 7.4 per cent in 2018 (up from 6.7 per cent in 2017), is contributing to the pick-up in economic activity in Southern Asia. Real GDP in this region is projected to grow by 6.7 per cent in 2018 and by 7.0 per cent in 2019, up from 6.2 in 2017. In South-Eastern Asia and the Pacific, economic growth will remain relatively stable at 4.8 per cent in both 2018 and 2019, but slightly higher than the anticipated growth rate for 2017.

Employment continues to grow, but often remains of a vulnerable nature

Unemployment levels in the Asia and Pacific are expected to remain low relative to other regions, and constant over the forecast horizon at around 4.2 per cent (table 2.5). This is largely due to the fact that employment growth in the region is expected to remain strong, with the number of employed persons projected to grow by some 23 million (or 1.2 per cent) between 2017 and 2019. Southern Asia, due to its rapid labour force growth, is expected to account for close to 90 per cent of the total employment growth in Asia and the Pacific. Conversely, employment growth in Eastern Asia is expected to be marginal, mainly as a result of the shrinking workforce in China.

Moreover, a large proportion of the jobs created in the region are expected to remain of poor quality. The share of vulnerable employment in total employment is projected to remain roughly unchanged in the years to 2019. In particular, vulnerable employment will continue to affect roughly 72 per cent of workers in Southern Asia, 46 per cent in South-Eastern Asia and the Pacific, and 31 per cent in Eastern Asia. Meanwhile, vulnerable employment continues to be more pervasive among women than men. This is especially the case in South-Eastern Asia and the Pacific, as well as in Southern Asia, where vulnerable employment rates among women are respectively more than 10 and 8 percentage points higher than those of men.

The high and persistent incidence of vulnerable employment is closely associated with the fact that the pace of structural transformation processes, whereby capital and workers transfer from low to higher

Table 2.5

Unemployment, vulnerable employment and working poverty trends and projections, Asia and the Pacific, 2007–19

Country/region	Unemployment rate, 2007–19 (percentages)				Unemployment, 2017–19 (millions)		
	2007–16	2017	2018	2019	2017	2018	2019
Asia and the Pacific		**4.2**	**4.2**	**4.2**	**82.9**	**83.6**	**84.6**
Eastern Asia		4.5	4.5	4.6	41.8	41.8	42.0
China		*4.7*	*4.7*	*4.8*	*37.4*	*37.6*	*37.8*
Japan		*2.8*	*2.6*	*2.6*	*1.9*	*1.8*	*1.7*
Korea, Republic of		*3.8*	*3.7*	*3.7*	*1.0*	*1.0*	*1.0*
South-Eastern Asia and the Pacific		3.4	3.4	3.5	11.7	12.0	12.4
Australia		*5.7*	*5.6*	*5.4*	*0.7*	*0.7*	*0.7*
Indonesia		*4.3*	*4.4*	*4.6*	*5.4*	*5.7*	*5.9*
Southern Asia		4.1	4.1	4.1	29.5	29.7	30.2
India		*3.5*	*3.5*	*3.5*	*18.3*	*18.6*	*18.9*
	Vulnerable employment rate, 2007–19 (percentages)				Vulnerable employment. 2017–19 (millions)		
	2007–16	2017	2018	2019	2017	2018	2019
Asia and the Pacific		**48.6**	**48.7**	**48.7**	**929.8**	**936.8**	**943.7**
Eastern Asia		31.2	31.1	31.0	276.6	275.1	273.5
South-Eastern Asia and the Pacific		46.2	46.1	46.0	154.5	156.1	157.6
Southern Asia		72.1	72.0	71.9	498.7	505.7	512.6
	Extreme working poverty rate, 2007–19 (percentages)				Extreme working poverty. 2017–19 (millions)		
	2007–16	2017	2018	2019	2017	2018	2019
Asia and the Pacific		**7.5**	**6.9**	**6.4**	**144.3**	**133.5**	**124.3**
Eastern Asia		3.5	3.3	3.1	31.3	29.0	27.2
South-Eastern Asia and the Pacific		5.6	5.2	4.7	18.9	17.5	16.2
Southern Asia		13.6	12.4	11.3	94.1	87.1	80.9
	Moderate working poverty rate, 2007–19 (percentages)				Moderate working poverty. 2017–19 (millions)		
	2007–16	2017	2018	2019	2017	2018	2019
Asia and the Pacific		**15.8**	**15.2**	**14.5**	**302.9**	**291.8**	**281.1**
Eastern Asia		6.2	5.5	4.8	54.8	48.3	42.7
South-Eastern Asia and the Pacific		14.0	13.3	12.7	46.7	45.0	43.4
Southern Asia		29.1	28.2	27.4	201.4	198.4	195.0

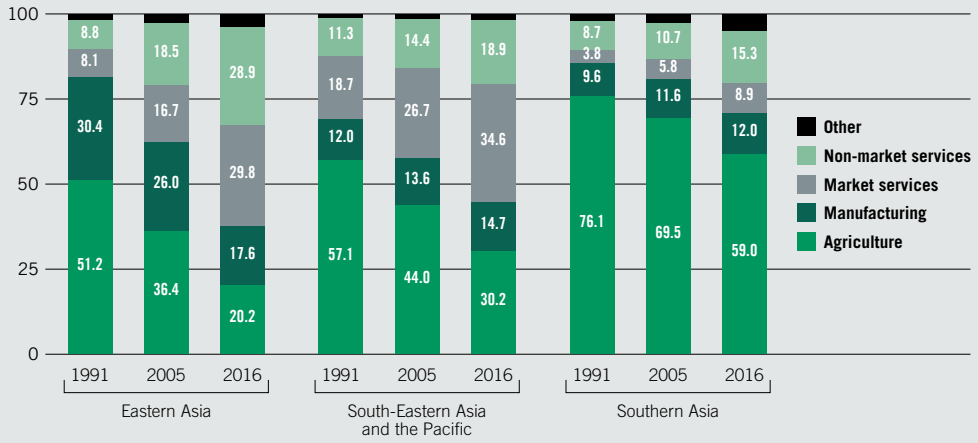
Note: The vulnerable employment rate is defined as the share of own-account workers and contributing family workers in total employment. Moderate and extreme working poverty rates refer to the shares of workers living on income or consumption per capita between US$1.90 and US$3.10 per day (PPP) and less than US$1.90 per day (PPP), respectively. Working poverty figures exclude high-income countries in the regional and subregional aggregates. The unemployment rate for countries shown in this table could differ from that reported by national statistical offices in cases where their definition of unemployment differs from the standards established by the International Conference of Labour Statisticians.

Source: ILO Trends Econometric Models, November 2017.

value added sectors, remains relatively slow in large parts of the region. In fact, significant shares of the employed population continue to work in agriculture or in low-productivity traditional services (e.g. wholesale and retail services, accommodation and food services activities), where vulnerable employment is typically widespread. The process of structural transformation has been proceeding slowly in Southern Asia, where agricultural employment still represents 59 per cent of total employment, while manufacturing accounts for only 12 per cent, and services for about 24 per cent. In South-Eastern Asia and the Pacific there have been stronger signs of diversification away from agriculture, with the region's economy increasingly becoming service based, but experiencing only a slight increase in the share of manufacturing employment. Eastern Asia, primarily driven by China, has seen first the share of agricultural employment, and subsequently that of manufacturing, decrease at a fast pace, with workers increasingly relocating to service activities (figure 2.3). These trends are expected to

Figure 2.3

Employment shares by aggregate sector in 1991, 2005 and 2016 (percentages)



Note: Aggregate economic activities are defined in ILOSTAT documentation (available at: www.ilo.org/ilostat-files/Documents/description_ECO_EN.pdf).

Source: ILO Trends Econometric Models, November 2017.

continue, to various degrees, over the next few years, posing questions about the role of the services sector as a creator of quality jobs and driver of economic development (see Chapter 3). In fact, while there has been strong job creation in some ICT-intensive services, notably in India, a significant portion of the jobs created in the services sector over the past couple of decades have been in traditional low value added services, where informality and vulnerable forms of employment are often dominant.

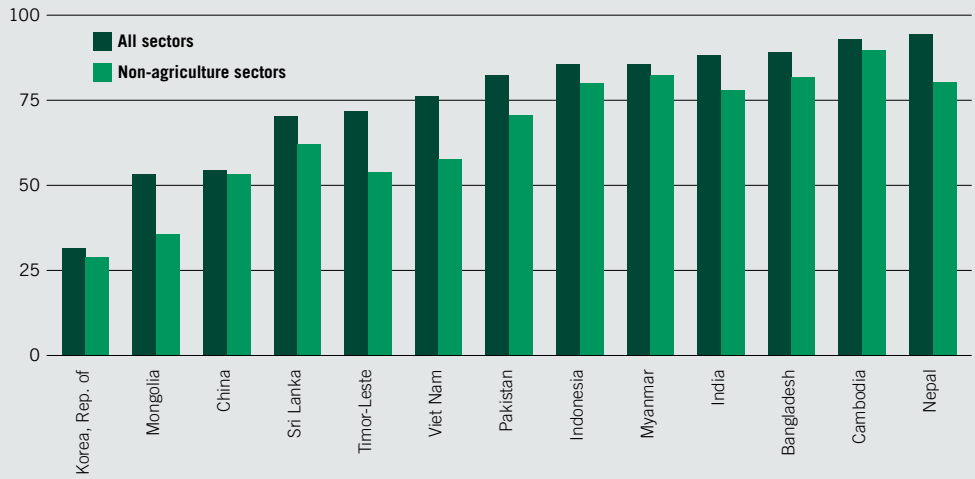
While the incidence of working poverty continues to decrease, informality in the region remains the highest globally

The incidence of working poverty in Asia and the Pacific is expected to continue on its downward trend over the next couple of years. As of 2017, 23.4 per cent of the working population was living in extreme or moderate poverty, down from over 44 per cent in 2007. Despite such remarkable progress, working poverty remains high in some parts of the region, notably in Southern Asia. Over 42 per cent of workers in the Asia-Pacific region are estimated to be in either extreme or moderate poverty, accounting for more than two-thirds of all working poor in the region. The rates of extreme and moderate working poverty continue to decline in South-Eastern Asia and the Pacific, although they remain among the highest globally, at a combined rate of 19.6 per cent in 2017. Conversely, Eastern Asia currently has the lowest extreme and moderate working poverty rates, both slightly above 3 and 6 per cent, respectively.

The high incidence of informality continues to undermine the prospects of further reducing working poverty, especially in South and South-Eastern Asia. Indeed, informality affects around 90 per cent of all workers in India, Bangladesh, Cambodia and Nepal (figure 2.4). Such a high incidence of informality is only partially driven by the high shares of employment in agriculture – a sector in which informality is typically higher than in the rest of the economy. In fact, informality in these countries also remains pervasive in the non-agriculture sectors, such as construction, wholesale and retail trade, and accommodation and food service industries. In addition, it is noteworthy that informality continues to affect more than half of all workers in China, with no significant difference discernible between the agriculture sector and the rest of the economy.

Figure 2.4

Share of informal jobs by sector, latest year (percentages of employment)



Source: ILO, forthcoming.

Europe and Central Asia

NORTHERN, SOUTHERN AND WESTERN EUROPE

Economic growth in 2017 has attained the highest rate in a decade, but is projected to decelerate as cyclical forces mature and policy support wanes

Export growth, a rebound in private investment and greater market confidence have significantly benefited economic activity in the Northern, Southern and Western Europe region. The region's GDP growth stood at 2.1 per cent in 2017, up from 1.8 per cent in 2016, the highest rate since 2007. GDP growth is projected to normalize over the next couple of years, reaching 1.8 per cent in 2018 and 1.6 per cent in 2019. The expectation of tighter monetary policy from the European Central Bank is one of the main factors weighing negatively on the regional economic outlook. Less supportive fiscal policy, low wage growth and persistent labour market slack in some countries of the region are also expected to constrain growth potential. Other downside risks to the outlook depend on the outcomes of the Brexit negotiations, as well as the possibility of tighter external demand due to the structural rebalancing within China, and protectionist policies being embraced by other key trading partners. These risks are, however, partially offset by a decline in investor uncertainty, confirmed by the region's return to relatively robust investment growth over the past year.

The business cycle has been closely synchronized across countries in the region, with the majority of economies expected to see slightly slower GDP growth in 2018, after the strong rebound during 2017. In particular, real GDP growth is expected to slow in Germany, from 2.1 per cent in 2017 to 1.8 per cent in 2018, and Italy, from 1.5 per cent in 2017 to 1.1 per cent in 2018. Growth should also decelerate in Portugal and Spain, although remaining above 2 per cent in 2018 in both countries. Conversely, economic activity is projected to pick up in France, and more so in Greece, where it should expand by 2.6 per cent, the highest rate since 2007. The effects of the Brexit negotiations are still not clearly apparent in the economic outlook for the United Kingdom, where GDP growth is expected to decrease only slightly, from 1.7 per cent in 2017 to 1.5 per cent in 2018, although increases in inflation may have negative repercussions on import-dependent sectors.

The unemployment rate has fallen to its pre-crisis level, but structural issues persist

Sustained by better-than-expected economic activity, the unemployment rate in the region is projected to have dropped from 9.2 per cent in 2016 to 8.5 per cent in 2017 – the lowest rate since 2008. The pace of improvement in the regional labour market is anticipated to decelerate only slightly over the next couple of years, during which time the regional unemployment rate should decrease further to reach 8.1 per cent in 2018 and 7.8 per cent in 2019. This translates into a decline in the number of unemployed people of around 1.5 million by 2019 (table 2.6).

The anticipated improvement in regional labour markets in 2018 is expected to be broadly based across countries. The largest reductions in unemployment rates in 2018, in the order of 2 percentage points, are projected in Greece and Spain, where the unemployment rate is estimated to reach 19.5 and 15.4 per cent, respectively. It is also anticipated that the unemployment rate will continue to fall in 2018 in Ireland, Italy and Portugal, but at a slower pace than during the period 2015–17. The unemployment rate for 2018 is projected to remain relatively stable in France, Germany and the United Kingdom (table 2.6).

However, falling unemployment rates have only partially translated into a lower incidence of long-term unemployment, which remains elevated in the large majority of countries in the region. For instance, the share of people who had been looking for a job for 12 months or longer in the EU-28 stood at 46.2 per cent in the second quarter of 2017, showing only a modest decline from 47.8 per cent in 2016. This equates to some 8.5 million long-term unemployed people, with 63 per cent of them having been unemployed for two years or longer. Moreover, although the long-term unemployment rate has been decreasing slightly at the regional level, it has increased further since 2016 in Germany, Greece, Italy and Slovakia, all countries that were already showing high incidences. As a result, the share of long-term unemployment in total employment remains above 40 per cent in 18 of the 28 EU Member States, and in eight of them it exceeds 50 per cent.

Moreover, although it could be argued that unemployment figures in the region have improved, they do not take into account the unmet demand for employment, which is often considerably larger than a simple assessment of traditional unemployment statistics would suggest. For instance, as of 2016, some 8.8 million people were available to work but did not look for a job and, therefore, were not counted as part of the labour force in the EU-28 (EC, 2017). These persons are typically discouraged from actively searching for employment by the lack of jobs in the area where they live or by previous failure to find employment. In addition, as of 2016, a further 2.3 million persons were looking for a job, without being able to start working within a short time (ibid.). Women and young people, who often have other family- or study-related responsibilities, are particularly likely to belong to this group.

The combination of these two categories – also called the "potential labour force" – accounted for a total of 11 million persons, who are not regarded as being part of the labour force despite having expressed an interest in gaining employment. Considering that this figure represents more than half

Table 2.6

Unemployment trends and projections, Northern, Southern and Western Europe, 2007–19

Country/region	Unemployment rate, 2007–19 (percentages)				Unemployment, 2017–19 (millions)		
	2007–16	2017	2018	2019	2017	2018	2019
Northern, Southern and Western Europe		**8.5**	**8.0**	**7.8**	**18.6**	**17.7**	**17.0**
France		9.7	9.7	9.4	2.9	2.9	2.9
Germany		3.7	3.6	3.5	1.6	1.6	1.5
Italy		11.3	11.0	10.9	2.8	2.7	2.7
United Kingdom		4.3	4.2	4.3	1.5	1.4	1.5

Note: The unemployment rate for countries shown in this table could differ from that reported by national statistical offices in cases where their definition of unemployment differs from the standards established by the International Conference of Labour Statisticians.

Source: ILO Trends Econometric Models, November 2017.

Figure 2.5

Unemployment and potential labour force, 2016 (percentages)

Note: The combined rate of unemployment and potential labour force (LU3) is calculated according to the following formula: LU3 = (unemployment + potential labour force) ÷ (labour force + potential labour force) × 100.

Source: ILO calculations based on the EU Labour Force Survey.

the number of people currently unemployed in the EU-28 (18.7 million in the second quarter of 2017), it is clear that a combined analysis of the potential labour force and those who are unemployed provides a more comprehensive picture of the labour market challenges facing the region. For instance, the combined rate of unemployment and potential labour force – which is the sum of persons in unemployment and potential labour force divided by the extended labour force – shows that the degree of labour underutilization is consistently above the level suggested by the unemployment rate, and especially so in Croatia, Italy and, to a lesser extent, Finland (figure 2.5). This indicates that, as the recovery strengthens and unemployment levels fall, there is scope in several countries in the region for targeted policy actions aimed at reinforcing the labour market attachment of large societal groups, especially discouraged workers and women with family responsibilities.

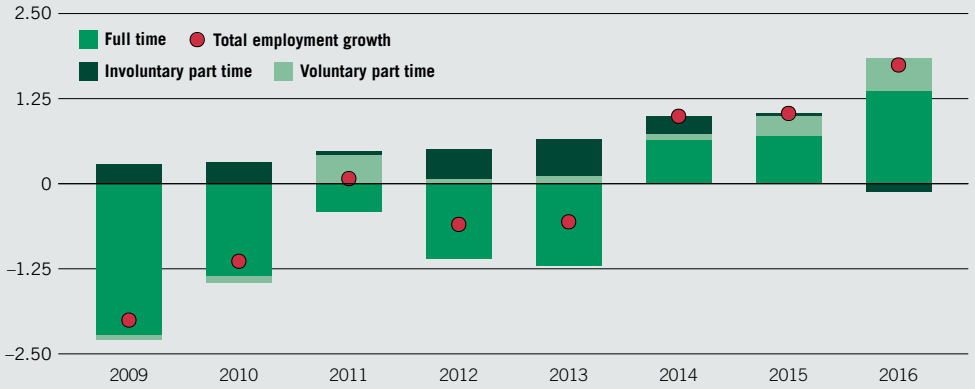
Employment creation has been sustained but is expected to weaken, while the quality of available jobs is a matter for concern

Employment growth has picked up over the period 2015–16, recording an annual average of 1.2 per cent, compared to a mere 0.1 per cent over the period 2011–14. However, employment growth is expected to decelerate, remaining below 1 per cent in both 2017 and 2018. As a result, the regional employment-to-population ratio is projected to stand just below 53 per cent over the next couple of years. The number of people in the labour force is also expected to remain broadly unchanged, with the regional participation rate standing at 57.5 per cent in 2017 and expected to decline gradually over the forecast horizon.

But, while employment has been expanding since 2015, wage growth remains subdued, constraining further improvement in aggregate demand and, in turn, in the labour market. Low inflation expectations, coupled with slow productivity growth, have certainly played a crucial role in limiting wage growth. However, the (often) poor quality of jobs created has also partly contributed to constraining wages. For instance, since the onset of the 2008 financial crisis, a large share of the jobs created, especially in the Euro Area (EA), have been part-time jobs, and workers have often taken them involuntarily, owing to the lack of full-time employment opportunities (figure 2.6). This trend has eased considerably since 2015 as economic uncertainty subsided and the recovery strengthened. Yet, the rate of full-time job creation in recent years has not been adequate to make up for the losses in full-time employment over the period 2008–13, with part-time jobs accounting for over one-quarter of total employment

Figure 2.6

Employment growth decomposition by type of contract in the Euro Area, 2009–16 (percentages)



Source: ILO calculations based on Eurostat.

growth since 2015. As a result, part-time jobs represented 21.6 per cent of total employment in the EA in 2016 (19.5 per cent in the EU-28), up from 18.7 per cent in 2008. As part-time jobs frequently offer lower wages and limited prospects for career advancement (ILO, 2014a; OECD, 2015), more than 30 per cent of part-time workers in the EA would prefer to work full time. The share of involuntary part-time workers is over 60 per cent in most Southern European countries, including Spain, Italy and Greece, where this share is over 70 per cent. It is also important to bear in mind that over 54 per cent of temporary workers – who accounted for 14.4 per cent of total employment in the EU-28 in the second quarter of 2017 – fall within this employment status involuntarily, due to the unavailability of permanent employment.

In addition to the high incidence of labour underutilization, growing shares of overqualified workers may be a further factor underpinning weak wage growth. For instance, the share of workers with upper secondary education employed in high-skilled occupations has fallen from 32.7 per cent in 2008 to 29.6 per cent in 2016, with workers moving to low- and medium-skilled occupations. More importantly, it appears that the share of employment in high-skilled occupations has also declined, albeit slightly, among workers with tertiary education, who have increasingly moved towards medium-skilled jobs.

EASTERN EUROPE AND CENTRAL AND WESTERN ASIA

Economic growth in the region is projected to regain momentum

Economic growth in Eastern Europe has strengthened considerably, climbing from 1.0 per cent in 2016 to 2.6 per cent in 2017. Over the next couple of years, real GDP growth is expected to remain at around 2.2 per cent. The rebound in economic growth is attributable in large part to the return to growth in the Russian Federation after two consecutive years of recession as well as increasing aggregate demand from EU Member States. More robust growth in the Russian Federation, together with increased infrastructure investments and stronger domestic demand, has also contributed to a substantial improvement in the economic outlook in Central and Western Asia. Real GDP growth in the region reached 4.4 per cent in 2017, up from 3.0 per cent in 2016, and is projected to remain around 3.5 per cent in both 2018 and 2019.

The pick-up in economic activity has not led to widespread improvements in labour markets

Following the considerable economic growth rebound in Eastern Europe, the unemployment rate is projected to decline, but only modestly, from 5.5 per cent in 2017 to 5.3 per cent in 2018. This scenario reflects the falling unemployment rates in a number of countries, including Poland, Ukraine and Slovakia, which are only partly offset by the expectation of growing unemployment in the Czech Republic.

Table 2.7

Unemployment, employment and vulnerable employment trends and projections, Eastern Europe and Central and Western Asia, 2007–19

Country/region	Unemployment rate, 2007–19 (percentages)				Unemployment, 2017–19 (millions)		
	2007–16	2017	2018	2019	2017	2018	2019
Central and Western Asia		**8.6**	**8.6**	**8.6**	**6.7**	**6.7**	**6.8**
Turkey		11.3	11.1	11.2	3.5	3.5	3.6
Eastern Europe		**5.5**	**5.3**	**5.1**	**8.1**	**7.6**	**7.3**
Russian Federation		5.2	5.0	4.9	3.9	3.8	3.6
	Vulnerable employment rate, 2007–19 (percentages)				Extreme and moderate working poverty rate, 2017–19 (percentages)		
	2007–16	2017	2018	2019	2017	2018	2019
Central and Western Asia		**30.1**	**29.7**	**29.5**	**5.5**	**5.1**	**4.6**
Eastern Europe		**10.6**	**10.6**	**10.6**	**0.1**	**0.1**	**0.1**

Note: The vulnerable employment rate is defined as the share of own-account workers and contributing family workers in total employment. Working poverty rates refer to the shares of workers living on income or consumption per capita between US$1.90 and US$3.10 per day (PPP). Working poverty figures exclude G20 advanced countries. The unemployment rate for countries shown in this table could differ from that reported by national statistical offices in cases where their definition of unemployment differs from the standards established by the International Conference of Labour Statisticians.

Source: ILO Trends Econometric Models, November 2017.

Considering that regional employment growth is projected to remain in negative territory, the expected drop in unemployment is mainly attributable to a reduction in the labour force of 0.7 per cent per year between 2016 and 2018, partly explained by sustained emigration rates. Meanwhile, the downward trend in the share of workers in vulnerable employment is expected to halt at 10.6 per cent in 2017, remaining around this level over the next couple of years (table 2.7).

Even more markedly than in Eastern Europe, the relatively strong rebound in economic growth in Central and Western Asia is only partially translating into falling unemployment, such that the regional unemployment rate is expected to hover around 8.6 per cent throughout the forecast horizon. The persistence of elevated unemployment rates in spite of relatively strong economic growth is largely due to the fact that the economic structure of countries in the region is too narrowly focused on the commodity sectors, which have limited potential to generate jobs.

Issues of job quality persist, with rates of vulnerable and informal employment remaining substantial

Vulnerable employment remains persistently high in Central and Western Asia, affecting more than 30 per cent of workers in 2017 (table 2.7). This is closely associated with relatively high shares of informal employment, ranging from over 74 per cent in Tajikistan to 34.4 per cent in Turkey. As a result, the pace of reduction of the rates of extreme and moderate working poverty is decelerating. As of 2017, around 5.5 per cent of employed people were living on less than US$3.10 per day (PPP) in Central and Western Asia, a rate that is expected to decline only moderately over the next couple of years. In non-EU Eastern Europe, the incidence of extreme and moderate working poverty should remain negligible. Although these countries have achieved relatively high levels of development, their share of informal employment remains high, especially if compared to the rest of Europe. For instance, informal employment is estimated to account for 38 per cent of total employment in Poland, and close to 36 per cent in the Russian Federation.

3 Structural transformation and implications for future job quality

A comprehensive assessment of structural transformation must take into account its impact on forms of employment and working conditions

The process of structural transformation is typically characterized by the gradual reallocation of production factors from traditional activities (e.g. agriculture and low value added manufacturing) to modern activities (e.g. high value added manufacturing and services). This process, often in combination with other long-term demographic trends, such as urbanization and population ageing, is one of the key stylized facts accompanying economic growth (Timmer et al., 2012). Evidence shows that the countries that were able to diversify away from agriculture and traditional manufacturing, managed to increase productivity and pull themselves out of poverty. This is what happened, for instance, in the majority of developed countries during the first half of the twentieth century and, more recently, in some emerging countries, especially in Asia (Bah, 2009). However, structural transformation is not a mechanical process. Indeed, the processes of structural change followed by many developing countries have often differed significantly from the path taken by developed countries over the past century. In particular, compared to developed countries, the majority of developing countries, especially those in Latin America and Africa, have witnessed contracting shares of both employment and output in the manufacturing sector at relatively lower levels of income per capita (ILO, 2015a; Rodrik, 2016). This phenomenon of "premature deindustrialization" has been found to have important consequences for both the speed of development[1] and the type of employment created. Moreover, there is not necessarily a systematic positive association between structural change, productivity growth and poverty reduction. Reallocation of resources from low- to high-productivity sectors is only one of the factors that contribute to improved overall productivity and livelihoods (ILO, 2013a). In order to achieve sustained economic development, shifts of employment towards modern sectors need to go hand in hand with efforts to improve productivity within each economic activity by investing in technology upgrading, skills development and institutional capabilities (McMillan, Rodrik and Sepúlveda, 2017).

At the same time, structural transformation's capacity to generate widespread and rapid improvements in living standards crucially depends on its potential to create more and better jobs. For instance, structural change based on the expansion of extractive industries, which are typically minimally employment intensive, has failed to provide additional productive job opportunities in many developing countries. Similarly, the rapid growth of ICT services in recent years in some emerging countries, notably India, has not generated enough employment opportunities for the large majority of the population (Ray, 2015). Also, in developed countries, the recent shift away from low-paid manufacturing jobs towards service sector skill-intensive jobs has benefited high-skilled workers, leaving behind those workers who lack the skills demanded by the emerging services (Hurley, Fernández-Macias and Storrie, 2013). Therefore, the skill profile of the newly created jobs, and the degree to which workers possess the required attributes to be fully integrated into the expanding sectors, are crucial in determining the labour market outcomes of structural transformation (Byiers et al., 2015).

1. ILO (2015a) shows that countries with a declining share of manufacturing employment exhibit a higher probability of experiencing a slowdown in growth.

Finally, it is important to recognize that structural transformation may entail not only employment shifts towards high-productivity jobs in the "modern sector", but also employment reallocation into low-productivity, informal occupations (McMillan and Rodrick, 2011; Byiers et al., 2015). Therefore, a comprehensive assessment of structural transformation must go beyond the analysis of its impact on overall employment creation and take into account the effect that structural change has on less tangible labour market outcomes, such as working conditions and employment arrangements.

With this in mind, this chapter investigates the long-term trends in the reallocation of employment across sectors, and assesses their implication for overall working conditions and employment arrangements. Adopting a sectoral perspective to analyse differences in working conditions and employment arrangements can assist in identifying those sectors where there are specific challenges, thus guiding targeted policy responses. Meanwhile, since sectors may vary significantly in terms of socio-demographic characteristics, such as gender, age and educational level, the analysis of working conditions across sectors can help to identify societal groups that are particularly at risk of experiencing poor working conditions. This is especially relevant in light of the evidence that women are disproportionally represented in certain economic activities (ILO, 2017c).

This chapter first presents the projected changes in sectoral employment shares. Next, it reviews current employment conditions in the various sectors. Finally, the impact of the projected sectoral employment reallocation on employment conditions is estimated and analysed. Overall, the results show that cross-sectoral differences in working conditions and types of employment arrangements are typically sizeable, implying that employment shifts across sectors have the potential to change the quality of employment. However, achieving improvements in working conditions relies on the ability of workers to find jobs with better working conditions in the sectors into which they are transitioning, which is by no means guaranteed.

Long-term trends in sectoral employment

Employment in agriculture continues to decline

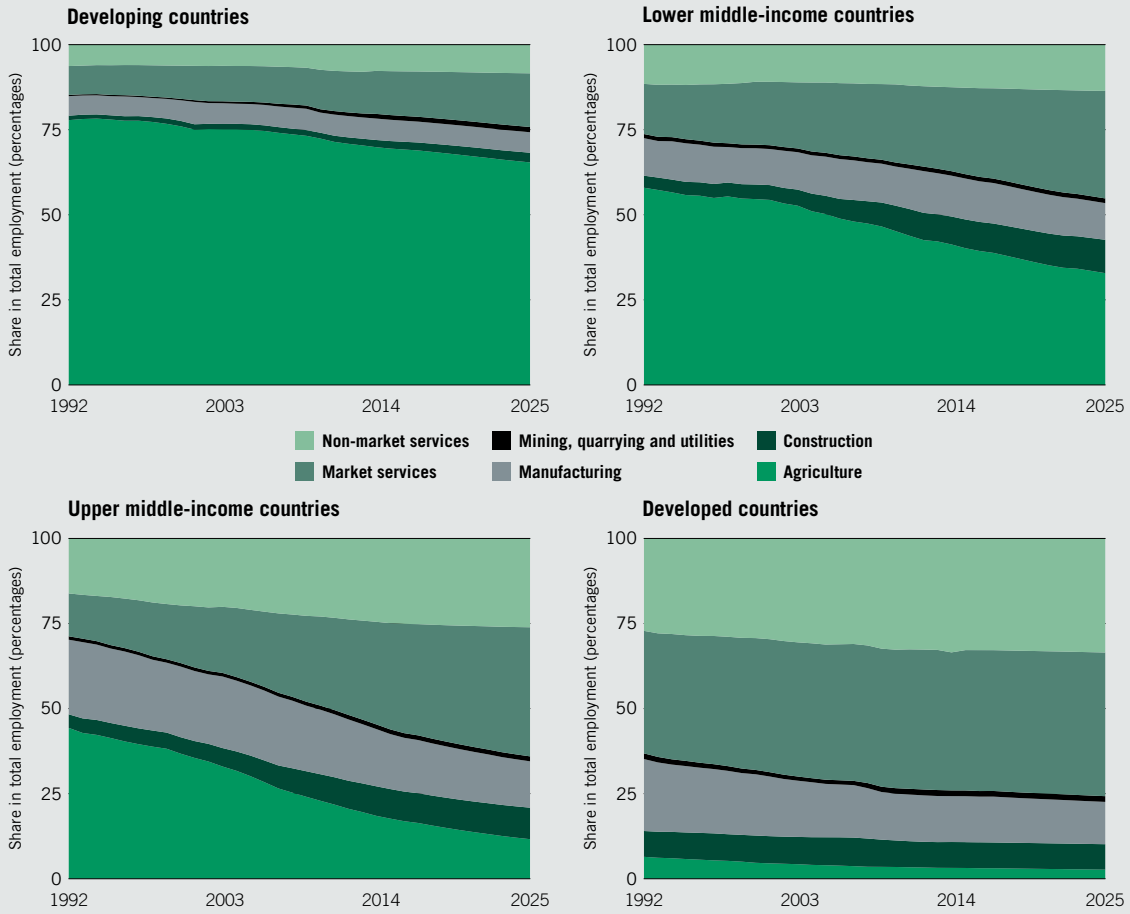
The analysis of the evolution of employment shares across broad economic sectors reveals that the pace and pattern of structural transformation vary considerably both across country groups and over time. In developing countries, the agricultural sector still employs the largest share of workers, at just under 70 per cent in 2017 (figure 3.1). In lower middle-income countries, almost 40 per cent of workers are employed in agriculture, while employment in the sector accounts for only 16 per cent in upper middle-income countries and 3 per cent in developed countries. Across all levels of development, the employment share in agriculture is on a declining trend, although the decline is projected to be most pronounced in lower middle-income countries, dropping by an additional 6 percentage points by 2025 (figure 3.2). In developing countries, the declining trend has accelerated somewhat over the past two decades, with the share of employment in agriculture projected to fall by a further 3.5 percentage points until 2025.

Employment in industry is stagnating or declining

The industrial sectors, including construction, manufacturing, mining, quarrying and utilities, accounted for around 22 per cent of total employment in lower middle-income and developed countries in 2017, but for only around 10 per cent in developing countries. In upper middle-income countries, in contrast, 26 per cent of the workforce are employed in the industrial sectors. Manufacturing is the most important among the industrial sectors, accounting for 16 per cent of total employment in upper middle-income countries, 12 and 13 per cent in lower middle-income and developed countries, respectively, and 6 per cent in developing countries. The share of construction in total employment accounts for 2 per cent in developing countries and close to 9 per cent in lower middle- and upper middle-income countries, and is on an increasing trend. Mining, quarrying and utilities account for only a minor share of employment, as these sectors are highly capital intensive.

Figure 3.1

Employment shares by aggregate sector and income group, 1992–2025



Note: Aggregate economic activities include the following sectors (using International Standard Industrial Classification (ISIC) Rev. 4 sector codes): Agriculture (A), Construction (F), Manufacturing (C), Mining, quarrying and utilities (B, D, E), Market services (G, H, I, J, K, L, M, N), Non-market services (O, P, Q, R, S, T). Further information is available at: www.ilo.org/ilostat-files/Documents/description_ECO_EN.pdf.

Source: ILO Trends Econometric Models, November 2017.

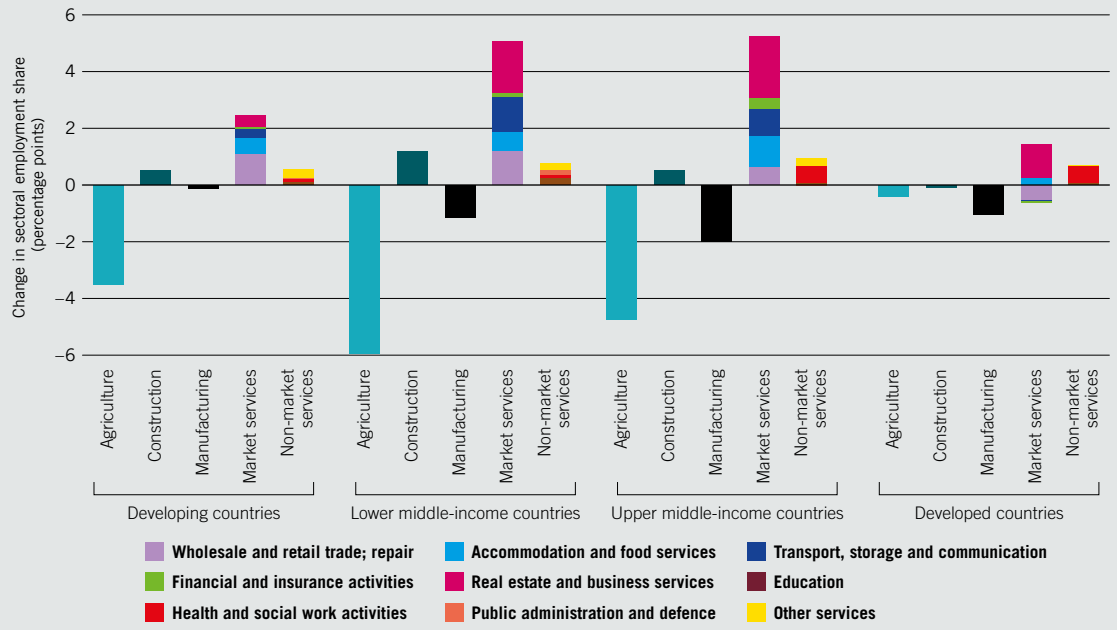
The employment share in manufacturing has declined by 5 percentage points in developed countries over the past two decades, and is projected to decline by a further percentage point by 2025. Upper middle-income countries have experienced an even larger decline in that share – by 6 percentage points – over the past two decades, and the share is projected to decline by a further 2 percentage points by 2025. Developing and lower middle-income countries show signs of premature deindustrialization, since their manufacturing employment share is not projected to increase. Hence, their path to higher development through structural transformation will continue to be markedly different from that taken in the past by developed and upper middle-income countries. This is partly due to the fact that many developing and lower middle-income countries have relied heavily in the past on growth generated by natural resources and traditional services, without developing the necessary capabilities for specialization in manufacturing. This situation is likely to be exacerbated as the increasing adoption of technology, intensification of competition and high-skill intensity in manufacturing are making it more difficult for developing and lower middle-income countries to compete in the global market.

Service sector jobs are the principal driver of future employment growth

By 2017, the service sector employed the largest share of the workforce in all income groups, with the exception of developing countries, where the sector's share of total employment (at 21 per cent) is far smaller than that of agriculture. In lower middle-income countries, market services (at 27 per cent) are twice as important as non-market services (at 12 per cent). In upper middle-income countries,

Figure 3.2

Projected change in employment share by detailed sector, 2017–25



Note: Sectors presented in the figure follow one-digit ISIC Rev.4 classification for most of the sectors, with the exception of transport, storage and communication; real estate and business services; and other services, which combine multiple ISIC Rev.4 activities (see Appendix B for further details). The sectors of mining and quarrying as well as utilities are excluded to save space, as projected employment changes in these sectors are very small.

Source: ILO Trends Econometric Models, November 2017.

the share of employment in market services is only marginally higher than in lower middle-income countries, at 33 per cent, but non-market services employ a significantly larger share, at 25 per cent of the workforce. In developed countries, three out of four workers are employed in the services sector in 2017, with market services accounting for 41 per cent of the total.

Employment in market services has expanded significantly in all income groups over the past few decades, albeit most prominently in upper middle-income countries, where its employment share has doubled since 1997. Going forward, the employment share of market services is projected to expand by around 2 percentage points in developing countries, and by around 5 percentage points in upper middle- and lower middle-income countries. In developed countries, the expansion is projected to be less than 1 percentage point.

Among market services, employment growth in wholesale and retail trade and repair activities is projected to be the main driver of the overall employment expansion in developing countries in the years 2017 to 2025 (figure 3.2). In lower middle- and upper middle-income countries, real estate and business services activities are projected to see the largest expansion in employment, increasing their share in total employment by around 2 percentage points. In developed countries, real estate and business services employment is also projected to expand, while the share of employment in wholesale and retail trade is set to decline. Finally, employment in accommodation and food services will expand to varying degrees in all income groups.

The employment share of non-market services is also projected to increase across all income levels, albeit to a much smaller degree than that of market services. In developing and lower middle-income countries, the education sector is expected to be the principal contributor to that development, increasing its share in total employment by 0.1 and 0.2 percentage points, respectively. In upper middle-income and developed countries that role is projected to be filled by the health and social activities sector, which is set to increase its employment share by 0.6 percentage points. In fact, in developed countries this is the only non-market services sector in which significant changes are anticipated, while in upper middle-income countries the education sector is also projected to increase its employment share by 0.1 percentage point.

Sectoral variation in employment arrangements and working conditions

Understanding how structural change affects the incidence of certain types of employment arrangements and average working conditions is particularly relevant in light of the latest employment reallocation trends, in which the services sector leads in terms of job creation. For instance, the shift from employment in agriculture to services can reflect the growth of productive jobs in the "modern" services sector, but can also indicate employment growth in lower value added services, where poor working conditions are often pervasive. This is especially the case for many developing and emerging countries, where the early dynamics of structural transformation see workers moving from rural to urban areas to relocate into "traditional" low-productivity services sectors, such as the retail trade, often as informal own-account workers or casual workers. At the same time, structural transformation can indirectly affect working conditions by fostering growth in some economic activities with spillover effects on the informal economy (Srivastava, 2016).

In developed countries, certain patterns of structural change can lead to higher shares of temporary and part-time employment, informality and low-productivity jobs, and, as such, require attention. For instance, many developed countries are seeing employment shift from manufacturing to services, where part-time employment is typically more prominent and often taken on involuntarily, due to the lack of full-time and permanent job opportunities. At the same time, the service sector is increasingly relying on new forms of employment, such as job sharing, on-call work and dependent self-employment. These emerging forms of employment, while potentially offering greater flexibility and autonomy than manufacturing jobs, can also be linked to the worsening of overall working conditions, since they are often characterized by a higher incidence of unconventional work patterns, higher work intensity, excessive working hours and limited or no access to social protection (ILO, 2016c).

These simultaneous developments have given rise to a debate about the correlation between shifts in employment by sector and changes in the characteristics and quality of the jobs that are being created. Therefore, in order to understand whether the projected changes in the sectoral composition of employment may have important implications for different forms of employment and working conditions, it is necessary to first analyse whether there are systematic differences in the incidence of forms of employment and working conditions across sectors.

Vulnerable and informal forms of employment are prevalent both in declining sectors (e.g. agriculture) and in growing sectors (e.g. market services)

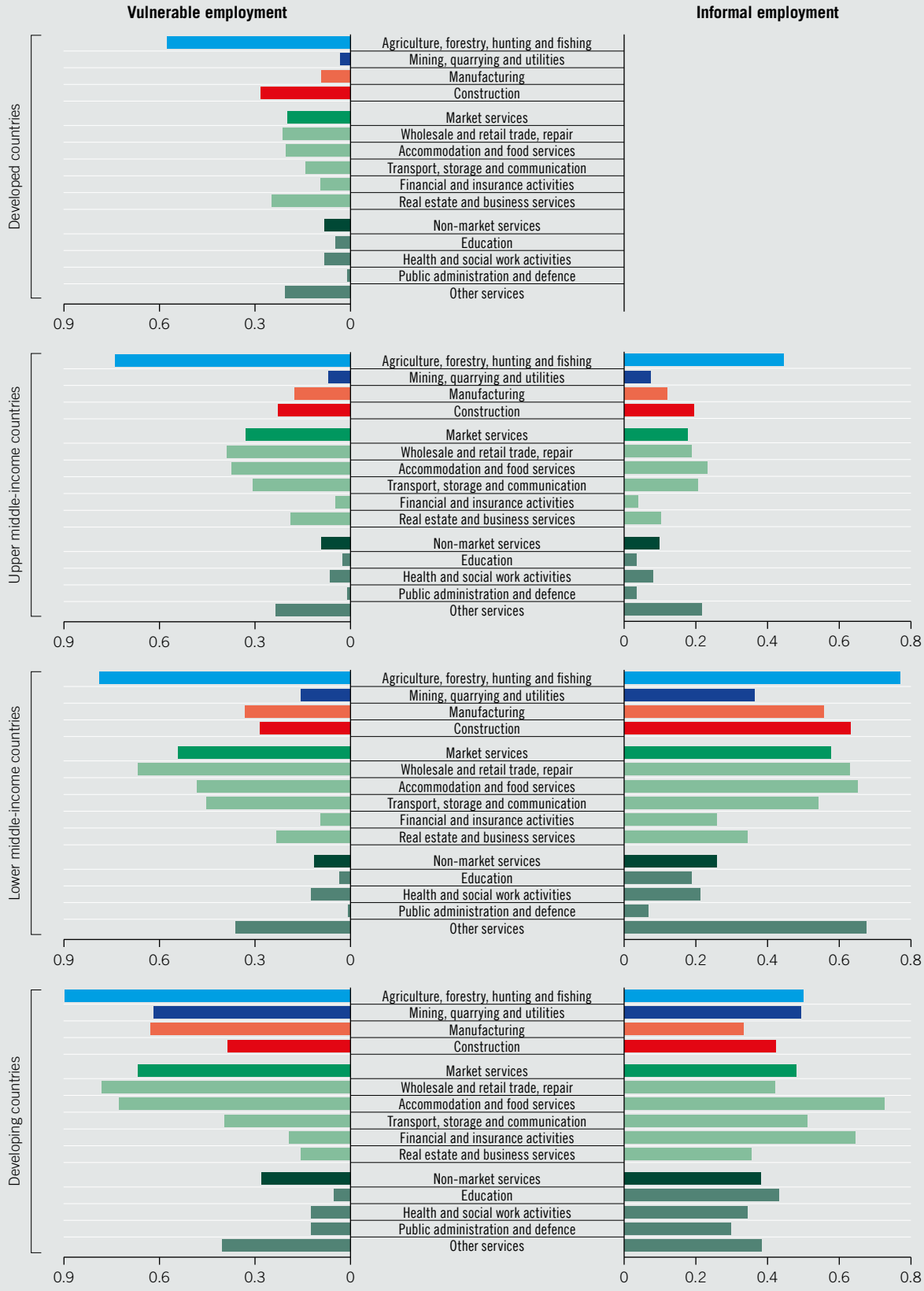
In general, the incidence of vulnerable employment is highest in the agriculture sector,[2] in which between 60 and 90 per cent of workers are in this form of employment (figure 3.3). Vulnerable employment is also relatively common in market services, especially in developing and lower middle-income countries. Within the market services sector, the incidence of vulnerable employment tends to be highest in wholesale and retail trade, followed by accommodation and food services, and transport, storage and communication. These sectors are characterized by high levels of fragmentation due to the prevalence of franchised enterprises and the use of outsourcing, practices which provide an enabling environment for the development of some forms of vulnerable employment, such as dependent self-employment (ILO, 2016c). Although this pattern in the sectoral distribution of vulnerable employment is common to all countries, the gap between sectors varies according to their level of development. For instance, in developing countries, the incidence of vulnerable employment is universally high across all sectors, even in manufacturing.

Across all levels of development, informal employment tends to be most common in agriculture and construction. On average, in developing and lower middle-income countries, informal employment in these two sectors accounts for more than 40 per cent of total employment. In these countries, the incidence of informal employment is also notably high in manufacturing and market services. In India, for example, the share of informal employment has risen within almost all manufacturing industries, partly as a result of labour market rigidities preventing modern manufacturing from creating employment opportunities (Moreno-Monroy, Pieters and Erumban, 2012). Within market services,

2. The 2015 General Survey, concerning the right of association and rural workers' organizations instruments, provides a global overview of the decent work challenges faced by agricultural workers, including information reported by ILO member States about the rural economies in their countries (ILO, 2015c).

Figure 3.3

Incidence of vulnerable and informal employment by sector and income group



Note: The incidence of each indicator is calculated as the ratio of the number of people in that form of employment to total employment in each sector. Informal employment includes all workers in unincorporated enterprises that produce, at least partly, for the market and who are not registered (i.e. workers in the informal sector) and persons employed outside the informal sector who are not subject to national labour legislation (i.e. employees not affiliated to social security schemes related to the job or not entitled to certain employment benefits, such as paid annual leave or paid sick leave). A full definition of informal employment is available at: http://www.ilo.org/ilostat-files/Documents/description_IFL_EN.pdf. The countries included in each income group average for each measure, as well as the year to which the data refer, are listed in Appendix D.

Source: ILO-STATISTICS – Microdata processing.

informal employment is particularly common in the accommodation and food services sector in all income groups, and in wholesale and retail trade in lower middle-income countries. In some Asian countries, such as Indonesia, informal employment is predominantly driven by the wholesale and retail trade sector, which employs mainly women and therefore constitutes an important source of vulnerable employment for female workers. Therefore – as further elaborated later in the chapter – a shift of employment from agriculture to these distributive services does not necessarily lead to a decrease in the incidence of informality.

The incidence of temporary employment is particularly high not only in agriculture but also in construction, sector in which the number of jobs is growing in developing and emerging countries

Temporary employment is particularly common in agriculture and construction in developing and middle-income countries (figure 3.4). Moreover, in developing countries, the incidence of temporary work also tends to be comparatively high in manufacturing and market services. This prevalence of temporary employment in market services is predominantly driven by the high incidence of temporary jobs in transport, storage and communication, accommodation and food services and wholesale and retail trade. In developing countries, temporary work also tends to be common in other services, which include primarily the activities of households as employers, but this is counterbalanced within non-market services by a lower presence in education, health activities and public administration. Temporary work is more equally distributed across sectors in high-income countries, where it accounts for between 10 and 35 per cent of all employment.

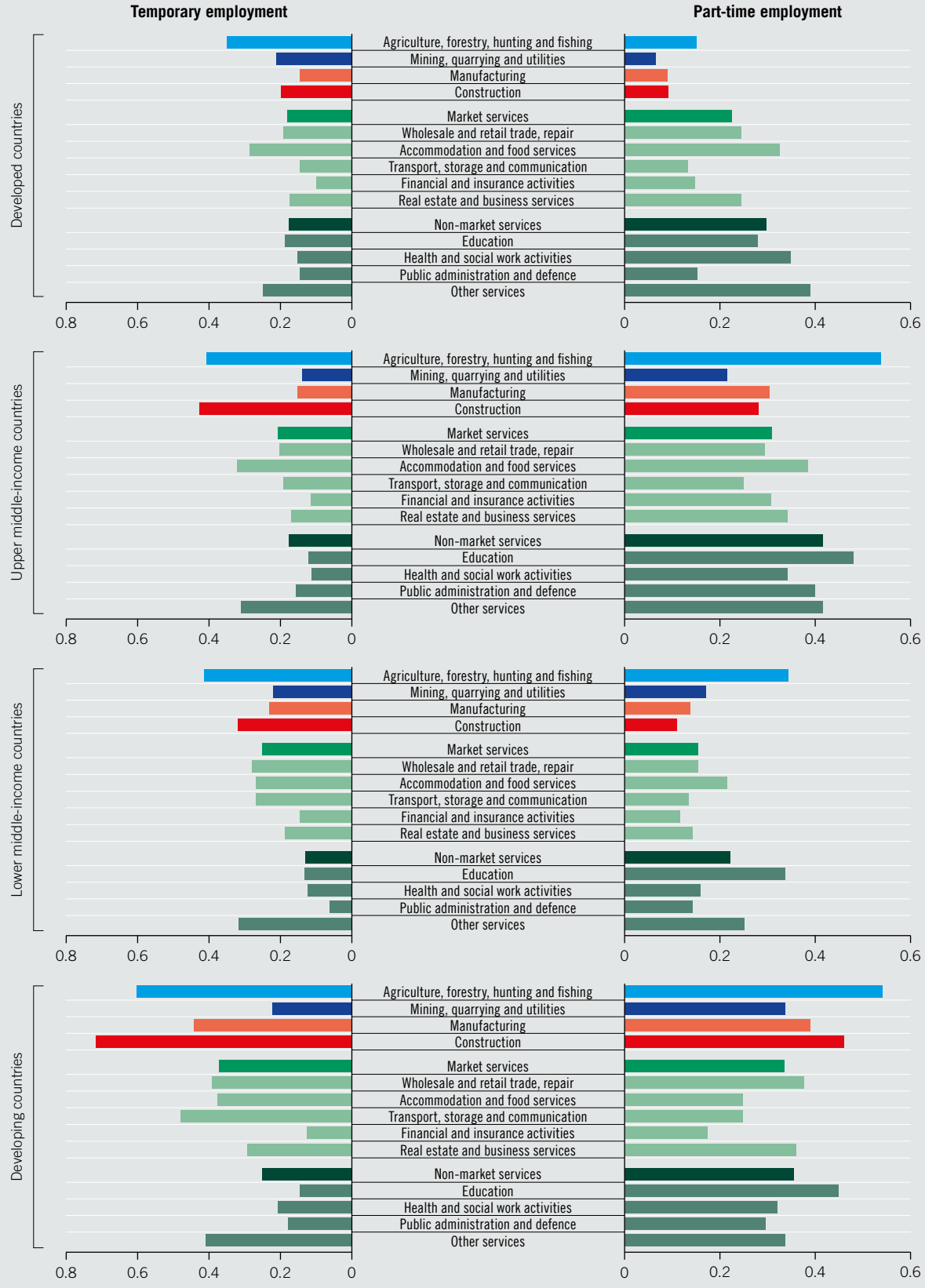
However, it is not easy to interpret this variation in the sectoral distribution of temporary employment across levels of development, since temporary employment involves different forms of work arrangements (i.e. not only fixed-term contracts, but also temporary agency, seasonal and casual work), the incidence of which may differ across countries. For instance, in some Asian countries such as China, Viet Nam, Bangladesh and the Philippines, the expansion of the services sectors, coupled with the proliferation of global supply chains and reforms that liberalized the labour markets, gave rise to the spread of temporary work in the region (ILO, 2016c).

Part-time work tends to be common in agriculture and education, especially in developing and emerging countries

In contrast to temporary employment, the incidence of part-time work is more equally distributed across sectors, especially in developing countries. In these countries, part-time work appears to be a common form of work arrangement in all sectors, but is especially prevalent in agriculture and non-market services where, on average, more than 50 and 35 per cent of workers, respectively, have a part-time job (figure 3.4). The high incidence within non-market services is mainly driven by the education sector, where part-time work accounts for 45 per cent of all jobs. Although the overall incidence of part-time employment decreases as the level of development increases, the incidence of part-time employment in education, and also in the agricultural sector, remains relatively high for all levels of development. In both lower and upper middle-income countries, part-time jobs account for around 40 per cent of total employment in education, and more than 35 per cent of all jobs in agriculture. In developed countries, part-time work is also relatively common in other non-market services, such as health and social work activities, as well as in some market services, such as accommodation and food services.

Figure 3.4

Incidence of temporary and part-time employment by sector and income group



Note: The incidence of part-time employment is calculated as the ratio of the number of people in part-time work to total employment in each sector. The incidence rate of temporary employment uses total employees as the reference population. The countries included in each income group average for each measure, as well as the year to which the data refer, are listed in Appendix D.

Source: ILO-STATISTICS – Microdata processing.

The incidence of unfavourable working conditions is higher in sectors where vulnerable and temporary employment are more prevalent

High incidence of vulnerable, informal and part-time employment very often involves poor working conditions. Therefore, it is interesting to analyse how working conditions vary across sectors and, in particular, whether certain employment arrangements are associated with unfavourable working conditions, such as excessive working hours and time-related underemployment.[3]

Analysis shows that there are, indeed, significant differences in the probability of an individual working an excessive number of hours in each sector across levels of development.[4] While, in developing and emerging countries, the prevalence of jobs involving excessive working hours is highest in market services, construction and manufacturing, in developed countries the agricultural sector stands out as having the highest proportion of workers performing an excessive number of working hours (figure 3.5). Within the market services sectors in developing and middle-income countries, the share of people working more than 48 hours per week is particularly high in transport, storage and communication, accommodation and food services and wholesale and retail trade, but it is also significant in real estate and business services, and in financial activities, especially in developing countries. These results seem consistent with available data on the incidence of different forms of employment across sectors. More specifically, vulnerable employment is much more prevalent in the agriculture and market services sectors, and there is evidence that vulnerable workers typically work more hours than their counterparts in other forms of employment (Fashoyin et al., 2013).

The high incidence of time-related underemployment in certain sectors provides a good indicator of the quality of part-time jobs on offer and the efficiency of the country's labour market in matching workers' preferences with employers' demands. In middle-income and developed countries, the proportion of workers working fewer hours than they would like to is highest in other services, represented mainly by domestic work (figure 3.5), while remaining high in the agricultural and construction sector in developing countries. Additionally, in developed countries, a high share of workers reporting a situation of time-related underemployment is often found in the services sector, notably in accommodation and food services. These sectoral trends in the prevalence of underemployment are highly correlated with the incidence of temporary employment. Indeed, several studies find that casual workers or employees with a fixed-term contract have a higher probability of being in time-related underemployment (see, e.g., Kjeldstad and Nymoen, 2010).

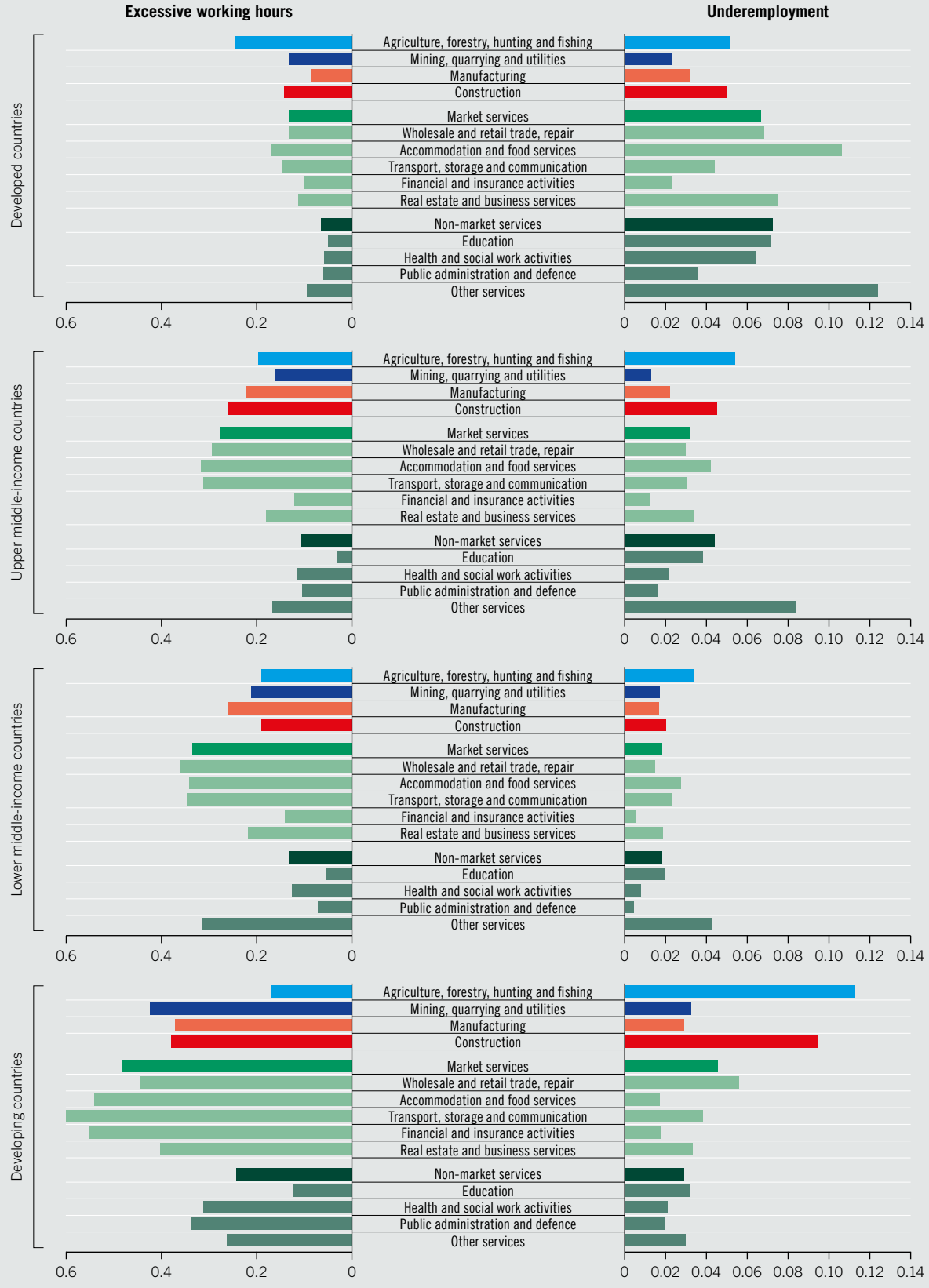
In addition to the type of output that a sector produces, many other sector-specific characteristics, such as the portion of female employment or the average size of firms active in the sector, may play a role in determining working conditions and types of employment at the sectoral level. For instance, an increasing share of employment in small and medium-sized enterprises (SMEs) among all formal employment is related to a decreasing gap in working poverty rates between women and men (box 3.1).

3. Workers are subject to excessive working hours when they work more than 48 hours per week. Workers are subject to time-related underemployment when they are willing and available to increase their working time and are working fewer hours than a specified threshold. For further information, see http://www.ilo.org/ilostat-files/Documents/description_TRU_EN.pdf.

4. See the 2017 General Survey on working time for more detailed information on trends and practices related to working-time arrangements in several countries (ILO, 2017g).

Figure 3.5

Incidence of different working conditions by sector and income group



Notes: The incidence of each indicator is calculated as the ratio of the number of people experiencing each type of working condition to total employment in each sector. The countries included in each income group average for each indicator, as well as the year to which the data refer, are listed in Appendix D.

Source: ILO-STATISTICS – Microdata processing.

Box 3.1

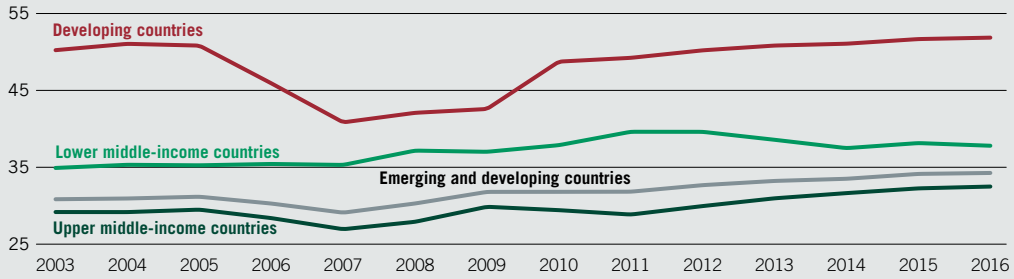
Do firms matter? SMEs and the working poverty gender gap

Over the past few years, the share of total employment in SMEs has been growing, from 31.2 per cent in 2003 to 34.8 per cent in 2016 (ILO, 2017f), with some important differences across countries at various stages of development (figure 3.6). In its 2017 *World Employment and Social Outlook: Sustainable enterprises and jobs* report, the ILO has shown that this development appears to be beneficial for women's labour market outcomes. This is because formal SMEs – i.e. those with between five and 99 employees – are found to be more frequently managed by a woman as top manager than larger firms. SMEs are also found to employ more women in their full-time permanent workforce compared to larger firms, at least in most of the world's regions (ibid.). Meanwhile, SMEs often provide the entry point for women into formal sector employment, suggesting that a strong SME presence will contribute to improving labour market outcomes for women, thus narrowing gender disparities. New analysis does indeed show that emerging and developing countries experiencing an increasing share of formal employment in SMEs are more successful in reducing the working poverty gender gap. In particular, results show that in countries where employment in SMEs has been thriving in the period from 2003 to 2016, working poverty rates among women have become lower, relative to the corresponding rates for men (figure 3.7). This result is also confirmed when undertaking a more formal regression analysis that relates the working poverty gender gap to the share of SME employment. The analysis aims to isolate the impact of the SME employment share by controlling for several variables that might have an equal impact on the working poverty gender gap, such as cultural or socio-economic differences across countries, region-specific trends, country-specific business cycle effects, a country's level of economic development and the sectoral structure of the economy.[1] Based on the regression analysis, an increase in the share of SME employment by 1 percentage point from one year to another year can be associated with a reduction in the difference between the female and male working poverty rate of, on average, 0.03 percentage points.

[1] *Results are based on an OLS regression with country fixed effects. The dependent variable is the difference between female and male working poverty rates and the main explanatory variable of interest is the share of SME employment. Control variables are: GDP growth, the logarithm of GDP per capita, the manufacturing share in total value added and region-specific time fixed effects. The coefficient is statistically significant at the 5 per cent level, based on standard errors clustered at the country level.*

Figure 3.6

SME employment share by country income group, 2003–16 (percentages)



Note: SME employment share refers to the share of full-time employees in SMEs which have between five and 99 employees within the formal private sector. Figures are based on a sample of 115 emerging and developing countries for which estimates are available.

Source: ILO, 2017f; Viegelahn et al., forthcoming.

Figure 3.7

Average change in working poverty gender gap, 2003–16 (percentage points)

Note: The chart uses data for 113 countries. The gender working poverty gap is the difference between the female and the male working poverty rate, referring to the respective percentage of female and male workers that live on less than US$3.10 per day in purchasing power terms (PPP). The SME employment share refers to the share of full-time employees in SMEs within the formal private sector.

Source: ILO calculations based on ILO Trends Econometric Models, November 2017; Viegelahn et al., forthcoming.

Projected change in employment conditions due to sectoral employment trends

Given the strong sectoral variations in employment patterns and working conditions, it is important to examine how the projected sectoral shifts (see figure 3.1) would impact the overall quality of employment in a given country. Figure 3.8 shows the degree to which employment shifts across sectors would contribute to the overall change in the incidence of different forms of employment between 2017 and 2025, assuming that these remain unchanged within each sector (see box 3.2). When the incidence of a certain form of employment is larger within the sector with falling employment than in the sector with increasing employment, then the average incidence of that form of employment in the economy will fall, represented by the total effect in figure 3.8.

Box 3.2

Estimating the impact of sectoral employment change on employment conditions

The analysis in this section estimates the impact of between-sector employment reallocation on employment indicators using a shift-share analysis. Importantly, such an analysis does not provide a forecast of the overall projected change in an indicator, since the incidence of a certain indicator within a sector is assumed to be constant while many drivers can change it. For a shift-share analysis, the contribution of a certain sector to the change in the economy-wide incidence of an employment indicator (I_T) is a function of the incidence of the indicator in the sector (I_s), the employment share of that sector in the total economy (S_s), and the employment growth differential between the sector (g_s) and the overall economy (g_T) over the timeframe of the analysis (2017–25). The total change in the incidence is the sum of the contributions over all sectors S, represented by the formula

$$\Delta I_T = \sum_{s=1}^{S} I_s S_s \left(\frac{g_s - g_T}{1 + g_T} \right)$$

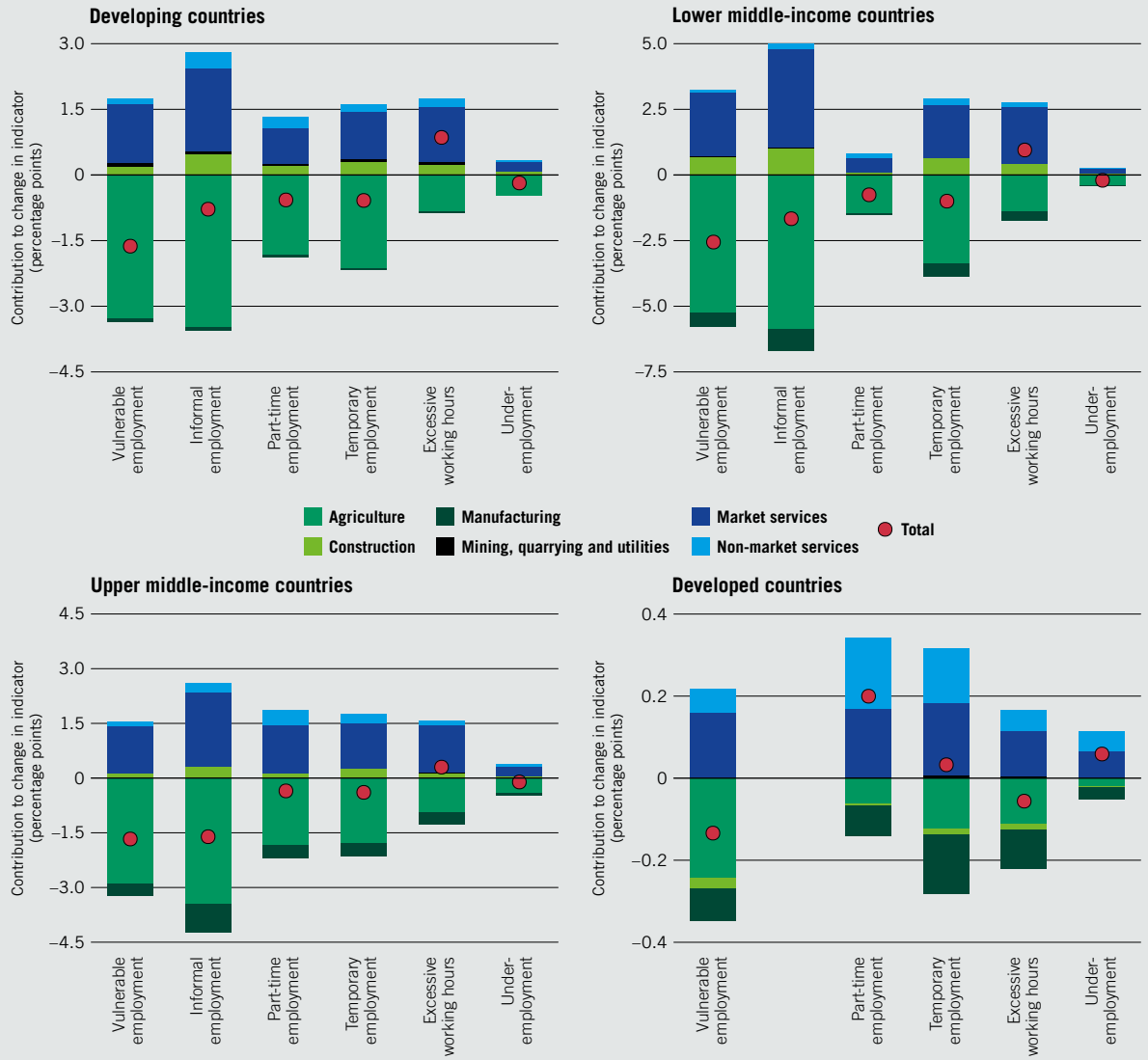
Both the employment shares and the projected growth differential between the sectoral and aggregate growth are derived from ILO Trends Econometric Models, November 2017, for 189 countries. The incidence of employment indicators within sectors is derived from the ILO Department of Statistics microdata processing. Appendix D lists the available indicators and countries. Missing data for employment indicators are imputed at the unweighted mean of the income group. Mean imputation keeps the impact of imputed data on the group aggregate limited, while at the same time muting the potentially distorting influence of very large countries with available data.

Employment shifts out of agriculture are expected to reduce the average incidence of vulnerable employment and informality

Due to the high incidence of vulnerable employment and informality in the agricultural sector, the projected shift of employment into other sectors, first and foremost market services (see figure 3.2), would be expected to reduce rates of informality and vulnerable employment across all income groups (figure 3.8). In fact, the share of vulnerable employment could fall by up to 3 percentage points and informality by up to 2 percentage points in lower middle-income countries due to structural change. However, the prevalence of vulnerable employment and informality in some market services sectors implies that employment shifts towards these sectors have a rather limited impact on the overall incidence of these types of employment. For instance, in developing countries, the rate of informality in the accommodation and food services sector is, on average, even higher than in the agriculture sector, so that structural transformation of that kind would increase the economy-wide incidence of informality. Furthermore, the incidence of vulnerable and informal employment in agriculture will not decline as a result of the projected process of structural transformation unless further efforts are made to raise agricultural productivity and improve working conditions in the sector.

Figure 3.8

Impact of sectoral employment change on employment indicators, 2017–25



Note: The figure presents the change in the total incidence of employment indicators due to employment changes between the sectors for the period 2017–25. The methodological note is given in box 3.2.

Source: ILO calculations based on ILO Trends Econometric Models, November 2017 and ILO Department of Statistics microdata processing.

Part-time work could increase in developed countries as a result of growing employment shares in the service sector

The analysis provides a similar picture for part-time and temporary employment. In developing and lower middle-income countries, sectoral employment shifts are projected to result in a somewhat lower incidence of these types of employment, while in upper middle-income countries the impact is neutral. In developed countries, on the other hand, the shift from manufacturing employment towards market and non-market services could result in an increase in part-time employment, whose incidence is considerably higher in the services sectors (see figure 3.4).

Excessive working hours and time-related underemployment are direct indicators of work quality. In the case of the former, sectoral shifts are likely to increase their incidence in developing and lower middle-income countries, as market services sectors tend to have a higher incidence of excessive working hours than the agricultural sector. In upper middle-income countries, and even more markedly in developed countries, the fall in manufacturing employment, which is also subject to excessive working hours (see figure 3.5), counters this trend. Finally, the incidence of time-related underemployment is generally fairly low, meaning that the impact of sectoral shifts is small across all income groups. Nevertheless, time-related underemployment is projected to increase somewhat in developed countries as its incidence in market services is higher than in agriculture and manufacturing.

Structural transformation on its own is no guarantee of improved employment conditions

It is widely believed that the traditional path of structural transformation, whereby employment first shifts away from agriculture to low value added manufacturing, subsequently relocating to more sophisticated manufacturing and services as countries move to higher stages of development, has the potential to reduce the incidence of vulnerable and informal employment, while improving overall working conditions. However, the current wave of structural transformation differs considerably from past experiences, specifically in that it does not involve significant growth in industry employment and is largely led by employment shifting from agriculture to service sectors. The above analysis shows that this "premature deindustrialization" is likely to continue in the near future, leading to a slower pace of reduction in informal and vulnerable employment than has been observed in the past.

At the same time, the projected pattern of structural transformation does not bode well for significant improvements in average working conditions, which remain difficult in certain market services to which the bulk of agricultural employment is expected to relocate. In emerging and developing countries internal migrants often cannot find quality employment in formal enterprises and have to take up a low-quality, informal activity on their own account in the service sector. Overall, this translates into a need for strong policy efforts to promote firms' formalization and boost job quality and productivity growth in the service sector as important conditions for securing decent work outcomes of structural transformation.

4 Population ageing and future labour market challenges

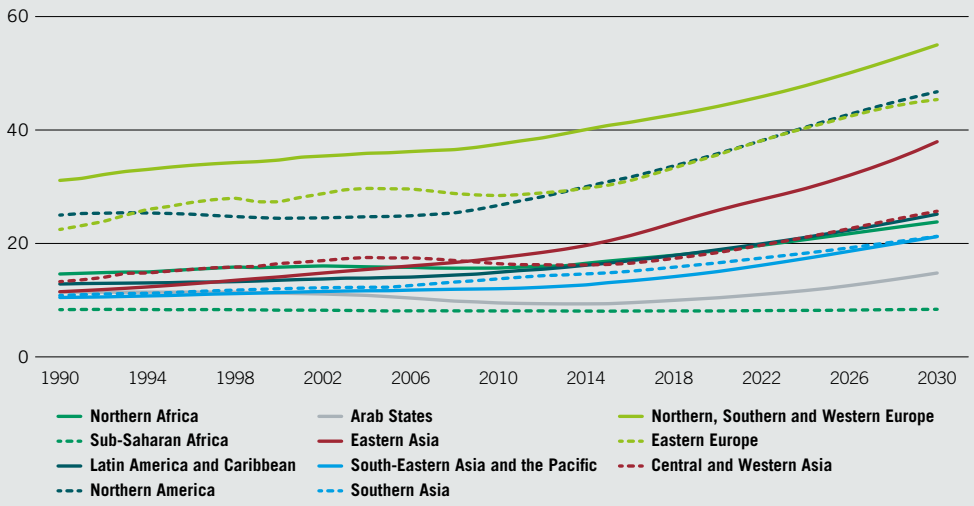
As the labour force growth decelerates, the number of potential retirees per active person is expected to increase markedly

The world's population is expected to grow by over 13 per cent by 2030, and to expand by an additional 14 per cent in the following 20 years, surpassing 9.7 billion by 2050. While this anticipated expansion appears impressive, it falls short in comparison to the pace of population growth observed in the past decades. For instance, the global population is estimated to have expanded by over 65 per cent (or 3.1 billion) between 1980 and 2017, whereas it is expected to grow by around 35 per cent (or 2.2 billion) by 2050. The most immediate consequence of the anticipated slowdown in world population growth is that the proportion of people aged 65 and over in the total population will increase substantially over the coming decades. Globally, people aged 65 and above are projected to account for 11.7 per cent of total population in 2030, and 15.8 per cent in 2050, up from 9.3 per cent in 2017.

As a result, the old-age economic dependency ratio – i.e. the number of people aged 65 and over as a percentage of the total labour force – will increase in many parts of the world (figure 4.1). This impending challenge is particularly significant for the regions of Europe, Northern America and Eastern Asia. For instance, by 2030, the number of people aged 65 and over in the region of Northern,

Figure 4.1

Old-age economic dependency ratio, 1990–2030 (percentages)



Note: The old-age economic dependency ratio is the ratio between the elderly population (aged 65+) and people in the labour force.

Source: ILOSTAT, ILO Labour Force Estimates and Projections, 2017; UN World Population Prospects, 2017 Revision.

Box 4.1

The impact of population ageing on the economy

A slowdown in working-age population growth could cause lower per capita growth

A slowdown in labour force growth lowers the requisite growth in the capital stock, and hence investment, which is necessary to stabilize the capital–labour ratio. This can inhibit the growth of labour productivity and, principally, total factor productivity (IMF, 2017a; Maestas et al., 2016).[1] However, the recent developments in automation represent a strong challenge to the assumption of fixed capital–labour ratio, having brought both labour-replacing and labour-enhancing technologies to the forefront of labour scarcity challenges and productivity solutions (Frey and Osborne, 2017; Autor, Levy and Murnane, 2003). Alternatively, in a cross-country study, Acemoglu and Restrepo (2017) demonstrate that there is a weak negative relationship between an ageing population and GDP per capita, indicating the role of technological changes in responding to demographic shifts: for instance, countries facing rapid ageing have recently led the way in the adoption of automation technology – specifically, industrial robots. Nevertheless, a falling share of the working-age population requires a boost in labour productivity in order to stabilize per capita growth, particularly given the current low growth of labour productivity (United Nations, 2017a).

Retirement saving has a major impact on financial markets

Rising life expectancy necessitates larger accumulated retirement assets per person than in previous generations. This factor, combined with the relative imbalance between current and future retirees, implies that saving inflows into the financial markets by the current working generation are larger than saving outflows by retirees. If these savings were matched by fixed investment, then the current financial market equilibrium, as well as the source of future pension provision, could be ensured. However, current fixed investment demand is very low (see box 1.1), while there is evidence that those retirees not classified as poor continue to save (Börsch-Supan, 2003). Consequently, retirement savings in times of population ageing exert a downward pressure on real interest rates when not matched by investment.

Public finances need to adjust to population ageing

Population ageing necessitates large shifts of public spending into health care and pension payments. The rise in public expenditure (on pensions and health care) is expected to increase as a percentage of GDP in more developed countries by 5 percentage points by 2050 and 9 percentage points by 2100, assuming that no offsetting policy changes are implemented (Clements et al., 2015). The European Commission also forecasts a change in public expenditure of between 2.5 and 6.8 percentage points of GDP in the EU, where the demographic challenge is particularly acute (EC, 2015). The increase in public health spending over the period 2015–2050 is equivalent to 57 per cent of GDP today (Clements et al., 2015). The old-age economic dependency ratio (figure 4.1) indicates that governments will have a pronounced fiscal responsibility to support an older population, a task that many governments are currently unprepared for due to the large and widespread deficit in the pension system and existing fiscal constraints. This pronounced shift and increase in spending is likely to trigger further fiscal consolidation in other important areas of spending/investment, which would have additional economic and social consequences unless new sources of financing can be found. The figures involved are alarming, given the current public debt crisis in many developed countries and the rising challenge of reducing debt-to-GDP ratios while facing lower growth rates (Arellano, Atkeson and Wright, 2016; Ghosh at al., 2013).

[1] *The ageing of the workforce in the Euro Area could lower TFP growth by around 0.2 percentage points each year between 2014 and 2035.*

Southern and Western Europe, will be equivalent to 55 per cent of its labour force, up from 42 per cent in 2017. The issue of high old-age economic dependency ratios arises not only in high-income regions, but also in key emerging markets, such as China and the Russian Federation, where the labour force is expected to drop substantially while the elderly population is expected to increase rapidly. Nevertheless, some regions, such as Africa and Southern Asia, still have very large young populations entering the labour force. Their major challenge in the medium term will lie in creating enough decent work opportunities for the new entrants.

Many countries are enhancing incentives to encourage working at an older age to alleviate the challenges of population ageing, while continuing to benefit from the experience and skills that older generations possess. However, it is important to keep in mind that, for a large share of the elderly, especially in emerging and developing countries, continuing to work after retirement age is not a choice, but rather the only way to escape poverty since they are often not covered by any type of pension or social protection scheme. This is particularly the case in many low-income countries, where less than 20 per cent of older persons over statutory retirement age receive a pension (ILO, 2017h).

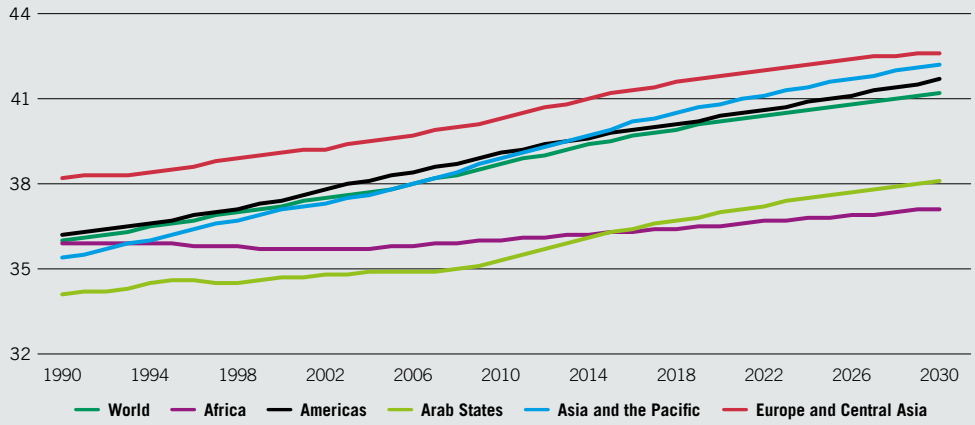
In the absence of policy levers anticipating these demographic changes, rapid population ageing could lead to negative shocks to both the economy and social conditions. In fact, population ageing has been considered to be a significant factor in the headwind opposing efforts to overcome secular stagnation in the past decades (Ferrero, Gross and Neri, 2017; Cervellati, Sunde and Zimmermann, 2017; Gagnon, Johannsen and Lopez-Salido, 2016; Carvalho, Ferrero and Nechio, 2016). There are three main ways in which an ageing population can affect the economy: (i) slowdown in labour force growth; (ii) changing patterns of savings and consumption; and (iii) pressures on public social expenditures (see box 4.1).

Meanwhile, the average age of those in the labour force is set to gradually increase, with important labour market implications

Another important implication of population ageing is that the average age of those in the labour force is expected to gradually increase. At the global level, the average age of people participating in the labour force is projected to rise from nearly 40 in 2017 to slightly over 41 in 2030. The increase is expected to be steeper in Asia and the Pacific, where the average age of the workforce is expected to climb from 40.3 to 42.3 in the years to 2030, as well as in Europe and Central Asia, where it should reach 42.6, up from 41.4 in 2017. However, other regions, notably the Arab States and Northern America, will also see a relatively rapid increase in the average age of the labour force (figure 4.2).

Figure 4.2

Average age of the labour force, 1990–2030 (years)



Note: The average age of the labour force is obtained through the following formula $\sum_{i \in Age_Band} Average_Age_i \frac{LF_i}{\sum_{i \in Age_Band} LF_i}$ *which aggregates the average age of each five-year age band (i.e. 15–19, 20–24, 25–29, 30–34, 35–39, 40–44, 45–49, 50–54, 55–59, 60–64, 65+) taking into account the share of the labour force represented by each band. For the age bands 15–19, 60–64 and 65+, the average age across six countries (namely Brazil, India, South Africa, the United Republic of Tanzania, the United States and the United Kingdom), with more detailed age bands than those listed above, are used. For the remaining age bvands, a uniform distribution of labour force participation rates across ages is assumed, so that the average age of each band corresponds to the mid-point between the two age extremes of the band.*

Source: ILOSTAT, ILO Labour Force Estimates and Projections, 2017.

At first sight, the anticipated increase in the average age of the workforce may seem modest, and only marginally relevant to labour market dynamics. Yet, an increasingly ageing workforce may in itself have a number of repercussions for labour markets, which go beyond the sustainability challenge due to the growing pool of retirees. First, the higher average age of people in the labour force partly reflects the fact that older workers (55–64 years old) will represent a growing share of people employed or looking for a job. The labour market situation of older workers often differs from those of prime-age (25–54) and younger workers (15–24). For example, older workers are typically less likely to be unemployed than young workers, but, once they become unemployed, it takes longer on average for them to return to work (Heywood and Siebert, 2009). This creates the potential for them to become discouraged and leave the labour force. Moreover, older workers' participation in both formal education and, more importantly, on-the-job training, is found to be considerably lower than that of younger workers, mainly because employers are more reluctant to incur training costs for workers who are expected to remain for a shorter period of time with their firms (ibid.). This further reduces the probability that older workers will change occupation or sector of activity (Hurd, 1996), which poses challenges in the face of continuing structural transformation processes (see Chapter 3). If these age-related differences in employability and skills development persist in the near future, the increase in the average age of people in the labour force might lead to a slower speed of labour market adjustments following economic shocks (Dixon, 2003). At the same time, an increasingly ageing workforce implies that the stock of available skills and human capital will become outdated in the face of continuing innovation, so potentially harming productivity growth. This negative effect might be only partially offset by the positive impact that higher levels of work experience may have on productivity (Disney, 1996).

Finally, a fuller assessment of the implications of labour force ageing needs to consider that, to the extent that older workers are less mobile across sectors and less able to adapt to emerging skills requirements, the increasing age of the workforce might result in higher numbers of older workers being forced to exit the labour market before reaching the statutory retirement age because they are unable to find suitable job opportunities. This risks putting further pressure on pension systems, which, as discussed in the next section, are already facing severe financial sustainability challenges in several countries. Therefore, the ageing of the labour force calls for greater efforts to maintain and update older workers' skills, with the aim of ensuring that they are able to shift sectors and occupations when structural changes alter the composition of jobs in the labour market. In this regard, it is particularly important that countries take prompt action to foster the employability of workers throughout their working lives, with a view to expanding their employment opportunities at an older age. Moreover, there is the potential to monitor and improve the working conditions of workers in many sectors (see Chapter 3) with the aim of reducing the probability that older workers in these sectors will exit the labour market due to work-related physical and mental health issues or poor work–life balance.

These dynamics pose the dual challenges of keeping retirees out of poverty and reversing inequalities while promoting decent work outcomes for those in the labour force

As a population ages into retirement, its livelihood is primarily afforded by pension income, family support, public transfers, and financial and real asset holdings. These main streams of income, and particularly pension income and public transfers, have become increasingly tied to macroeconomic conditions and the volatility of financial markets, leading to an increased threat of inequality and old-age poverty. For instance, a decline in real labour incomes, coupled with weakened social safety nets, has contributed to income fragility in old age, lessening people's ability to save for retirement and reducing benefit provision by pensions systems which are undergoing reform. Many pension systems today are faced with the challenge of reforming and maintaining a system that is adequate and sustainable to cover both current and future retirees. Guaranteeing adequate access to pension coverage presents a serious challenge today, which is likely to be significantly exacerbated in light of the fast population ageing described above. In fact, globally, close to one-third of all people over pensionable age do not have access to a pension (ILO, 2017h) and, among those who do, 52 per cent are faced with inadequate coverage (ILO, 2014b). Moreover, only slightly more than half of older persons above statutory pensionable age (51.5 per cent) receive an old-age pension (i.e. periodic cash benefits) and the proportion falls to 45.6 per cent if China is excluded (ibid.).

In addition, it is important to bear in mind that old-age income is closely tied to existing inequalities in both labour income and access to pension schemes. Globally, around 85 per cent of the working-age population (those aged 15–64 years) is covered by either contributory or non-contributory pension

Box 4.2

Boosting the care industry for the future of (decent) work

In the context of a large global shift towards an ageing population, long-term care needs are expected to rise rapidly. Throughout time and the world over, this care has predominantly been provided by relatives, mainly women, contributing a disproportionate share of the essential unpaid care provision for both children and adults. Yet, in a changing world of work, with younger women increasingly joining the labour force (ILO, 2017c), declining fertility rates, longer life expectancy and a rising old-age dependency ratio, the pertinent question arises as to who will provide this care. In fact, over half of all older persons have no access to long-term care (LTC) due to the lack of skilled LTC workers globally (ILO, 2017h).

Although it is anticipated that new health-related technologies will play a crucial role in adjusting to future care demands, the world will still need everyday care for children and the elderly, which is expected to remain a "human" job. However, with more able-bodied adults in the workforce, there are fewer family members available to undertake this care work. With an increasing number of the elderly living on their own, to fill the gaps in care provision more families are turning to public or private care services, including work provided by domestic workers. In fact, home-health and personal care provision are among the fastest growing fields in the labour market. According to the US Bureau of Labor Statistics, home-care occupations are projected to add more jobs than any other single occupation, with an additional 633,100 new jobs expected to be created by 2024.

This structural shift towards increased care work offers an untapped opportunity for the future of work; however, significant challenges remain in the attempt to leverage this shift towards a future of decent work. First, care work is rarely valued, and is typically invisible. It was not until 2013 that unpaid care work became formally recognized under a new classification of forms of work adopted by the 19th International Conference of Labour Statisticians. Moreover, care professions have a history of inadequate regulation and are often subject to poor working conditions in terms of pay and excessive hours of work. And, given care work's invisible nature, these workers typically lack the basic protections, such as sick leave, that are afforded to other sorts of workers. Second, women, especially those from migrant and minority communities, often bear the brunt of unpaid care work. In many ways, these women are subsidizing public care at the cost of their employment, time and welfare. Finally, the disproportionate care demands made on women are often at odds with women's preferences and desire to work in a paid job (Gallup and ILO, 2017). In fact, globally, the care deficit is currently filled by unpaid "voluntary" care workers, estimated at 57 million persons, many of whom are women that have given up formal job opportunities to provide this care (ILO, 2017h). Hence, both the deficit in care and the poor employment conditions within the industry are a significant cause for concern for both the future of work and for welfare in the future. After all, the care economy is the social backbone for each and every human life in the world.

Consequently, tackling this issue will more than doubly impact the labour market outcomes for women, decent work for all and long-term quality care for a population with increasing needs. These goals can only be achieved through a multidimensional approach to overcome the gender discrimination that undervalues the work women do, both paid and unpaid. This issue is inextricably linked to the challenge of addressing the world's increasing care deficit. Moreover, in order to be effective, policy responses need to address the root causes of gender segregation and diversify employment opportunities for women and men, loosening the restraints on gendered roles in the workplace. Steps must also be taken to ensure that care work itself is decent. This process begins, among other measures, by implementing minimum wages and social protections for all, especially care workers, which will help to ensure that everyone receives equal pay for work of equal value.

schemes and is therefore potentially eligible for an old-age pension after reaching retirement age (ILO, 2017h). However, the legal coverage of the pension system is considerably lower in some regions, such as the Arab States and sub-Saharan Africa, where it remains at around 50 per cent of the working-age population. Moreover, those in poor-quality jobs, with lower incomes and shorter or interrupted employment careers are inevitably more likely to be at a disadvantage in building up pension entitlements within a contributory system. This disadvantage is particularly acute for women, as they often face shortened or interrupted employment careers as a result of taking on a disproportionate share of family responsibilities while also facing a higher risk of working in precarious and informal employment. As a result, these gaps in the labour market for women significantly affect both their wages and access to the pension system (ILO, 2017c; ILO, 2017h). Overall, current labour market disparities and uneven access to social security are likely to exacerbate old-age inequalities, not only in income, but also in access to health care and housing (OECD, 2017).

While the most pressing challenge presented by population ageing is related to ensuring sufficient income in old age, the actively working population is also affected by these issues. In theory, a shrinking working-age population could lead to labour scarcity and should, on average, increase the price of labour, and hence wages, especially when labour productivity is supplemented by robots. However, not all sectors will experience large productivity gains when faced with a technological skill bias that is likely to increase inequality in certain sectors. Furthermore, the changing consumption patterns that accompany an ageing population will also cause a sectoral reallocation of labour, to the care sector, among others (see Chapter 3), which will require policy actions to ensure that workers have the right skills to benefit from the emerging employment opportunities (box 4.2).

Ensuring decent working lives and narrowing inequalities is key to addressing the challenges of an ageing population

Ensuring decent life into old age will require important policy combinations that not only meet the challenges of an ageing population through adequate pension coverage and long-term care provision (see box 4.2), but also tackle the very structural factors that have made old-age poverty and inequality an increasing reality. This can be broadly achieved through a comprehensive policy framework that ensures decent living conditions in all stages of life by addressing decent work deficits, formalizing the informal economy, ensuring adequate social protection and fiscal sustainability, and narrowing inequalities (ILO, 2013b).

Most importantly, ensuring decent working conditions today will boost decent living conditions into old age. Minimum wage policies, for instance, will have long-term effects in reducing old-age poverty and inequality by tackling issues of poverty and gender discrimination today. Higher wages will be an important factor in shaping better employment outcomes and reducing future inequalities in income. Given that old-age poverty is inherently tied to existing labour market inequalities, targeting workers with inferior working conditions and incomes will be a vital element in ensuring inclusivity and adequacy in pension coverage. First, transitioning workers from the informal to the formal economy will be critical to ensure income security and social protection coverage for vulnerable groups. Second, reducing gender inequalities in the labour market will generate significant benefits in preventing old-age poverty among women. For instance, policies that credit pension accounts during parental leave and that facilitate a more equal share of care responsibilities between men and women will have long-term benefits by reducing gaps in the labour market and in social protection (ILO, 2014b). Moreover, transforming existing pension systems into a universal social protection floor guarantee would ensure inclusive coverage of all older persons and provide income security (ILO, 2017h).

Finally, endowing an ageing labour force with the capabilities to keep up with the pace of innovation and transformation in the labour market will be an important challenge and opportunity for the future of work. Life-long learning efforts will play an important role in helping to promote workers' employability at all ages and decrease the risk of labour market detachment and early retirement, which would add further pressure to pension systems. For instance, targeted efforts to encourage older workers' participation in training and skills updating schemes would benefit an expanding ageing share of the workforce.

Appendix A. Country groupings by region and income level

Africa

Northern Africa
Algeria
Egypt
Libya
Morocco
Sudan
Tunisia
Western Sahara

Sub-Saharan Africa
Angola
Benin
Botswana
Burkina Faso
Burundi
Cameroon
Cabo Verde
Central African Republic
Chad
Comoros
Congo
Congo, Democratic Republic of the
Côte d'Ivoire
Djibouti
Equatorial Guinea
Eritrea
Ethiopia
Gabon
The Gambia
Ghana
Guinea
Guinea-Bissau
Kenya
Lesotho
Liberia
Madagascar
Malawi
Mali
Mauritania
Mauritius
Mozambique
Namibia
Niger
Nigeria
Rwanda
Sao Tome and Principe
Senegal
Seychelles
Sierra Leone
Somalia
South Africa
South Sudan
Swaziland
Tanzania, United Republic of
Togo
Uganda
Zambia
Zimbabwe

Americas

Latin America and the Caribbean
Antigua and Barbuda
Argentina
Bahamas
Barbados
Belize
Bolivia, Plurinational State of
Brazil
Chile
Colombia
Costa Rica
Cuba
Dominican Republic
Ecuador
El Salvador
Grenada
Guatemala
Guyana
Haiti
Honduras
Jamaica
Mexico
Nicaragua
Panama
Paraguay
Peru
Puerto Rico
Saint Kitts and Nevis
Saint Lucia
Saint Vincent and the Grenadines
Suriname
Trinidad and Tobago
United States Virgin Islands
Uruguay
Venezuela, Bolivarian Republic of

Northern America
Canada
United States

Arab States
Bahrain
Iraq
Jordan
Kuwait
Lebanon
Occupied Palestinian Territory
Oman
Qatar
Saudi Arabia
Syrian Arab Republic
United Arab Emirates
Yemen

Asia and the Pacific

Eastern Asia
China
Hong Kong, China
Japan
Korea, Democratic People's Republic of
Korea, Republic of
Macau, China
Mongolia
Taiwan, China

South-Eastern Asia and the Pacific
Australia
Brunei Darussalam
Cambodia
Fiji
French Polynesia
Guam
Indonesia
Kiribati
Lao People's Democratic Republic
Malaysia
Marshall Islands
Micronesia, Federated States of
Myanmar
Nauru
New Caledonia
New Zealand
Palau
Papua New Guinea
Philippines
Samoa
Singapore
Solomon Islands
Thailand
Timor-Leste
Tonga
Tuvalu
Vanuatu
Viet Nam

Southern Asia
Afghanistan
Bangladesh
Bhutan
India
Iran, Islamic Republic of
Maldives
Nepal
Pakistan
Sri Lanka

Europe and Central Asia

Northern, Southern and Western Europe
Albania
Andorra
Austria
Belgium
Bosnia and Herzegovina
Channel Islands
Croatia
Denmark
Estonia
Finland
France
Germany
Greece
Iceland
Ireland
Italy
Latvia
Liechtenstein
Lithuania
Luxembourg
Macedonia, the former Yugoslav Republic of
Malta
Monaco
Montenegro
Netherlands
Norway
Portugal
Serbia
Slovenia
Spain
Sweden
Switzerland
United Kingdom

Eastern Europe
Belarus
Bulgaria
Czech Republic
Hungary
Moldova, Republic of
Poland
Romania
Russian Federation
Slovakia
Ukraine

Central and Western Asia
Armenia
Azerbaijan
Cyprus
Georgia
Israel
Kazakhstan
Kyrgyzstan
Tajikistan
Turkey
Turkmenistan
Uzbekistan

Developed countries

Andorra
Antigua and Barbuda
Australia
Austria
Bahamas
Bahrain
Barbados
Belgium
Brunei Darussalam
Canada
Channel Islands
Chile
Cyprus
Czech Republic
Denmark
Equatorial Guinea
Estonia
Finland
France
French Polynesia
Germany
Greece
Guam
Hong Kong, China
Hungary
Iceland
Ireland
Israel
Italy
Japan
Korea, Republic of
Kuwait
Latvia
Liechtenstein
Lithuania
Luxembourg
Macau, China
Malta
Monaco
Netherlands
New Caledonia
New Zealand
Norway
Oman
Poland
Portugal
Puerto Rico
Qatar
Russian Federation
Saint Kitts and Nevis
Saudi Arabia
Seychelles
Singapore
Slovakia
Slovenia
Spain
Sweden
Switzerland
Taiwan, China
Trinidad and Tobago
United Arab Emirates
United Kingdom
United States
United States Virgin Islands
Uruguay

Emerging countries (Upper-middle income)

Albania
Algeria
Argentina
Azerbaijan
Belarus
Belize
Bosnia and Herzegovina
Botswana
Brazil
Bulgaria
China
Colombia
Costa Rica
Croatia
Cuba
Dominican Republic
Ecuador
Fiji
Gabon
Grenada
Iran, Islamic Republic of
Iraq
Jamaica
Kazakhstan
Lebanon
Libya
Macedonia, the former Yugoslav Republic of
Malaysia
Maldives
Marshall Islands
Mauritius
Mexico
Mongolia
Montenegro
Namibia
Palau
Panama
Paraguay
Peru
Romania
Saint Lucia
Saint Vincent and the Grenadines
Serbia
South Africa
Suriname
Thailand
Tonga
Tunisia
Turkey
Turkmenistan
Tuvalu
Venezuela, Bolivarian Republic of

Emerging countries (Lower-middle income)

Angola
Armenia
Bangladesh
Bhutan
Bolivia, Plurinational State of
Cameroon
Cabo Verde
Congo
Côte d'Ivoire
Djibouti
Egypt
El Salvador
Georgia
Ghana
Guatemala
Guyana
Honduras
India
Indonesia
Jordan
Kenya
Kiribati
Kyrgyzstan
Lao People's Democratic Republic
Lesotho
Mauritania
Micronesia, Federated States of
Moldova, Republic of
Morocco
Myanmar
Nauru
Nicaragua
Nigeria
Occupied Palestinian Territory
Pakistan
Papua New Guinea
Philippines
Samoa
Sao Tome and Principe
Senegal
Solomon Islands
Sri Lanka
Sudan
Swaziland
Syrian Arab Republic
Tajikistan
Timor-Leste
Ukraine
Uzbekistan
Vanuatu
Viet Nam
Western Sahara
Yemen
Zambia

Developing countries

Afghanistan
Benin
Burkina Faso
Burundi
Cambodia
Central African Republic
Chad
Comoros
Congo, Democratic Republic of the
Eritrea
Ethiopia
The Gambia
Guinea
Guinea-Bissau
Haiti
Korea, Democratic People's Republic of
Liberia
Madagascar
Malawi
Mali
Mozambique
Nepal
Niger
Rwanda
Sierra Leone
Somalia
South Sudan
Tanzania, United Republic of
Togo
Uganda
Zimbabwe

Appendix B. Labour market estimates and projections

The source of all global and regional labour market estimates in this *World Employment and Social Outlook* report is the ILO's Trends Econometric Models (TEM), November 2017. The ILO has designed and actively maintains econometric models, which are used to produce estimates of labour market indicators in the countries and years for which country-reported data are unavailable. These allow the ILO to produce and analyse global and regional estimates of key labour market indicators and related trends.

The TEM is used to produce estimates and projections – disaggregated by age and sex as appropriate – of unemployment, employment and status in employment. The output of the model is a complete matrix of data for 189 countries. The country-level data can then be aggregated to produce regional and global estimates of labour market indicators, such as the unemployment rate and the employment-to-population ratio.

Prior to running the TEM, labour market information specialists in the Research Department, in cooperation with ILOSTAT and specialists in ILO field offices, evaluate existing country-reported data and select only those observations deemed sufficiently comparable across countries, using criteria including: (i) type of data source; (ii) geographic coverage; and (iii) age group coverage.

With regard to the first criterion, in order for data to be included in the model, they must be derived from either a labour force survey or a population census. National labour force surveys are generally similar across countries, and the data derived from these surveys are more readily comparable than data obtained from other sources. A strict preference is therefore given to labour force survey-based data in the selection process. However, many developing countries, which lack the resources to carry out a labour force survey, do report labour market information based on population censuses. Consequently, due to the need to balance the competing goals of data comparability and data coverage, some population census-based data are included in the model.

The second criterion is that only nationally representative (i.e. not prohibitively geographically limited) labour market indicators are included. Observations which correspond to only urban or only rural areas are not included, as large differences typically exist between rural and urban labour markets, and using only rural or urban data would not be consistent with benchmark data such as GDP.

The third criterion is that the age groups covered by the observed data must be sufficiently comparable across countries. Countries report labour market information for a variety of age groups and the age group selected can have an influence on the observed value of a given labour market indicator.

Apart from country-reported labour market information, the TEM uses the following benchmark files:

- United Nations World Population Prospects, 2017 Revision, for population estimates and projections;
- ILO Labour Force Estimates and Projections (LFEP), 2017 Revision, for labour force estimates and projections;
- IMF/World Bank data on GDP (PPP, per capita GDP and GDP growth rates) from the World Development Indicators and the World Economic Outlook database, October 2017;
- World Bank poverty estimates from the PovcalNet database.

Estimates of labour market indicators

The TEM produces estimates of unemployment rates to fill in missing values in the countries and years for which country-reported data are unavailable. Multivariate regressions are run separately for different regions in the world in which unemployment rates, broken down by age and sex (youth male, youth female, adult male, adult female), are regressed on GDP growth rates. Weights are used in the regressions to correct for biases that may result from the fact that countries which report unemployment rates tend to differ (in statistically important respects) from countries that do not report unemployment rates.[1]

1. For instance, if simple averages of unemployment rates in reporting countries in a given region were used to estimate the unemployment rate in that region, and the countries that do not report unemployment rates should happen to differ from reporting countries with respect to unemployment rates, without such a correction mechanism the resulting estimated regional unemployment rate would be biased. The "weighted least squares" approach adopted in the TEM corrects for this potential problem.

For 2017, a preliminary estimate is produced, using quarterly and monthly information available up to the time of production of this *World Employment and Social Outlook* report (November 2017). The model also estimates employment by status using similar techniques to impute missing values at the country level. In addition to GDP growth rate, the variables used as explanatory variables are the value added shares of the three broad sectors in GDP, per capita GDP and the share of people living in urban areas. Additional econometric models are used to produce global and regional estimates of working poverty and employment by economic class (Kapsos and Bourmpoula, 2013).

Projections of labour market indicators

Unemployment rate projections are obtained using the historical relationship between unemployment rates and GDP growth during the worst crisis/downturn period for each country between 1991 and 2005, and during the corresponding recovery period.[2] This was done through the inclusion of interaction terms of crisis and recovery dummy variables with GDP growth in fixed effects panel regressions.[3] Specifically, the logistically transformed unemployment rate was regressed on a set of covariates, including the lagged unemployment rate, the GDP growth rate, the lagged GDP growth rate and a set of covariates consisting of the interaction of the crisis dummy and the interaction of the recovery-year dummy with each of the other variables.

Separate panel regressions were run across three different groupings of countries, based on:

(1) geographic proximity and economic/institutional similarities;

(2) income levels;[4]

(3) level of export dependence (measured as exports as a percentage of GDP).[5]

The rationale behind these groupings is as follows: Countries within the same geographic area or with similar economic/institutional characteristics are likely to be similarly affected by the crisis and have similar mechanisms to attenuate the impact of the crisis on their labour markets. Furthermore, because countries within given geographic areas often have strong trade and financial linkages, the crisis is likely to spill over from one country to its neighbour (e.g. Canada's economy and labour market developments are intricately linked to developments in the United States). Countries with similar income levels are also likely to have similar labour market institutions (e.g. social protection measures) and similar capacities to implement fiscal stimulus and other policies to counter the crisis impact. Finally, as the decline in exports was the primary crisis transmission channel from developed to developing countries, countries were grouped according to their level of exposure to this channel, as measured by their exports as a percentage of GDP. The impact of the crisis on labour markets through the export channel also depends on the type of exports (the affected sectors of the economy) involved, the share of domestic value added in exports and the relative importance of domestic consumption (for instance, countries such as India and Indonesia, with a large domestic market, were less vulnerable than countries such as Singapore and Thailand). These characteristics are controlled for by using fixed effects in the regressions.

In addition to the panel regressions, country-level regressions were run for countries with sufficient data. The ordinary least squares country-level regressions included the same variables as the panel regressions.

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2. The crisis period comprises the span between the year in which a country experienced the largest drop in GDP growth and the "turning point year" when growth reached its lowest level following the crisis before starting to climb back to its pre-crisis level. The recovery period comprises the years between the "turning point year" and the year when growth has returned to its pre-crisis level.

3. In order to project unemployment during the current recovery period, the crisis-year and recovery-year dummies were adjusted, based on the following definition: a country was considered to be "currently in crisis" if the drop in GDP growth after 2007 was larger than 75 per cent of the absolute value of the standard deviation of GDP growth over the 1991–2008 period and/or larger than 3 percentage points.

4. The income groups correspond to the World Bank income group classification of four income categories, based on countries' 2008 gross national income (GNI) per capita (calculated using the Atlas method): low-income countries, US$975 or less; lower middle-income countries, US$976–US$3,855; upper middle-income countries, US$3,856–US$11,905; and high-income countries, US$11,906 or more.

5. The export dependence-based groups are: highest exports (exports ≥ 70 per cent of GDP); high exports (exports <70 per cent but ≥50 per cent of GDP); medium exports (exports <50 per cent but ≥20 per cent of GDP); and low exports (exports <20 per cent of GDP).

To take into account the uncertainty surrounding GDP prospects, as well as the complexity of capturing the relationship between GDP and unemployment rates for all the countries, a variety of ten (similar) multilevel mixed-effects linear regressions (varying-intercept and varying-coefficient models) are utilized. The main component that changes across these ten versions is the lag structure of the independent variables. The potential superiority of these models lies in the fact that not only is the panel structure fully exploited (e.g. increased degrees of freedom), but it is also possible to estimate the coefficients specifically for each unit (country), taking into account unobserved heterogeneity at the cluster level and correcting for the random effects approach caveat that the independent variables are not correlated with the random effects term.

Overall, the final projection was generated as a simple average of the estimates obtained from the three group panel regressions and also, for countries with sufficient data, the country-level regressions. For a selection of countries (40 out of 189), an average of another set of forecast combinations was made according to a judgement-based appraisal in order to represent more realistically the recent trends observed in each country's economic forecast.

Short-term projection model

For 41 countries, the preliminary unemployment estimate for 2017 and the projection for 2018 and 2019 are based on results from a country-specific short-term projection model. The ILO maintains a database on monthly and quarterly unemployment flows that contains information on inflow and outflow rates of unemployment, estimated on the basis of unemployment by duration, following the methodologies proposed by Shimer (2012) and Elsby, Hobijn and Sahin (2013). A multitude of models are specified that either project the unemployment rate directly or determine both inflow and outflow rates, using ARIMA, VARX and combined forecast techniques. The short-term projection model relies on several explanatory variables, including hiring uncertainty (Ernst and Viegelahn, 2014), policy uncertainty (Baker, Bloom and Davis, 2013), macroeconomic forecasts by Oxford Economics and the Manpower Employment Survey Outlook. All estimated models are evaluated on an eight-quarter ahead rolling pseudo out-of-sample forecasting evaluation starting in Q1 2009, among which five models are selected using a weighting of the mean and maximum forecast error. The top five model forecasts are then averaged.

Sectoral employment estimates and projections

In addition to the labour market indicators mentioned above, this report also presents estimates and projections of the distribution of the employed population across sectors of economic activity. The main data source used for the estimation and projection of the employment shares by sector is the database on "Employment by sex and economic activity" available on ILOSTAT, which is complemented with data on sectoral employment from the OECD. To produce estimates and projections of sectoral employment shares, data on sectoral value added shares of GDP are taken from the United Nations Statistics Division – System of National Accounts – National Accounts Main Aggregates (UNSD SNAAMA, December 2016) database. The Economist Intelligence Unit (EIU) database was used to supplement the data from the above sources and also to assist in projecting the value added shares by sector. The demographic variables used in the model come from the United Nations World Population Prospects (UN WPP), the United Nations World Urbanization Prospects (UN WUP) and the ILO Labour Force Estimates and Projections (ILO LFEP). Other sources of data for explanatory variables are the IMF World Economic Outlook database, the World Bank World Development Indicators database and the IMF International Financial Statistics database. The explanatory variables that are considered include: GDP per capita, output per worker, investment, exports of goods, imports of goods, general government final consumption expenditure, gross capital formation, trade in services, real effective exchange rate index, value added by sector, ratio of female-to-male labour force aged 30 to 64 years old, share of urban population in total population, share of population aged less than 15 years old in total population, share of population aged less than 15 years old and population aged above 65 years old in total population, share of wage and salaried workers in total employment. Estimates and projections are produced on the basis of a methodology that proceeds in three steps: (i) run regressions with a set of different combinations of the potential explanatory variables; (ii) select the specifications for which the goodness-of-fit is best; and (iii) run a bootstrap procedure on those specifications and calculate for each geographic region and each sector the root mean square error (RMSE), based on this procedure. At this point, the

RMSE is produced not only for these specifications but also for the average prediction among all the specifications selected, the average among the three best and among the five best performers. Then, for each sector or occupation and for each region, the specification with the lowest RMSE is selected to be used for the final estimates. Finally, some adjustments are made to the estimates in order to make sure that the sum of shares across all categories equals 100 and that the sum of men and women working in a specific sector equals the number of the estimate for both sexes.

Estimated sectors represent an ILO-specific classification that allows maximum consistency between the third and fourth revision of the International Standard of Industry Classification (ISIC). The sectors A, B, C, F, G, I, K, O, P and Q correspond to the ISIC Rev.4 classification. Furthermore, the following composite sectors are defined:

- *Utilities* is composed of sectors D and E
- *Transport, storage and communication* is composed of sectors H and J
- *Real estate and business services* is composed of sectors L, M and N
- *Other services* is composed of sectors R, S and T.

Social unrest index

The social unrest index is an indicator that provides a reflection of social health at the national level. The index uses data from the Global Database of Events, Language, and Tone (GDELT) project on events around the world classified as "protests" (code 14 in the database). Many different types of protest behaviours are recorded, such as street protest, riots, rallies, boycotts, road blockages and strikes. Such protests are not necessarily violent, but always reflect a discontent with the social, political or economic situation in the country.

The index ranges from 0 to 100 and is computed from a log-transformation of the share of protest events in the total number of events in a year and country, as reported by the GDELT project. An index of 100 corresponds to protest events having a share of 15 per cent or more in total events.

Social unrest is a relative concept across countries. An equal value of the underlying absolute metric in two countries does not imply identical conditions of social unrest in these countries due to inherent differences in countries' culture, history and methods of reporting. The social unrest index allows a cross-country comparison which identifies those countries or regions that are experiencing periods of heightened unrest. However, it is conceptually incorrect to state that one country experiences, say, 10 per cent more unrest than another.

Appendix C. Changes to the estimates and projections: Trends Econometric Models (TEM) 2017 versus 2016

As in the previous editions of the TEM, global unemployment levels and rates have been revised to take into account new information on unemployment rates as well as revisions to historical data and projections on labour force and economic growth.

Table C1

Comparison of global unemployment levels and rates, November 2017 versus November 2016

	2005	2010	2015	2016	2017p	2018p
Unemployed (millions)						
Nov. 2016 (previous estimates)	188.7	195.0	194.5	197.7	201.1	203.8
Nov. 2017 (revised estimates)	180.2	184.8	184.6	190.1	192.7	192.3
Difference	–8.5	–10.2	–9.9	–7.6	–8.4	–11.5
Unemployment rate (percentages)						
Nov. 2016 (previous estimates)	6.2	6.1	5.7	5.7	5.8	5.8
Nov. 2017 (revised estimates)	6.0	5.8	5.5	5.5	5.6	5.5
Difference (percentage points)	–0.2	–0.3	–0.2	–0.2	–0.2	–0.3

Source: ILO TEM November 2016 and TEM November 2017.

Three principal factors are driving the differences between the TEM November 2017 and the TEM November 2016 unemployment estimates and projections: (1) revisions to historical unemployment rates; (2) revisions to labour force estimates; and (3) forecast revisions. Figure C1 shows their contribution to the unemployment revision globally and by development country group.

Revisions to historical unemployment rates: The largest contribution to the unemployment headcount revision comes from revisions to historical data, which have been subject to a number of changes due to the following factors:

The consistent application of the ILO unemployment definition across countries: In order to ensure international comparability of data, the ILO has made important efforts to gather and analyse micro-data from labour force surveys to facilitate the reliable measurement of unemployment rates, particularly by strictly applying the definition established by the International Conference of Labour Statisticians.[1] These efforts resulted in major revisions to the reported unemployment rate for a total of 16 countries.[2] Overall, this accounts for 6.4 million of the total downward revision to the unemployment headcount, and corresponds principally to emerging countries.

Inclusion of new unemployment rate data entries from national labour force surveys: Overall, the TEM of November 2017 includes 196 new reported observations (of which 103 correspond to 2016) relative to the TEM November 2016, notably new information on unemployment rates for four countries (Angola, Guinea, Togo and Turkmenistan) that were previously estimated by the TEM model. This accounts for a downward revision of global unemployment by 3.5 million. In addition, the global unemployment estimate now includes South Sudan, adding 0.6 million unemployed to the global figure.

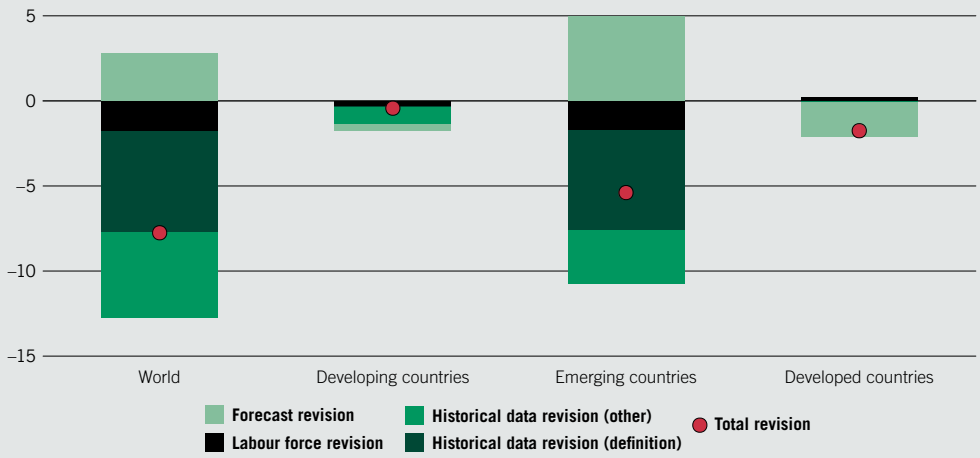
Removal of inconsistent data entries: A total of 42 unemployment rate data entries have been removed from the TEM model because of inconsistencies, such as series breaks, mostly related to the limited availability of micro-data. These include the Dominican Republic (1991–2004), Mauritius (1992–2000) and Peru (1992–93).

1. According to Resolution I adopted by the 19th International Conference of Labour Statisticians, a person is unemployed when fulfilling three criteria within the reference period: (i) the person is not in employment, (ii) the person is seeking work, and (iii) the person is available to take up work.

2. Namely Angola, Plurinational State of Bolivia, El Salvador, Ghana, Honduras, Indonesia, Lesotho, Mali, Mongolia, Nigeria, Pakistan, Paraguay, Peru, Philippines, Samoa and Sierra Leone.

Figure C1

Decomposition of unemployment revision into its components, 2017



Source: ILO calculations based on TEM November 2016 and TEM November 2017.

Revision to labour force estimates: The TEM of November 2017 draws on the latest update (October 2017) of the labour force participation rate computed by the ILO's Labour Force Estimates and Projections (LFEP) model, which in turn makes use of the 2017 revision of the UN World Population Prospects (WPP) database. With respect to the labour force data used in the TEM of November 2016, the global labour force was revised downward by an annual average of 1.6 million over the period 1991–2019 and by an annual average of 3.3 million over the period 2015–19. In this year's model, revised labour force figures account for 1.7 million of the reduction in the unemployment headcount.

Forecast revision: The availability of new and better data entries, as outlined above, has brought about changes to the forecast unemployment rates. These changes entail an upward revision of the global unemployment level by 2.7 million, meaning that the trajectory of unemployment for the years 2016 and 2017 was underestimated by the previous edition of the TEM. Importantly, forecasts have been revised downward in developed and developing countries, but upward in emerging countries.

Appendix D. Countries, sources and periods used in the analysis of employment conditions at the sectoral level

	Source	Period	Vulnerable employment	Informal employment	Temporary employment	Part-time employment	Excessive working hours	Under-employment
Developed countries								
Austria	EU – Labour Force Survey	2015Q4	✓	×	✓	✓	✓	✓
Belgium	EU – Labour Force Survey	2015Q4	✓	×	✓	✓	✓	✓
Brunei Darussalam	Labour Force Survey	2014	✓	✓	✓	✓	✓	✓
Chile	Encuesta Nacional de Empleo	2017M7	✓	✓	✓	✓	✓	✓
Cyprus	EU – Labour Force Survey	2015Q4	✓	×	✓	✓	✓	✓
Czech Republic	EU – Labour Force Survey	2015Q4	✓	×	✓	✓	✓	✓
Denmark	EU – Labour Force Survey	2015Q4	✓	×	✓	✓	✓	✓
Estonia	EU – Labour Force Survey	2015Q4	✓	×	✓	✓	✓	✓
Finland	EU – Labour Force Survey	2015Q4	✓	×	✓	✓	✓	✓
France	EU – Labour Force Survey	2015Q4	✓	×	✓	✓	✓	✓
Greece	EU – Labour Force Survey	2015Q4	✓	×	✓	✓	✓	✓
Hungary	EU – Labour Force Survey	2015Q4	✓	×	✓	✓	✓	✓
Iceland	EU – Labour Force Survey	2015Q4	✓	×	✓	✓	✓	✓
Ireland	EU – Labour Force Survey	2015Q4	✓	×	✓	✓	✓	✓
Italy	EU – Labour Force Survey	2015Q4	✓	×	✓	✓	✓	✓
Latvia	EU – Labour Force Survey	2015Q4	✓	×	✓	✓	✓	✓
Lithuania	EU – Labour Force Survey	2015Q4	✓	×	✓	✓	✓	✓
Luxembourg	EU – Labour Force Survey	2015Q4	✓	×	✓	✓	✓	✓
Malta	EU – Labour Force Survey	2015Q4	✓	×	✓	✓	✓	✓
Netherlands	EU – Labour Force Survey	2015Q4	✓	×	✓	✓	✓	✓
Norway	EU – Labour Force Survey	2015Q4	✓	×	✓	✓	✓	✓
Poland	EU – Labour Force Survey	2015Q4	✓	×	✓	✓	✓	✓
Portugal	EU – Labour Force Survey	2015Q4	✓	×	✓	✓	✓	✓
Slovakia	EU – Labour Force Survey	2015Q4	✓	×	✓	✓	✓	✓
Slovenia	EU – Labour Force Survey	2015Q4	✓	×	✓	✓	✓	✓
Spain	EU – Labour Force Survey	2015Q4	✓	×	✓	✓	✓	✓
Sweden	EU – Labour Force Survey	2015Q4	✓	×	✓	✓	✓	✓
Switzerland	EU – Labour Force Survey	2015Q4	✓	×	✓	✓	✓	✓
United Kingdom	EU – Labour Force Survey	2015Q4	✓	×	✓	✓	✓	✓
Uruguay	Encuesta Continua de Hogares	2016Q4	✓	✓	×	✓	✓	✓
Upper middle-income countries								
Albania	Labour Force Survey	2013Q4	✓	✓	✓	✓	✓	✓
Argentina	Encuesta Permanente de Hogares	2017Q1	✓	✓	✓	✓	✓	✓
Botswana	Core Welfare Indicators Survey	2009	✓	×	✓	✓	✓	×
Brazil	Pesquisa Nacional por Amostra de Domicílios	2017Q2	✓	×	×	✓	✓	✓
Bulgaria	EU – Labour Force Survey	2015Q4	✓	×	✓	✓	✓	✓
Colombia	Gran Encuesta Integrada de Hogares	2017M7	✓	✓	✓	✓	✓	✓
Croatia	EU – Labour Force Survey	2015Q4	✓	×	✓	✓	✓	✓
Dominican Republic	Encuesta de Fuerza de Trabajo	2015Q4	✓	✓	✓	✓	✓	✓
Ecuador	Encuesta Nacional de Empleo y Desempleo	2017Q3	✓	✓	✓	✓	✓	✓
Mexico	Encuesta Nacional de Ocupación y Empleo	2017Q2	✓	×	✓	✓	✓	×

	Source	Period	Vulnerable employment	Informal employment	Temporary employment	Part-time employment	Excessive working hours	Under-employment
Namibia	Labour Force Survey	2016	✓	✓	✓	✓	✓	×
Panama	Encuesta de Mercado Laboral	2016	✓	✓	×	✓	✓	✓
Peru	Encuesta Nacional de Hogares	2016	✓	✓	✓	✓	✓	✓
Romania	EU – Labour Force Survey	2015Q4	✓	×	✓	✓	✓	✓
Russian Federation	Labour Force Survey	2015Q4	✓	×	✓	✓	✓	×
Samoa	Labour Force Survey	2012	✓	✓	✓	✓	✓	✓
Serbia	Labour Force Survey	2017Q2	✓	✓	✓	✓	✓	✓
South Africa	Quarterly Labour Force Survey	2017Q2	✓	✓	✓	✓	✓	✓
Thailand	Labour Force Survey	2015Q4	✓	×	×	✓	✓	✓
Turkey	Labour Force Survey	2015	✓	✓	✓	✓	✓	✓
Lower middle-income countries								
Angola	Inquerito de Indicadores Básicos do Bem-Estar	2011	✓	✓	✓	×	×	×
Armenia	Labour Force Survey	2015Q4	✓	✓	✓	✓	✓	✓
Bangladesh	Labour Force Survey	2013	✓	✓	✓	✓	✓	✓
Bolivia, Plur. State of	Encuesta de Hogares	2015	✓	✓	×	✓	✓	✓
Cambodia	Labour Force Survey	2012	✓	✓	✓	✓	✓	✓
Cameroon	Enquête Camerounaise auprès des Ménages	2007	✓	✓	✓	✓	✓	×
Côte d'Ivoire	Enquête Nationale sur la Situation de l'Emploi et le Secteur Informel	2016	✓	✓	✓	✓	✓	✓
Egypt	Labour Force Survey	2016	✓	✓	✓	✓	✓	✓
El Salvador	Encuesta de Hogares de Propósitos Múltiples	2016	✓	✓	✓	✓	✓	✓
Ghana	Living Standards Survey	2013	✓	✓	×	✓	✓	✓
Guatemala	Encuesta Nacional de Empleo e Ingresos	2017Q1	✓	✓	✓	✓	✓	✓
Honduras	Encuesta Permanente de Hogares de Propósitos Múltiples	2016	✓	✓	×	✓	✓	✓
India	National Sample Survey	2012	✓	✓	×	✓	×	×
Indonesia	Labour Force Survey	2017Q1	✓	✓	✓	✓	✓	✓
Kenya	Labour Force Survey	1999	✓	×	×	×	✓	×
Lao People's Democratic Republic	Labour Force Survey	2010	✓	×	×	✓	✓	✓
Moldova, Republic of	Labour Force Survey	2017Q2	✓	×	×	✓	✓	✓
Mongolia	Labour Force Survey	2016Q4	✓	✓	×	✓	✓	✓
Myanmar	Labour Force Survey	2015	✓	✓	✓	✓	✓	✓
Nicaragua	Encuesta de Medición de Nivel de Vida	2014	✓	×	×	✓	✓	×
Occupied Palestinian Territory	Labour Force Survey	2015	✓	✓	✓	✓	✓	✓
Pakistan	Labour Force Survey	2015Q2	✓	✓	×	✓	✓	✓
Philippines	Labour Force Survey	2017Q1	✓	×	✓	✓	✓	×
Sri Lanka	Labour Force Survey	2013	✓	✓	✓	✓	✓	✓
Timor-Leste	Labour Force Survey	2013	✓	✓	✓	✓	✓	✓
Tunisia	Enquête nationale sur la population et l'emploi	2013	✓	×	×	×	×	×
Viet Nam	Labour Force Survey	2014Q4	✓	✓	×	✓	✓	✓
Yemen	Labour Force Survey	2014Q4	✓	✓	✓	✓	✓	✓

	Source	Period	Vulnerable employment	Informal employment	Temporary employment	Part-time employment	Excessive working hours	Under-employment
Developing countries								
Burkina Faso	Enquête Multisectorielle Continue	2014	✓	×	✓	✓	✓	×
The Gambia	Labour Force Survey	2012	✓	✓	✓	✓	✓	✓
Liberia	Labour Force Survey	2010	✓	✓	✓	✓	✓	✓
Madagascar	Labour Force Survey	2012	✓	×	✓	✓	✓	×
Mali	Enquête Modulaire et Permanente auprès des Ménages	2015	✓	✓	✓	✓	✓	×
Nepal	Labour Force Survey	2008	✓	✓	×	✓	✓	✓
Niger	Enquête nationale sur les Conditions de Vie des Ménages et l'Agriculture	2011	✓	✓	✓	×	✓	✓
Rwanda	Integrated Household Living Conditions Survey	2014	✓	×	✓	×	✓	✓
Senegal	Enquête Nationale sur l'Emploi	2015	✓	✓	✓	×	✓	×
Sierra Leone	Labour Force Survey	2014	✓	×	✓	✓	✓	✓
Tanzania, United Republic of	Labour Force Survey	2014	✓	✓	✓	✓	✓	×
Togo	Questionnaire Unifié des Indicateurs de Base du Bien-Etre	2011	×	×	×	✓	✓	×
Uganda	Labour Force Survey	2012	✓	✓	✓	✓	✓	×
Zimbabwe	Labour Force Survey	2011	✓	×	✓	✓	×	✓

Note: Q refers to the quarter and M to the month when the survey was conducted.

Appendix E. Labour market and social statistics by ILO region

The underlying country and regional data presented in this report can be explored using the interactive WESO data portal, accessible at www.ilo.org/wesodata.

Table E1

Unemployment rate and total unemployment: Trends and projections 2007–19

Country/region	Unemployment rate, 2007–19 (percentages)				Unemployment, 2017–19 (millions)		
	2007–16	2017	2018	2019	2017	2018	2019
World		**5.6**	**5.5**	**5.5**	**192.7**	**192.3**	**193.6**
Developing countries		5.3	5.3	5.3	15.6	16.1	16.6
Emerging countries		5.6	5.5	5.5	143.0	143.4	144.6
Developed countries		5.7	5.5	5.4	34.1	32.8	32.4
Northern Africa		**11.7**	**11.5**	**11.4**	**8.7**	**8.7**	**8.7**
Sub-Saharan Africa		**7.2**	**7.2**	**7.3**	**29.1**	**30.2**	**31.3**
Latin America and the Caribbean		**8.2**	**7.9**	**7.7**	**25.5**	**24.8**	**24.4**
Northern America		**4.7**	**4.5**	**4.6**	**8.5**	**8.3**	**8.5**
Arab States		**8.5**	**8.3**	**8.4**	**4.7**	**4.8**	**4.9**
Eastern Asia		**4.5**	**4.5**	**4.6**	**41.8**	**41.8**	**42.0**
South-Eastern Asia and the Pacific		**3.4**	**3.4**	**3.5**	**11.7**	**12.0**	**12.4**
Southern Asia		**4.1**	**4.1**	**4.1**	**29.5**	**29.7**	**30.2**
Northern, Southern and Western Europe		**8.5**	**8.0**	**7.8**	**18.6**	**17.7**	**17.0**
Eastern Europe		**5.5**	**5.3**	**5.1**	**8.1**	**7.6**	**7.3**
Central and Western Asia		**8.6**	**8.6**	**8.6**	**6.7**	**6.7**	**6.8**

Note: See Appendix A for the list of country groupings by geographic region and income level.

Source: ILO Trends Econometric Models, November 2017.

Table E2

Vulnerable employment rate and total vulnerable employment: Trends and projections 2007–19

Country/region	Vulnerable employment rate, 2007–19 (percentages)				Vulnerable employment, 2017–19 (millions)		
	2007–16	2017	2018	2019	2017	2018	2019
World		**42.5**	**42.6**	**42.7**	**1391.3**	**1409.0**	**1426.4**
Developing countries		76.5	76.4	76.4	211.8	218.5	225.3
Emerging countries		46.2	46.2	46.3	1122.8	1134.0	1144.8
Developed countries		10.0	9.9	9.9	56.7	56.5	56.3
Northern Africa		**30.4**	**30.4**	**30.3**	**19.8**	**20.2**	**20.6**
Sub-Saharan Africa		**72.1**	**72.1**	**72.2**	**270.7**	**279.3**	**288.2**
Latin America and the Caribbean		**32.2**	**32.1**	**32.1**	**91.5**	**93.1**	**94.4**
Northern America		**6.8**	**6.7**	**6.7**	**11.8**	**11.8**	**11.7**
Arab States		**17.8**	**17.8**	**17.8**	**9.1**	**9.3**	**9.5**
Eastern Asia		**31.2**	**31.1**	**31.0**	**276.6**	**275.1**	**273.5**
South-Eastern Asia and the Pacific		**46.2**	**46.1**	**46.0**	**154.5**	**156.1**	**157.6**
Southern Asia		**72.1**	**72.0**	**71.9**	**498.7**	**505.7**	**512.6**
Northern, Southern and Western Europe		**11.3**	**11.2**	**11.1**	**22.7**	**22.7**	**22.6**
Eastern Europe		**10.6**	**10.6**	**10.6**	**14.6**	**14.5**	**14.4**
Central and Western Asia		**30.1**	**29.7**	**29.5**	**21.2**	**21.3**	**21.4**

Note: See Appendix A for the list of country groupings by geographic region and income level.

Source: ILO Trends Econometric Models, November 2017.

Table E3

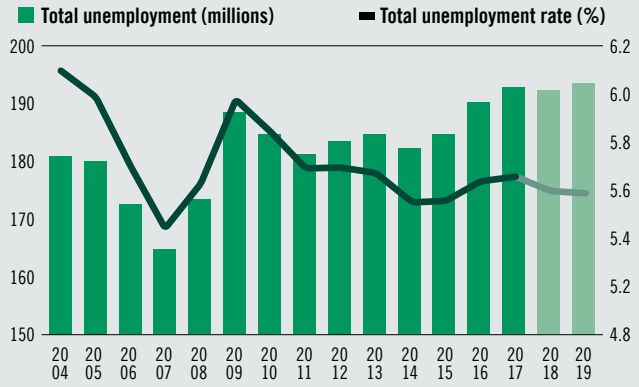
Working poverty rate and total working poverty: Trends and projections 2007–19

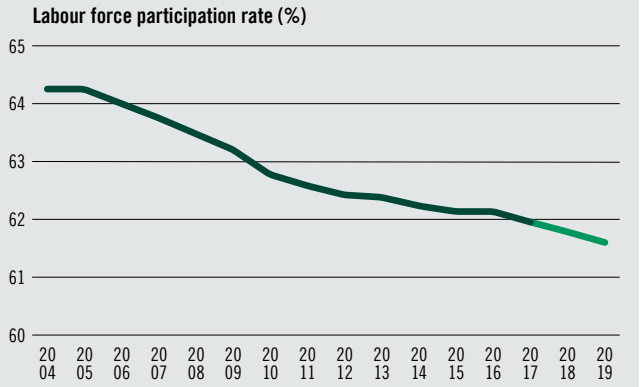
Country/region	Extreme and moderate working poverty rate, 2007–19 (percentages)				Extreme and moderate working poverty, 2017–19 (millions)		
	2007–16	2017	2018	2019	2017	2018	2019
Total developing and emerging countries		**27.2**	**26.2**	**25.3**	**731.1**	**712.6**	**695.2**
Developing countries		68.6	67.5	66.3	186.8	189.5	192.1
Emerging countries		22.5	21.5	20.5	544.2	523.1	503.1
Northern Africa		**25.1**	**24.6**	**24.1**	**16.4**	**16.4**	**16.4**
Sub-Saharan Africa		**60.8**	**60.0**	**59.0**	**228.4**	**232.2**	**235.7**
Latin America and the Caribbean		**8.7**	**8.5**	**8.1**	**24.9**	**24.5**	**23.8**
Arab States		**20.5**	**20.5**	**20.1**	**10.5**	**10.7**	**10.8**
Eastern Asia		**9.7**	**8.7**	**7.9**	**86.1**	**77.3**	**69.9**
South-Eastern Asia and the Pacific		**19.6**	**18.4**	**17.4**	**65.6**	**62.5**	**59.6**
Southern Asia		**42.7**	**40.6**	**38.7**	**295.5**	**285.5**	**275.9**
Eastern Europe		**0.1**	**0.1**	**0.1**	**0.2**	**0.2**	**0.2**
Central and Western Asia		**5.5**	**5.1**	**4.6**	**3.9**	**3.6**	**3.3**

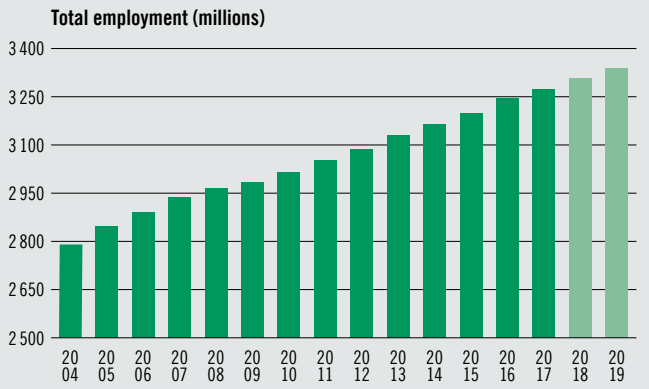
Note: See Appendix A for the list of country groupings by geographic region and income level. Extreme and moderate working poverty refers to workers living on income or consumption per capita of less than US$3.10 per day (PPP).

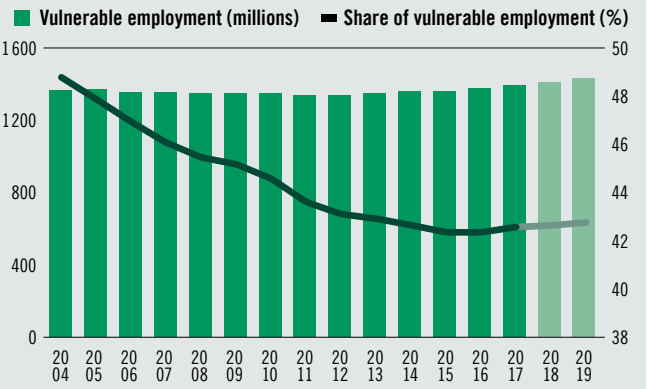
Source: ILO Trends Econometric Models, November 2017.

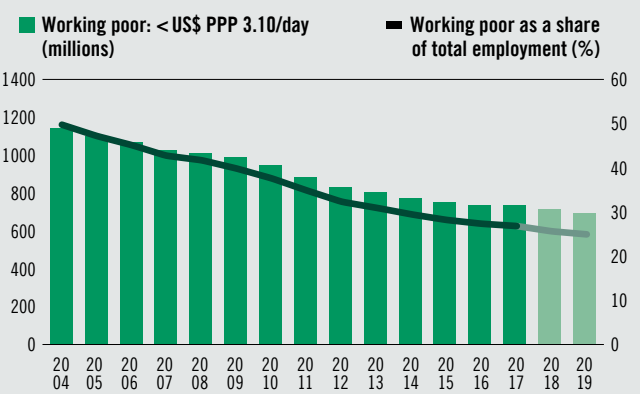
World

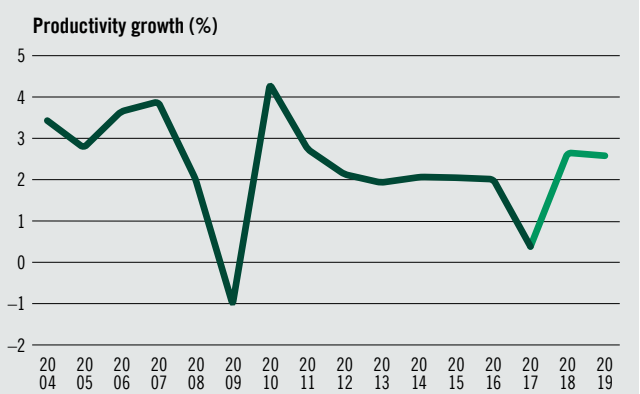

Total unemployment (millions)
Total unemployment rate (%)
200
190
180
170
160
150
6.2
6.0
5.8
5.6
5.4
5.2
4.8
20 04 20 05 20 06 20 07 20 08 20 09 20 10 20 11 20 12 20 13 20 14 20 15 20 16 20 17 20 18 20 19

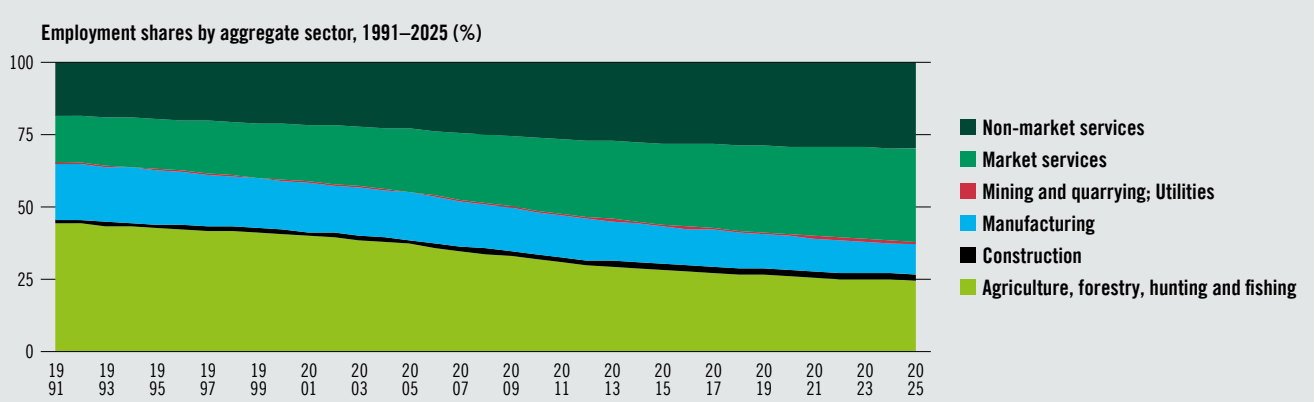

Labour force participation rate (%)
65
64
63
62
61
60
20 04 20 05 20 06 20 07 20 08 20 09 20 10 20 11 20 12 20 13 20 14 20 15 20 16 20 17 20 18 20 19


Total employment (millions)
3 400
3 250
3 100
2 950
2 800
2 650
2 500
20 04 20 05 20 06 20 07 20 08 20 09 20 10 20 11 20 12 20 13 20 14 20 15 20 16 20 17 20 18 20 19

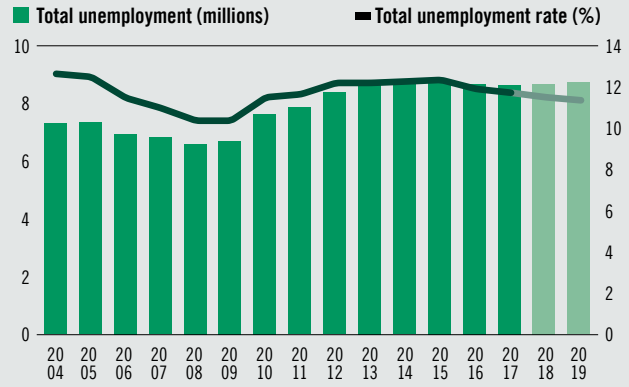

Vulnerable employment (millions)
Share of vulnerable employment (%)
1 600
1200
800
400
0
50
48
46
44
42
40
38
20 04 20 05 20 06 20 07 20 08 20 09 20 10 20 11 20 12 20 13 20 14 20 15 20 16 20 17 20 18 20 19

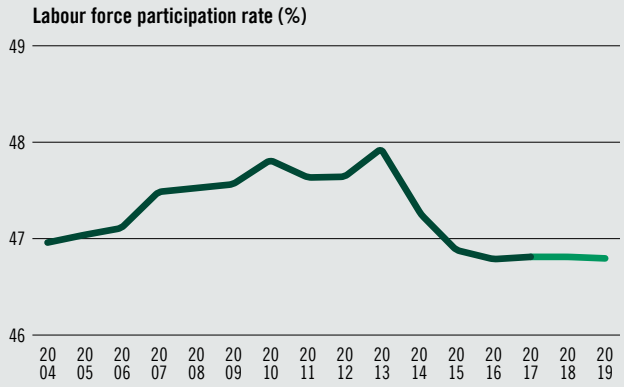

Working poor: < US$ PPP 3.10/day (millions)
Working poor as a share of total employment (%)
1400
1200
1000
800
600
400
200
0
60
50
40
30
20
10
0
20 04 20 05 20 06 20 07 20 08 20 09 20 10 20 11 20 12 20 13 20 14 20 15 20 16 20 17 20 18 20 19

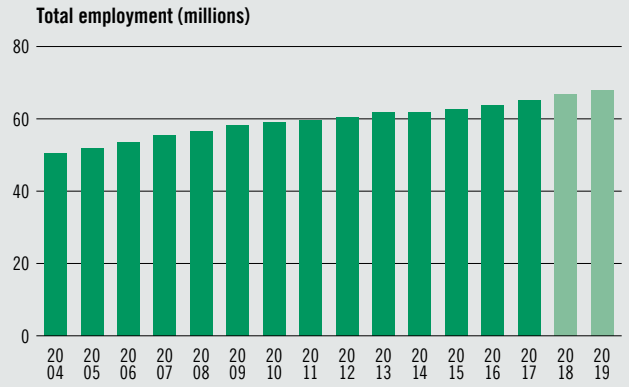

Productivity growth (%)
5
4
3
2
1
0
–1
–2
20 04 20 05 20 06 20 07 20 08 20 09 20 10 20 11 20 12 20 13 20 14 20 15 20 16 20 17 20 18 20 19

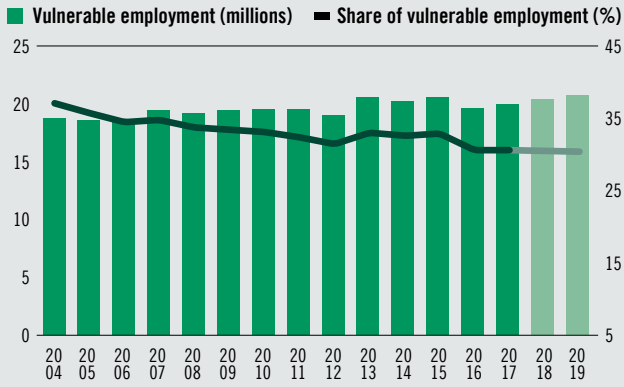

Employment shares by aggregate sector, 1991–2025 (%)
100
75
50
25
0
19 91 19 93 19 95 19 97 19 99 20 01 20 03 20 05 20 07 20 09 20 11 20 13 20 15 20 17 20 19 20 21 20 23 20 25
Non-market services
Market services
Mining and quarrying; Utilities
Manufacturing
Construction
Agriculture, forestry, hunting and fishing

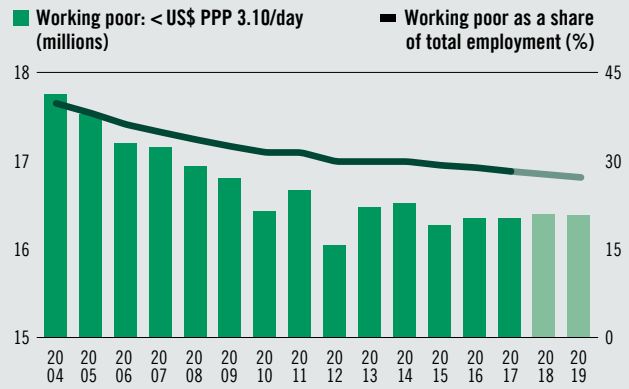
Northern Africa

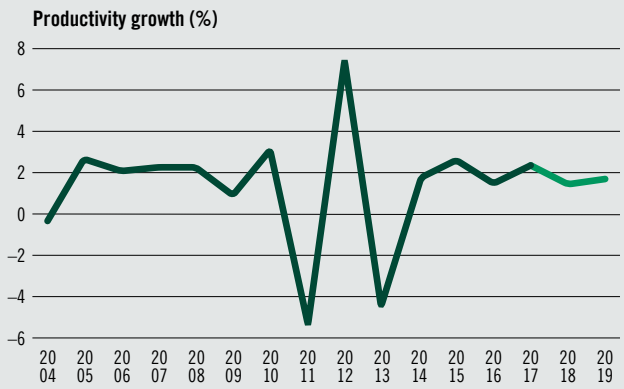


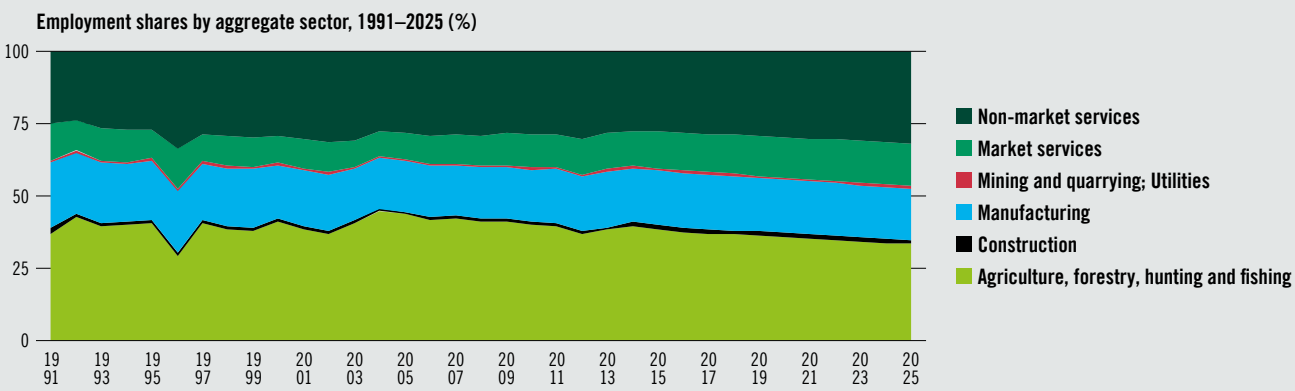




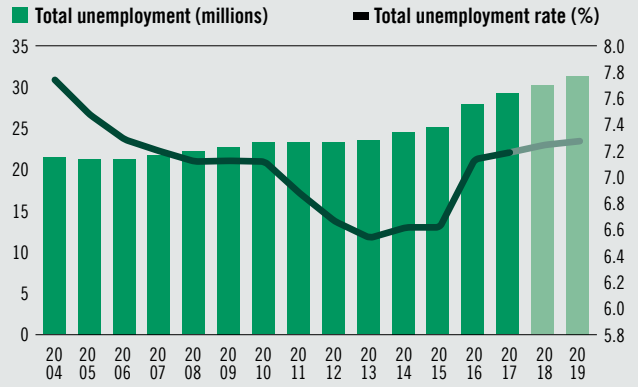


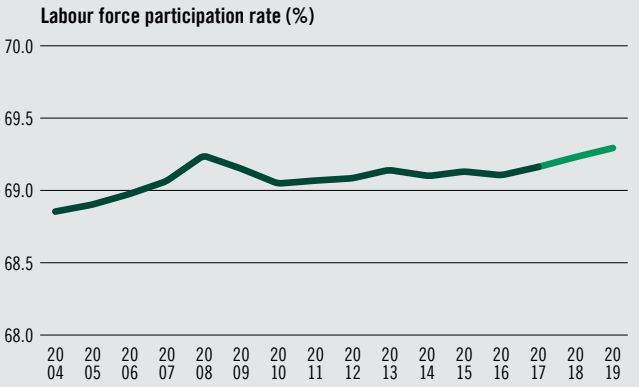


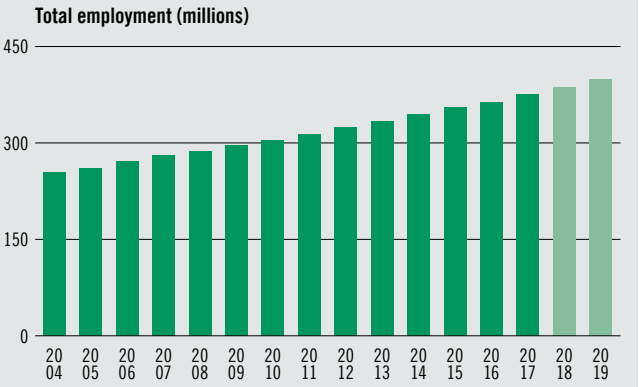


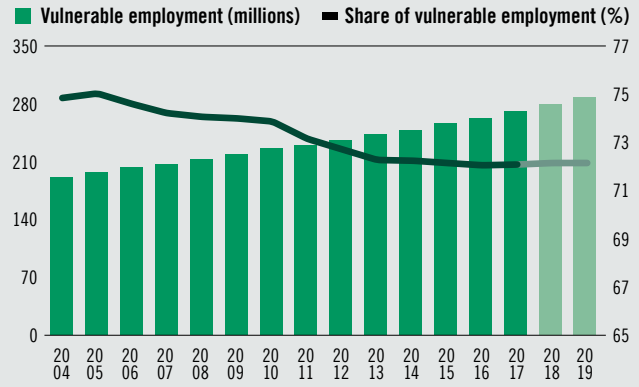


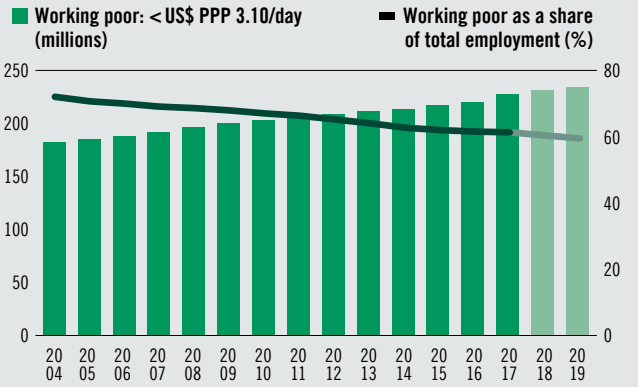
Sub-Saharan Africa

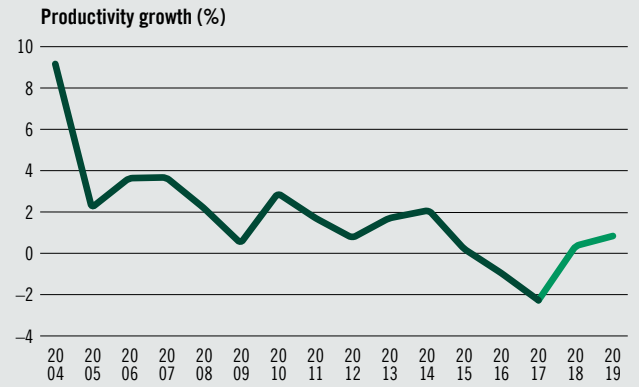


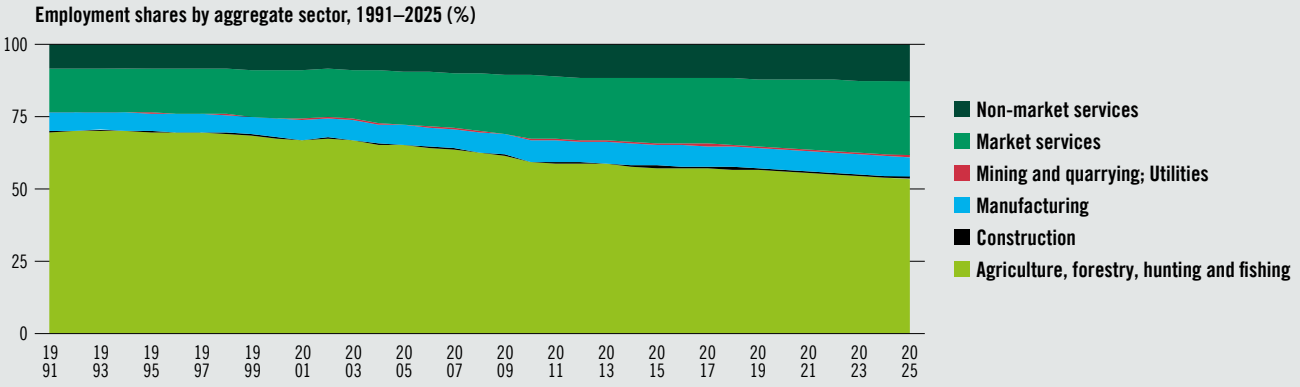




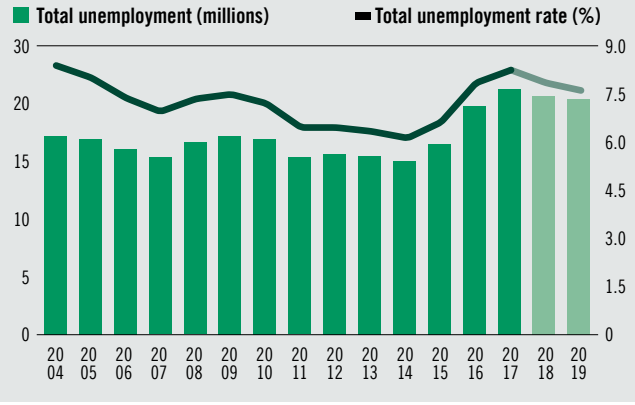


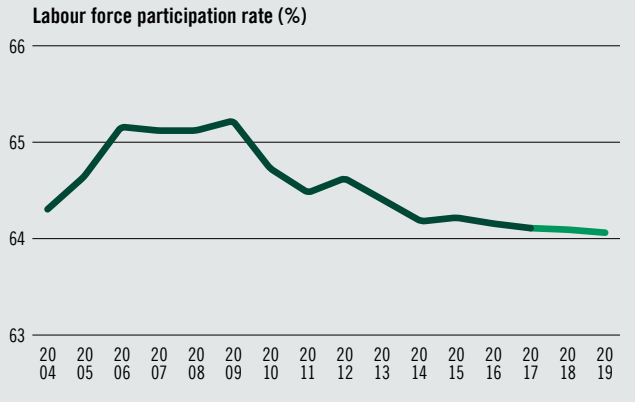


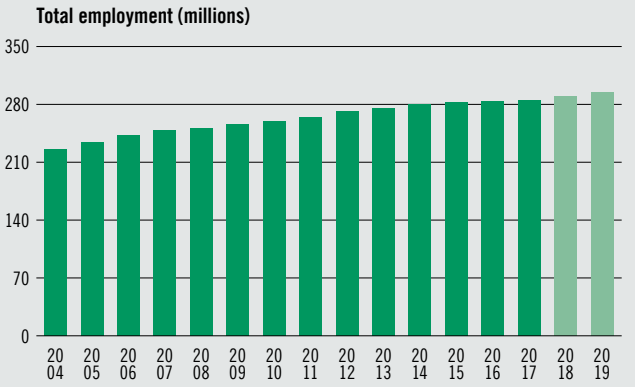


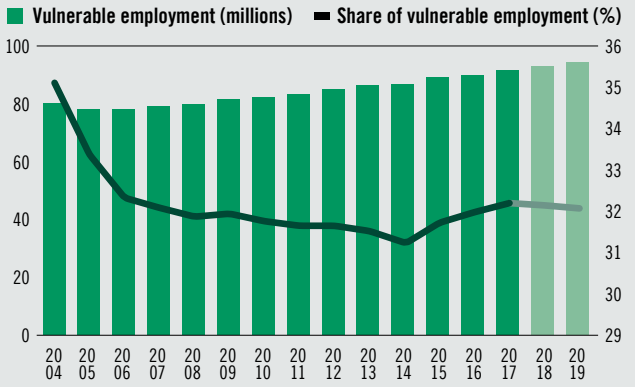


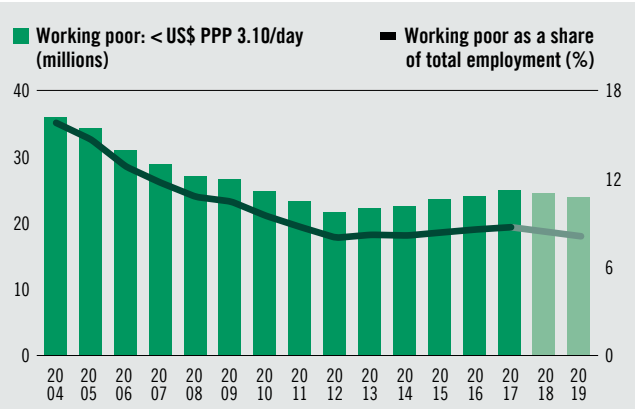
Latin America and the Caribbean

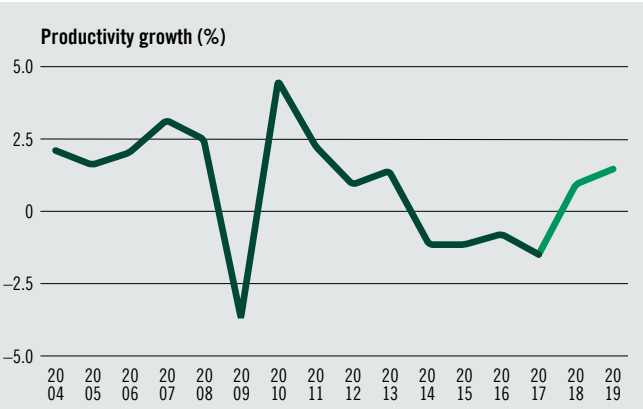


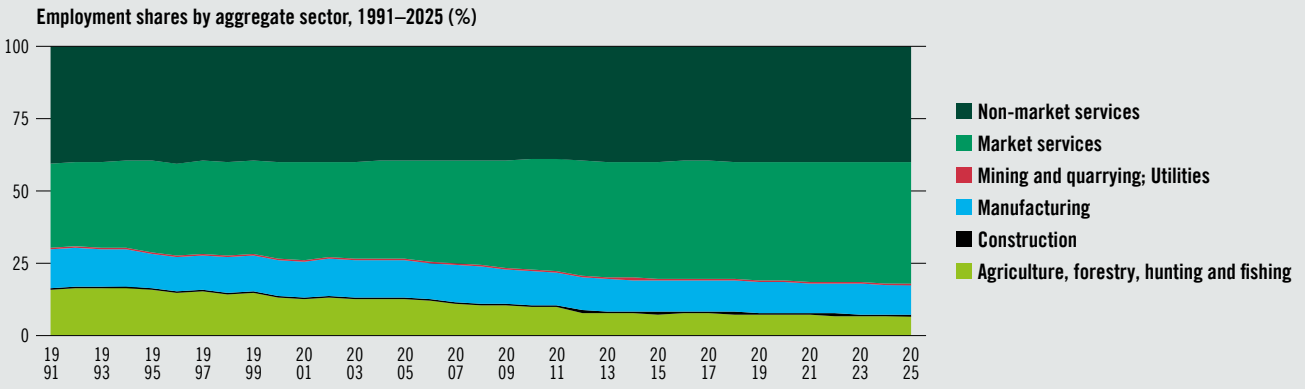




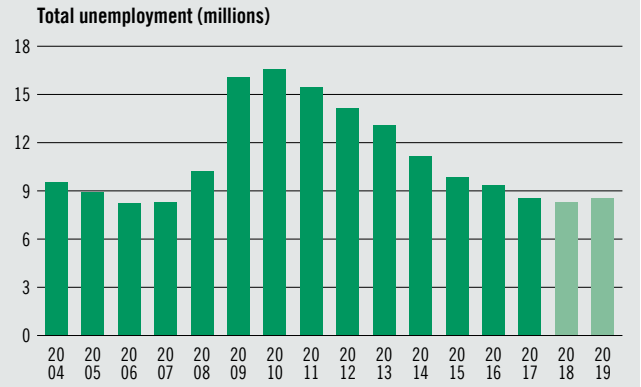


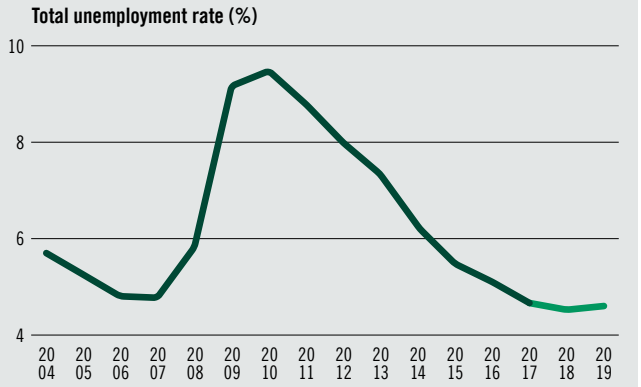


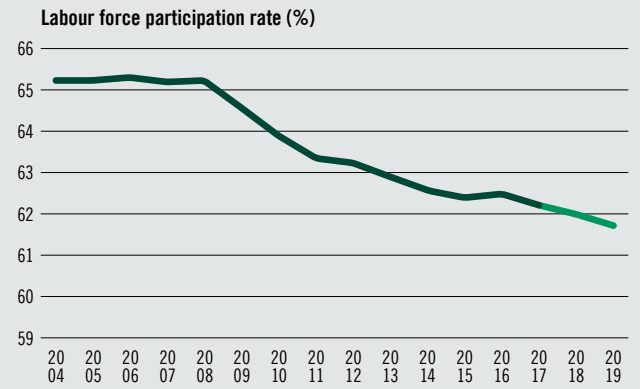


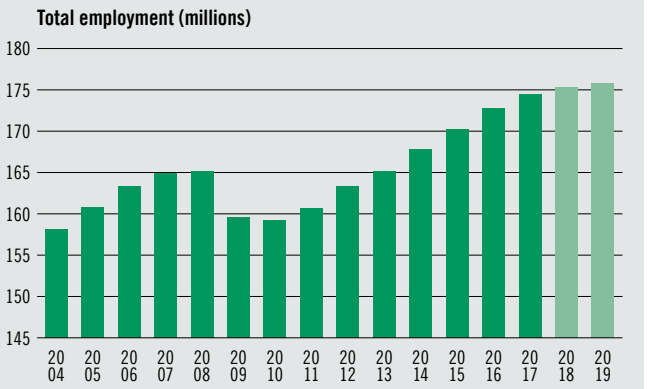


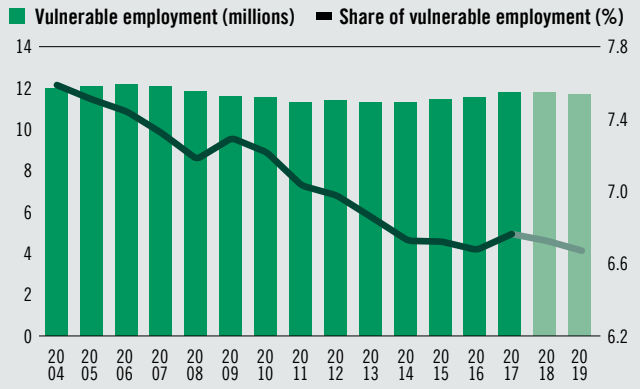
Northern America

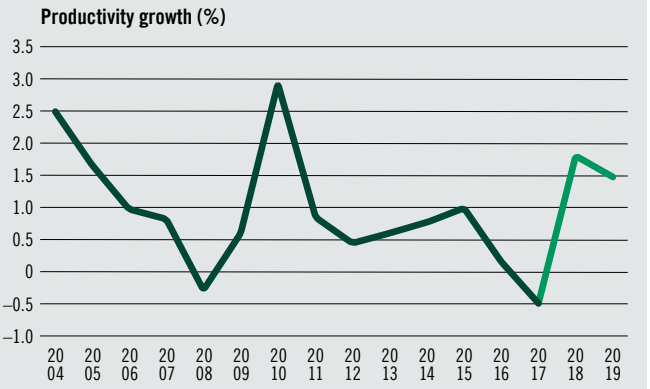


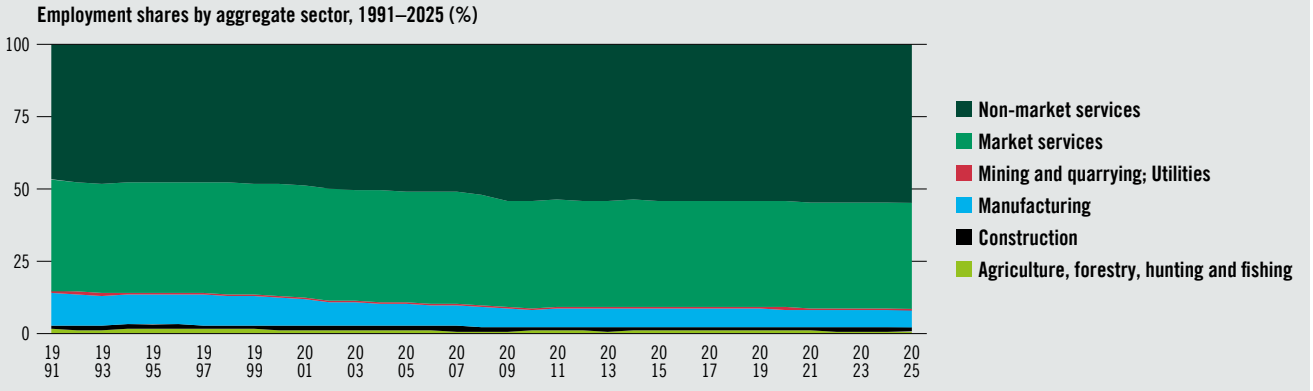




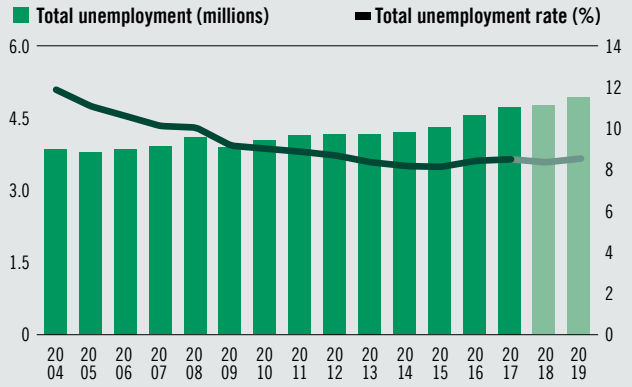


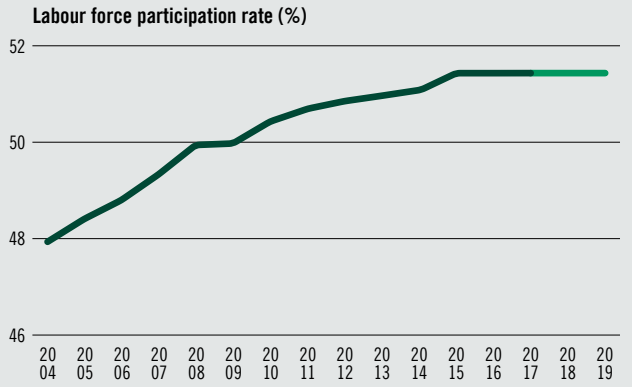


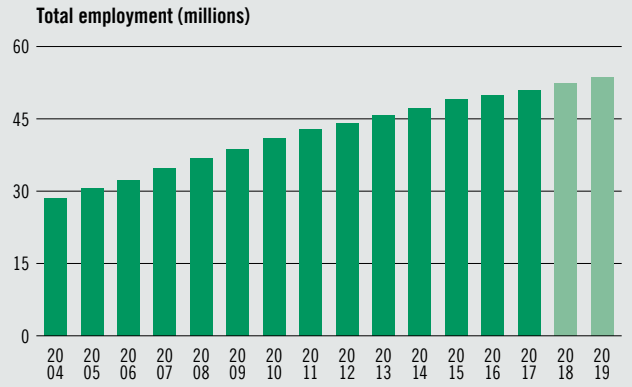


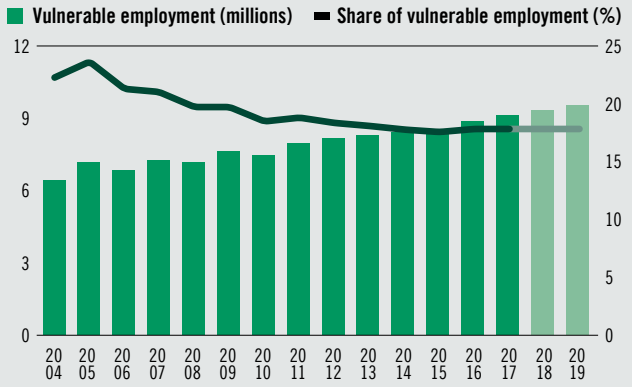


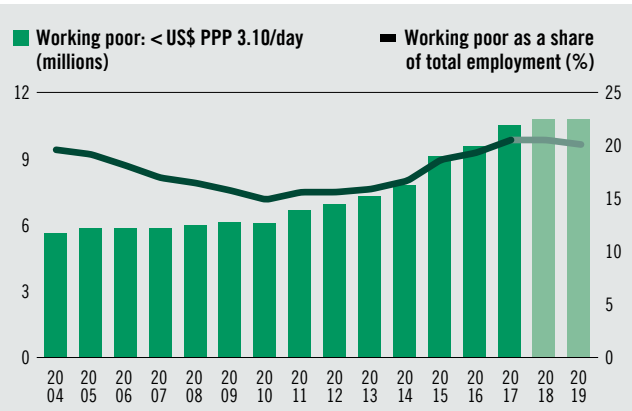
Arab States

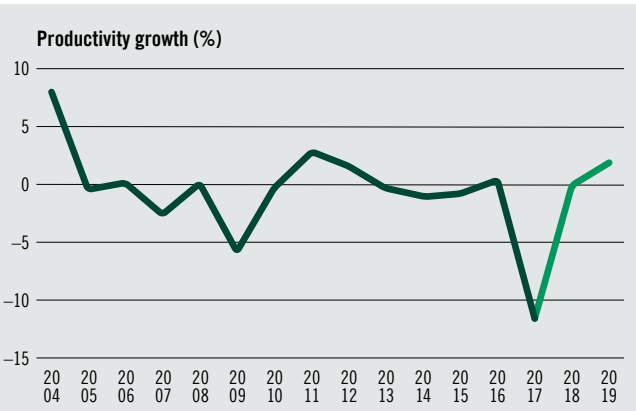

Total unemployment (millions)
Total unemployment rate (%)
6.0
4.5
3.0
1.5
0
14
12
10
8
6
4
2
0
20 04
20 05
20 06
20 07
20 08
20 09
20 10
20 11
20 12
20 13
20 14
20 15
20 16
20 17
20 18
20 19

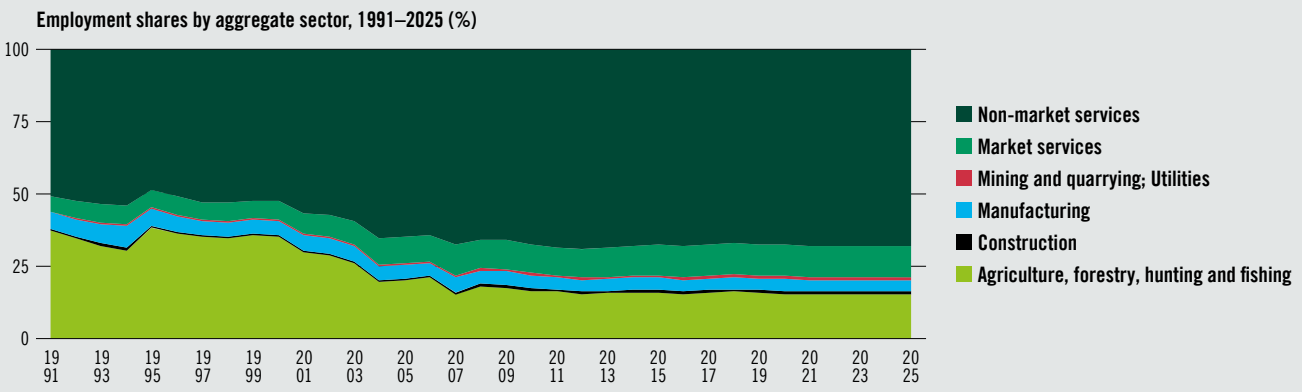

Labour force participation rate (%)
52
50
48
46
20 04
20 05
20 06
20 07
20 08
20 09
20 10
20 11
20 12
20 13
20 14
20 15
20 16
20 17
20 18
20 19


Total employment (millions)
60
45
30
15
0
20 04
20 05
20 06
20 07
20 08
20 09
20 10
20 11
20 12
20 13
20 14
20 15
20 16
20 17
20 18
20 19

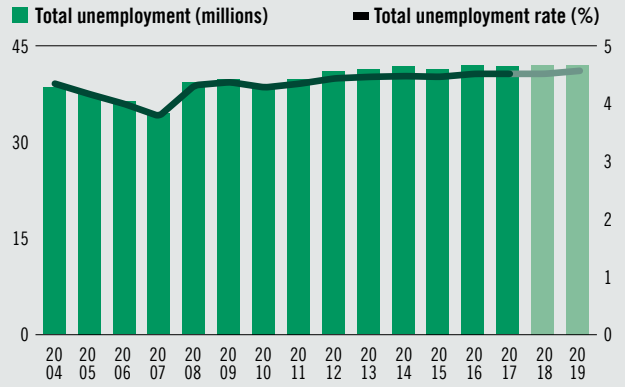

Vulnerable employment (millions)
Share of vulnerable employment (%)
12
9
6
3
0
25
20
15
10
5
0
20 04
20 05
20 06
20 07
20 08
20 09
20 10
20 11
20 12
20 13
20 14
20 15
20 16
20 17
20 18
20 19

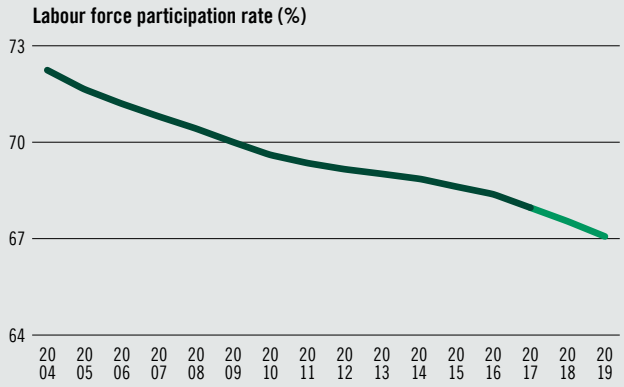

Working poor: < US$ PPP 3.10/day (millions)
Working poor as a share of total employment (%)
12
9
6
3
0
25
20
15
10
5
0
20 04
20 05
20 06
20 07
20 08
20 09
20 10
20 11
20 12
20 13
20 14
20 15
20 16
20 17
20 18
20 19

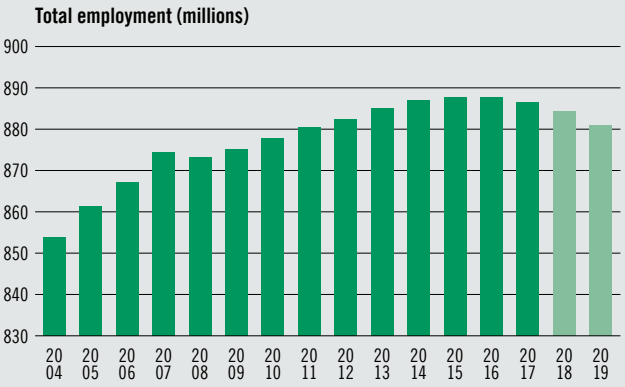

Productivity growth (%)
10
5
0
–5
–10
–15
20 04
20 05
20 06
20 07
20 08
20 09
20 10
20 11
20 12
20 13
20 14
20 15
20 16
20 17
20 18
20 19

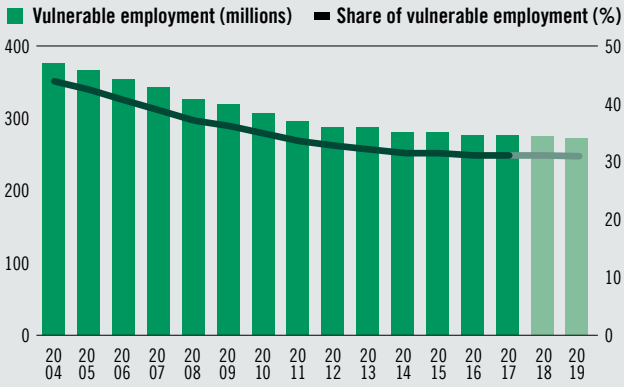

Employment shares by aggregate sector, 1991–2025 (%)
100
75
50
25
0
19 91
19 93
19 95
19 97
19 99
20 01
20 03
20 05
20 07
20 09
20 11
20 13
20 15
20 17
20 19
20 21
20 23
20 25
Non-market services
Market services
Mining and quarrying; Utilities
Manufacturing
Construction
Agriculture, forestry, hunting and fishing

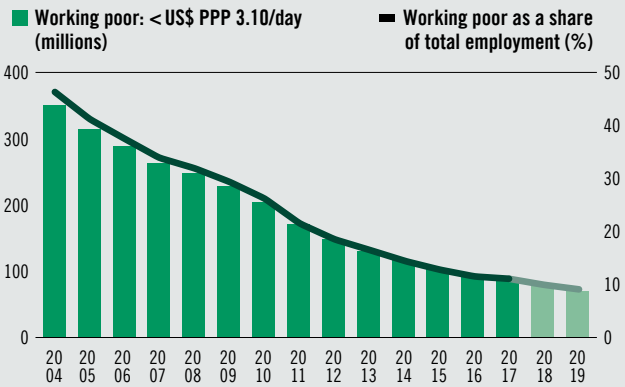
Eastern Asia

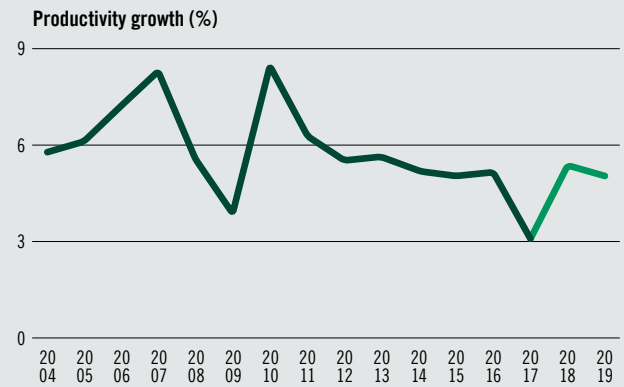


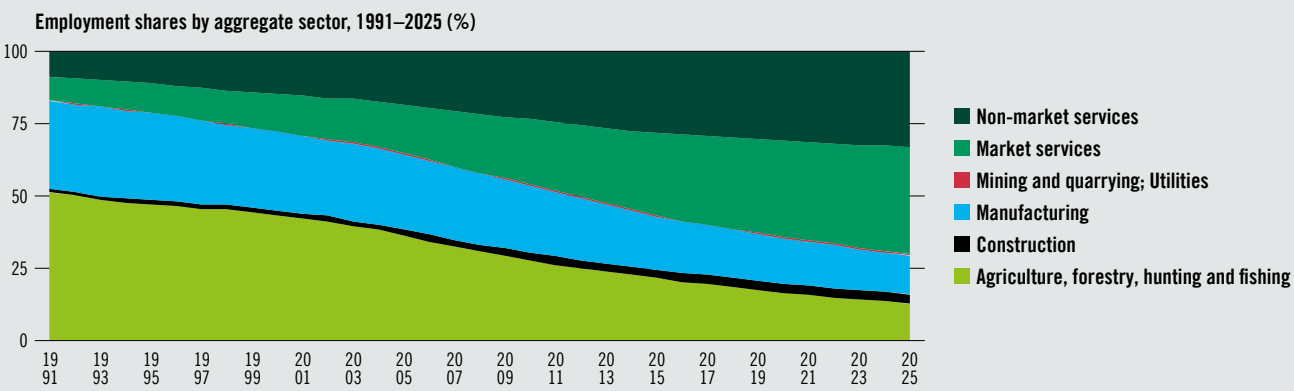




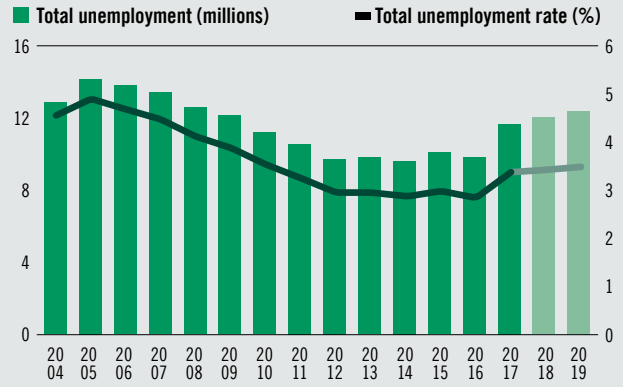


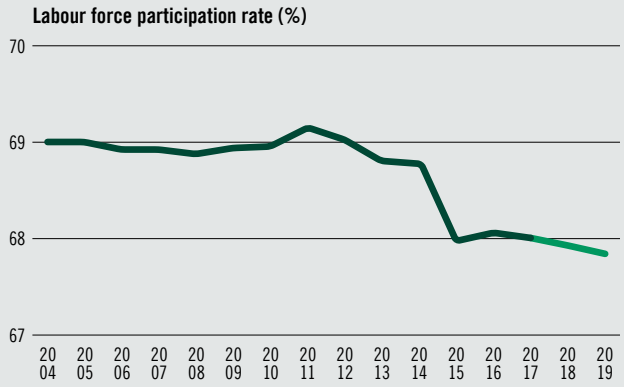


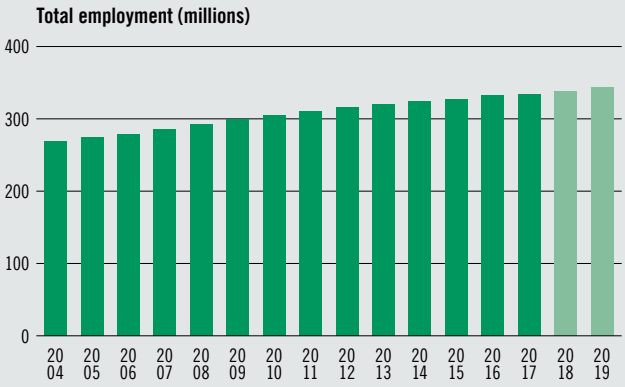


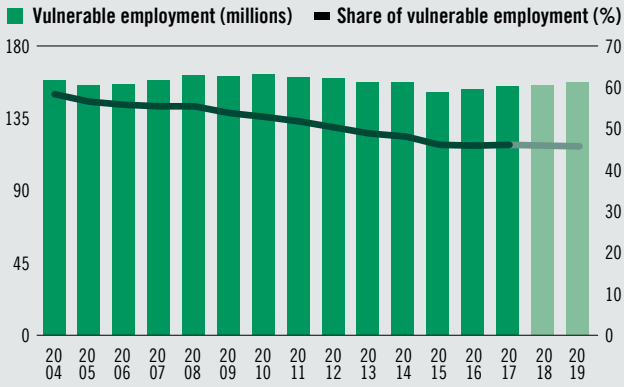


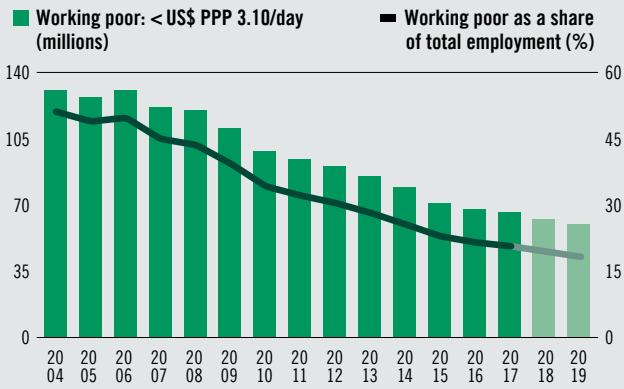
Southeast Asia and the Pacific

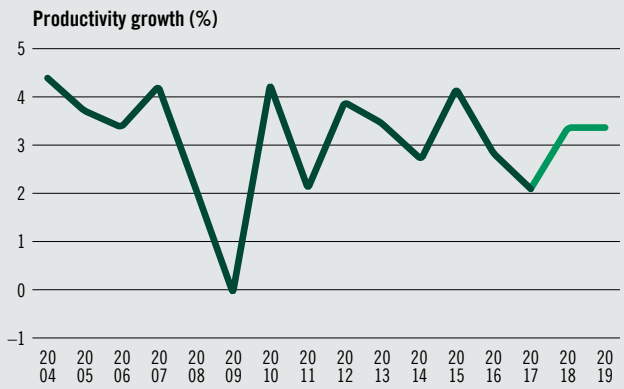


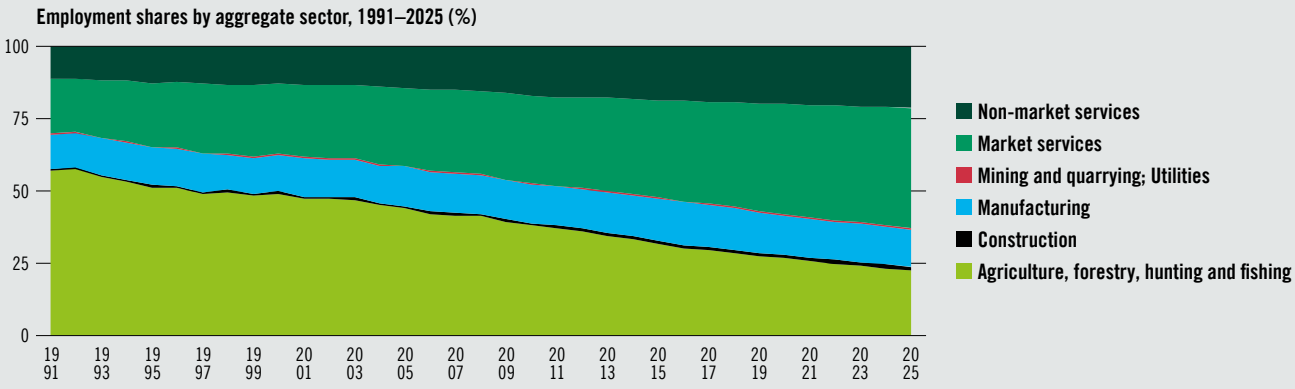




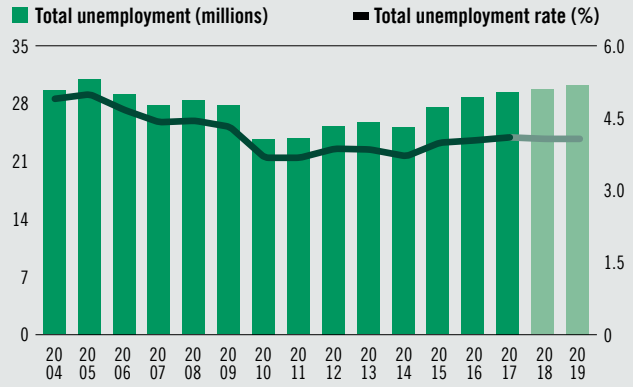


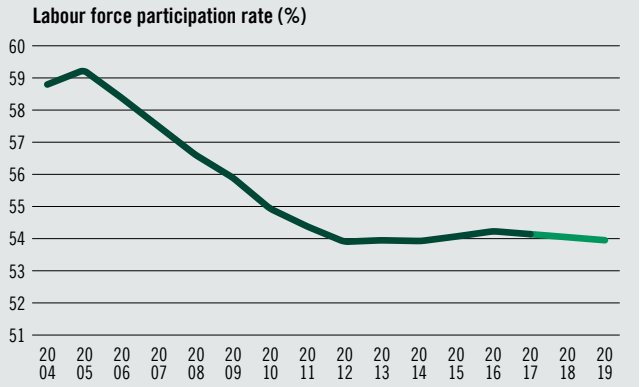


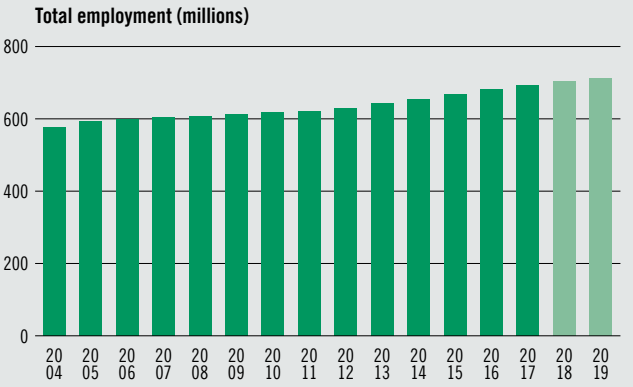


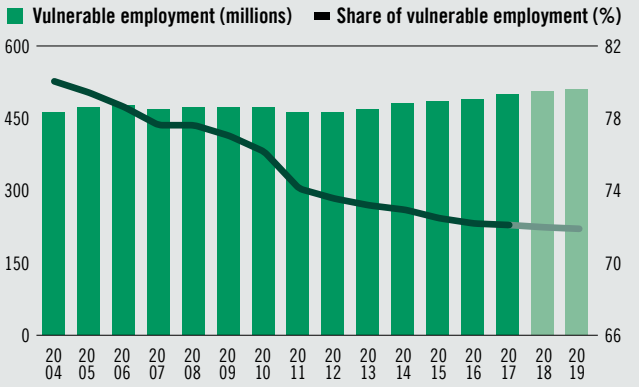


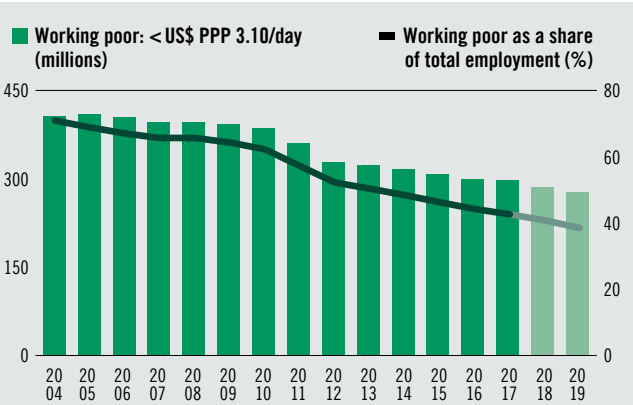
Southern Asia

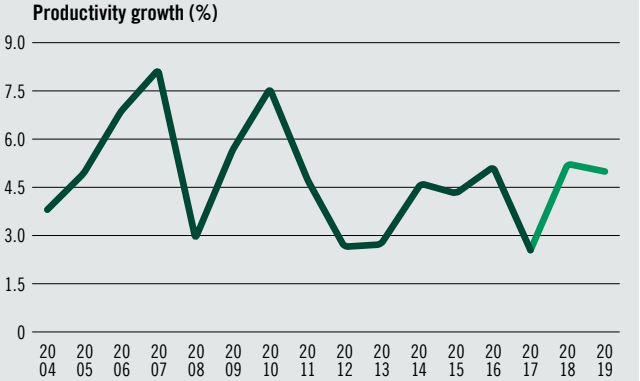


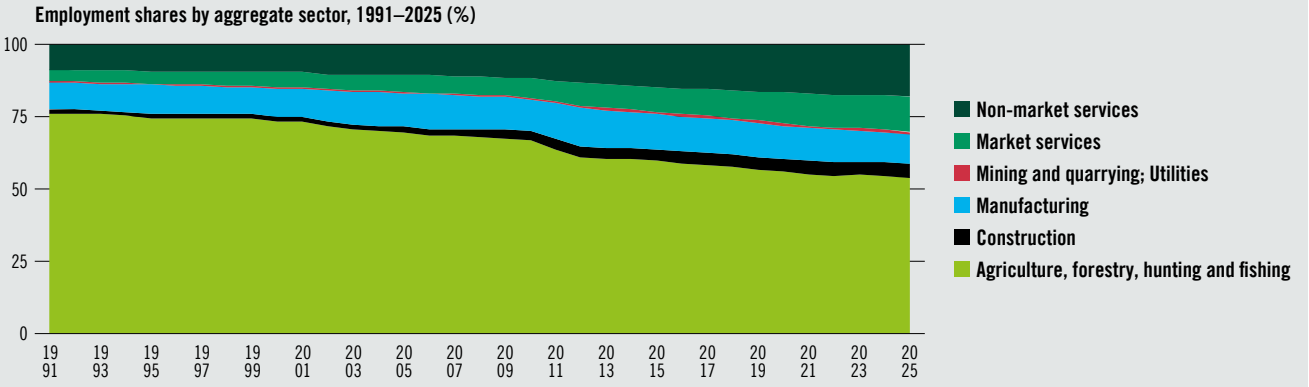






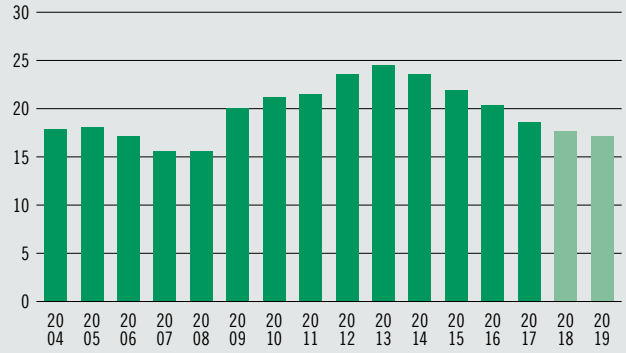




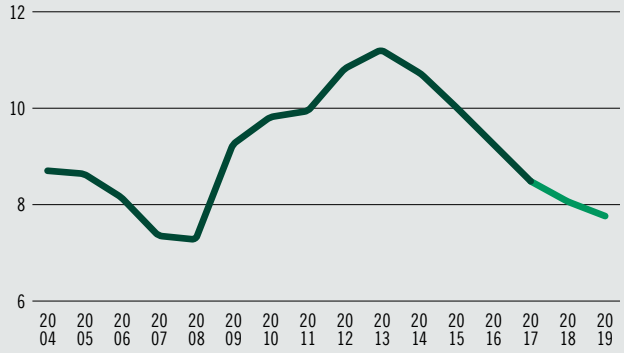


Northern, Southern and Western Europe

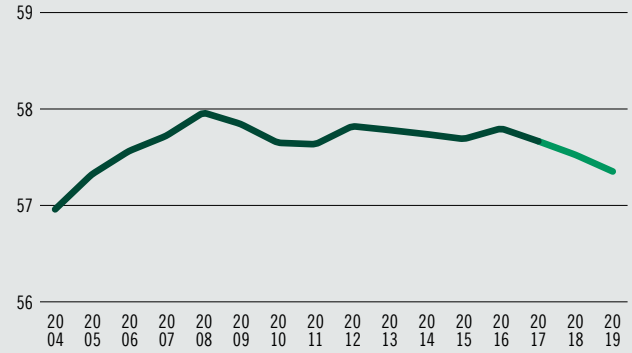
Total unemployment (millions)



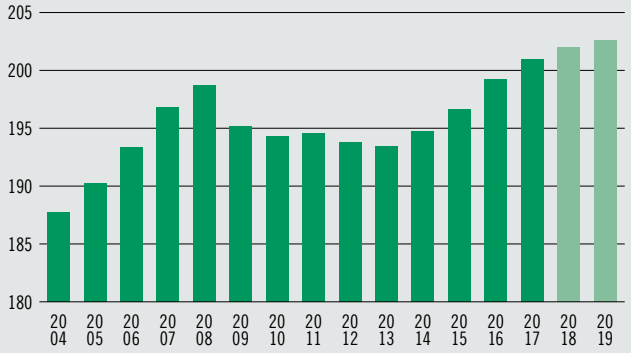
Total unemployment (rate)



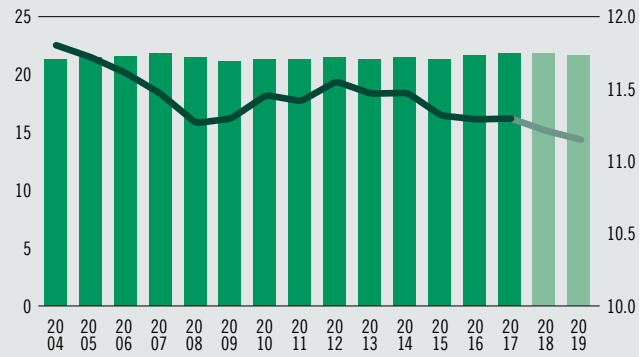
Labour force participation rate (%)



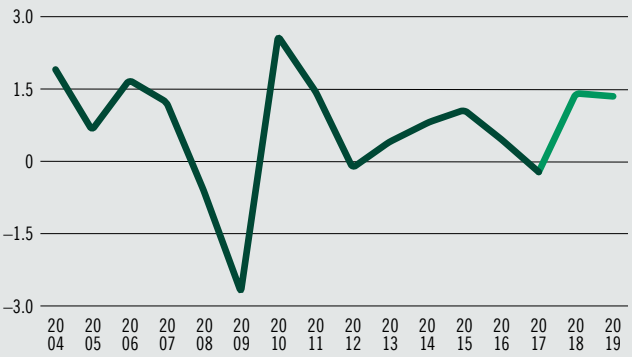
Total employment (millions)



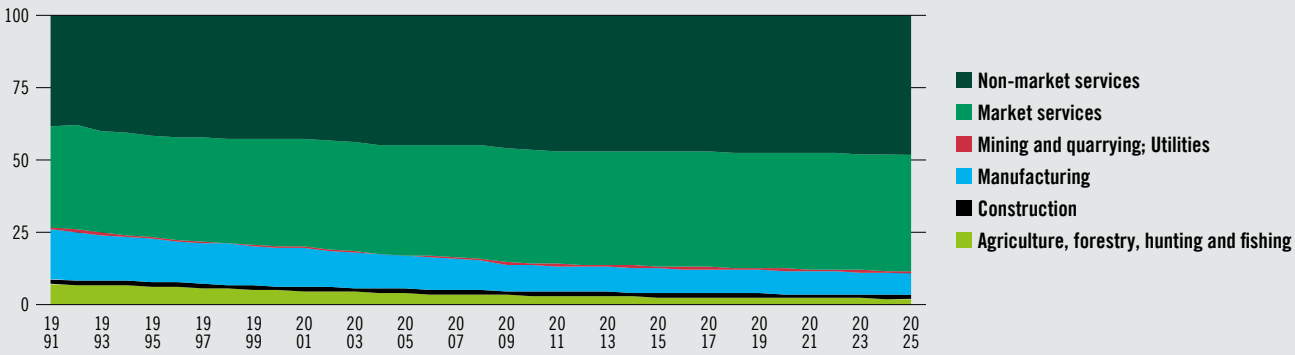
Vulnerable employment (millions) — Share of vulnerable employment (%)



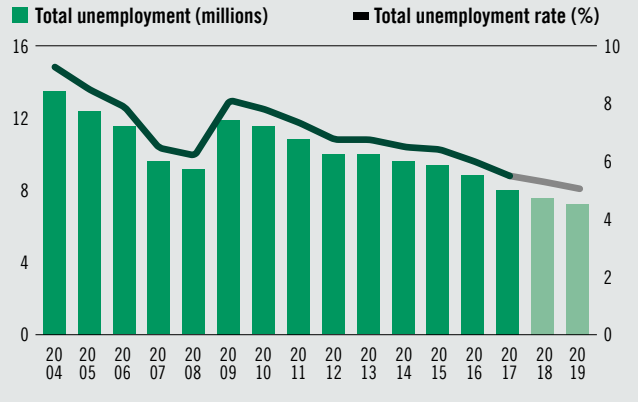
Productivity growth (%)

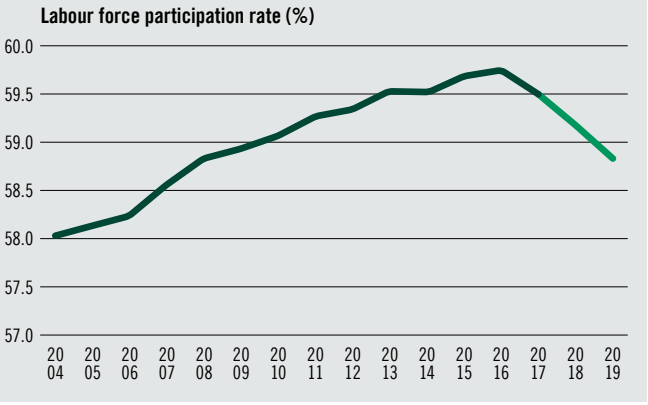


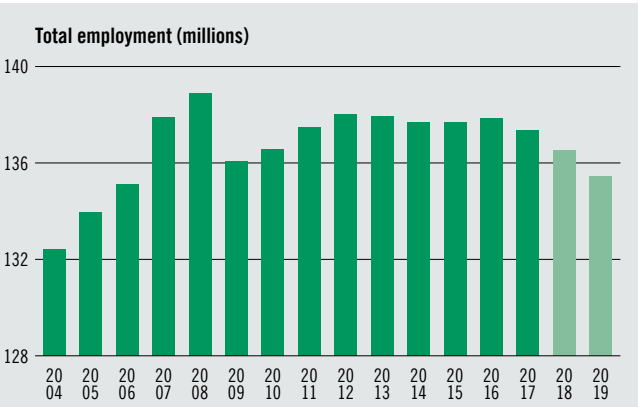
Employment shares by aggregate sector, 1991–2025 (%)

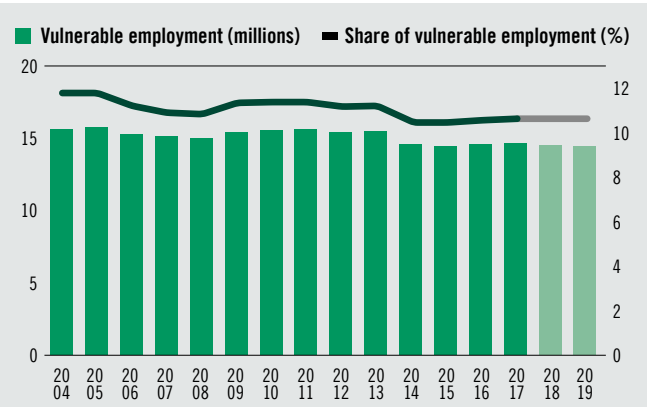


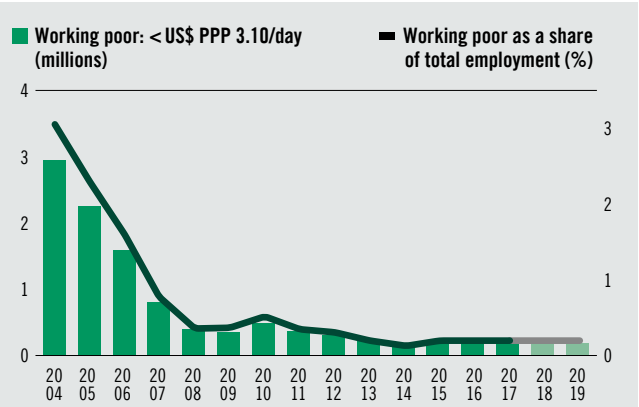
Eastern Europe

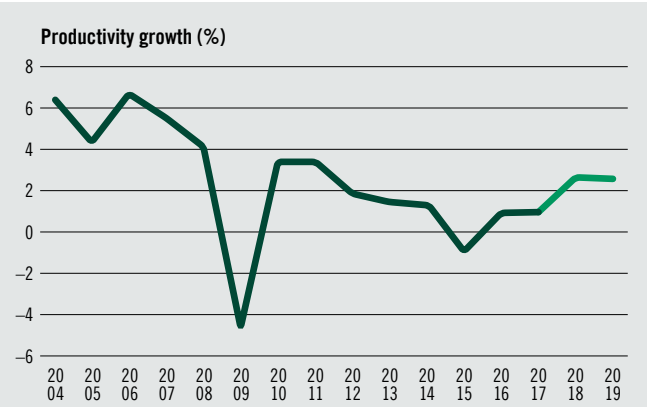


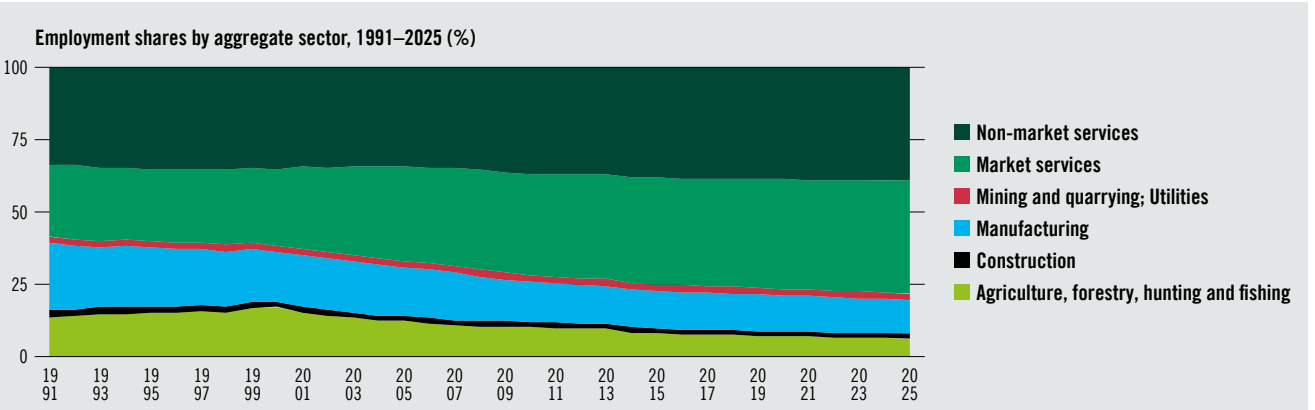




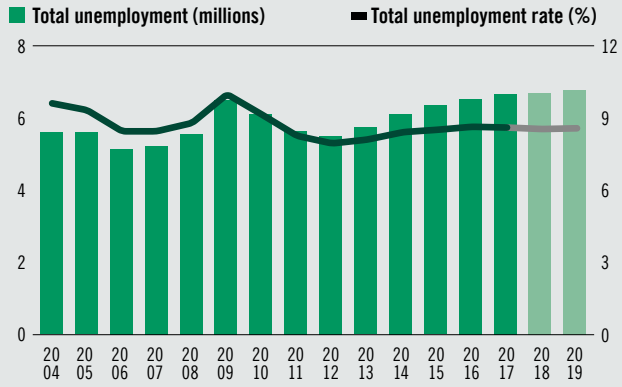


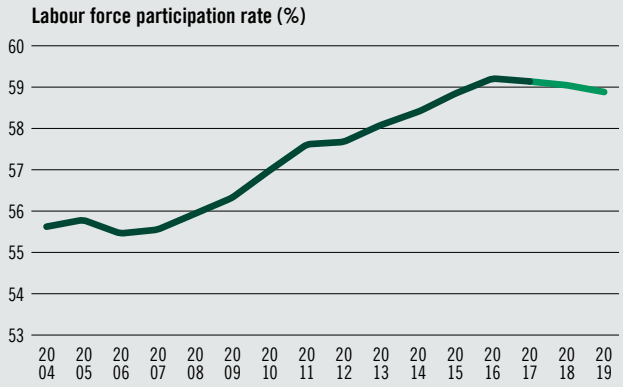


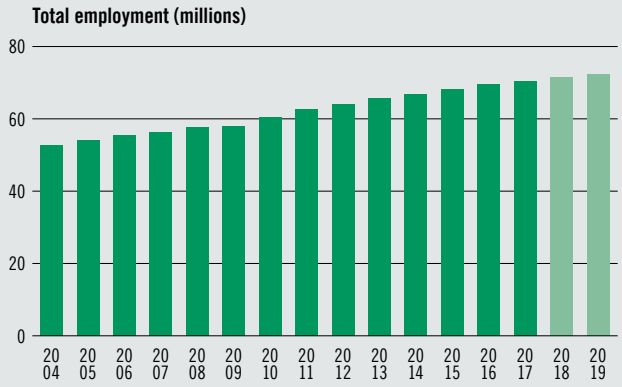


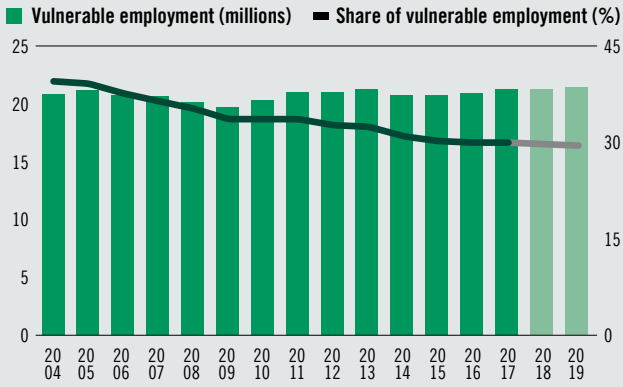


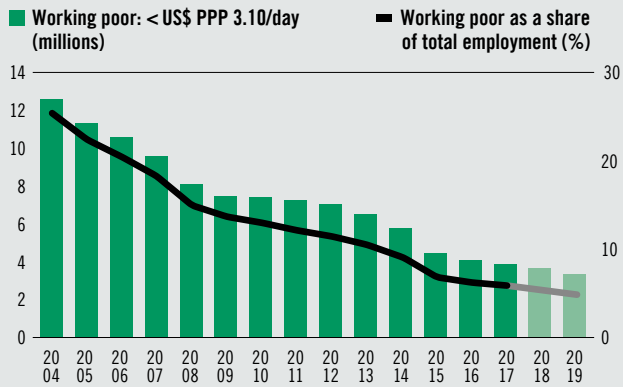
Central and Western Asia

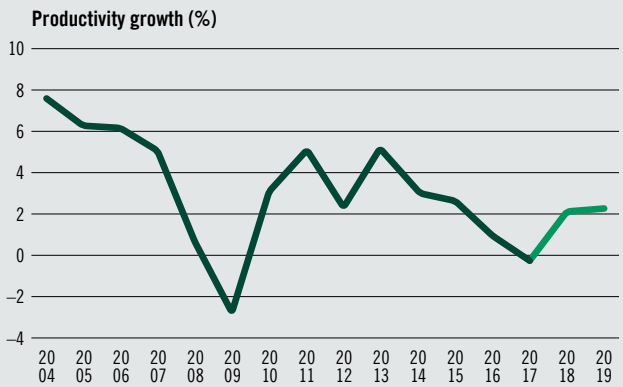


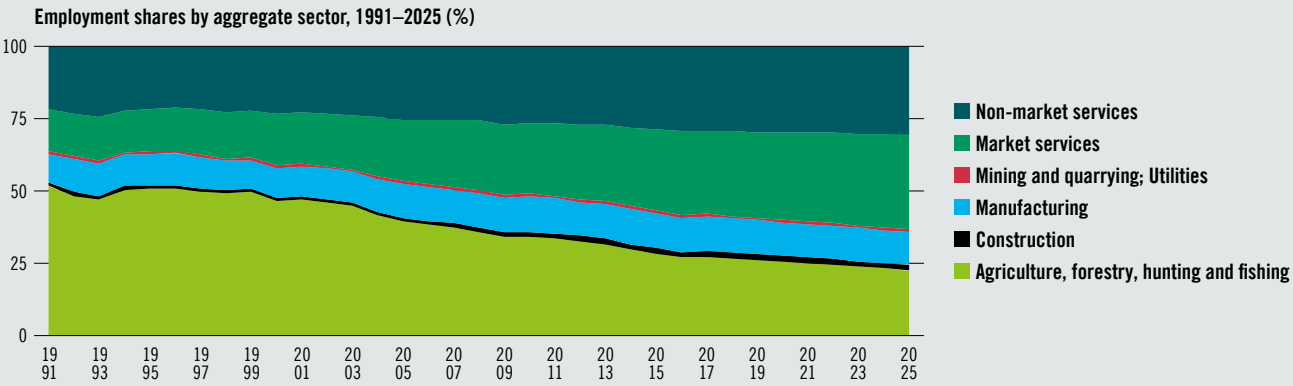












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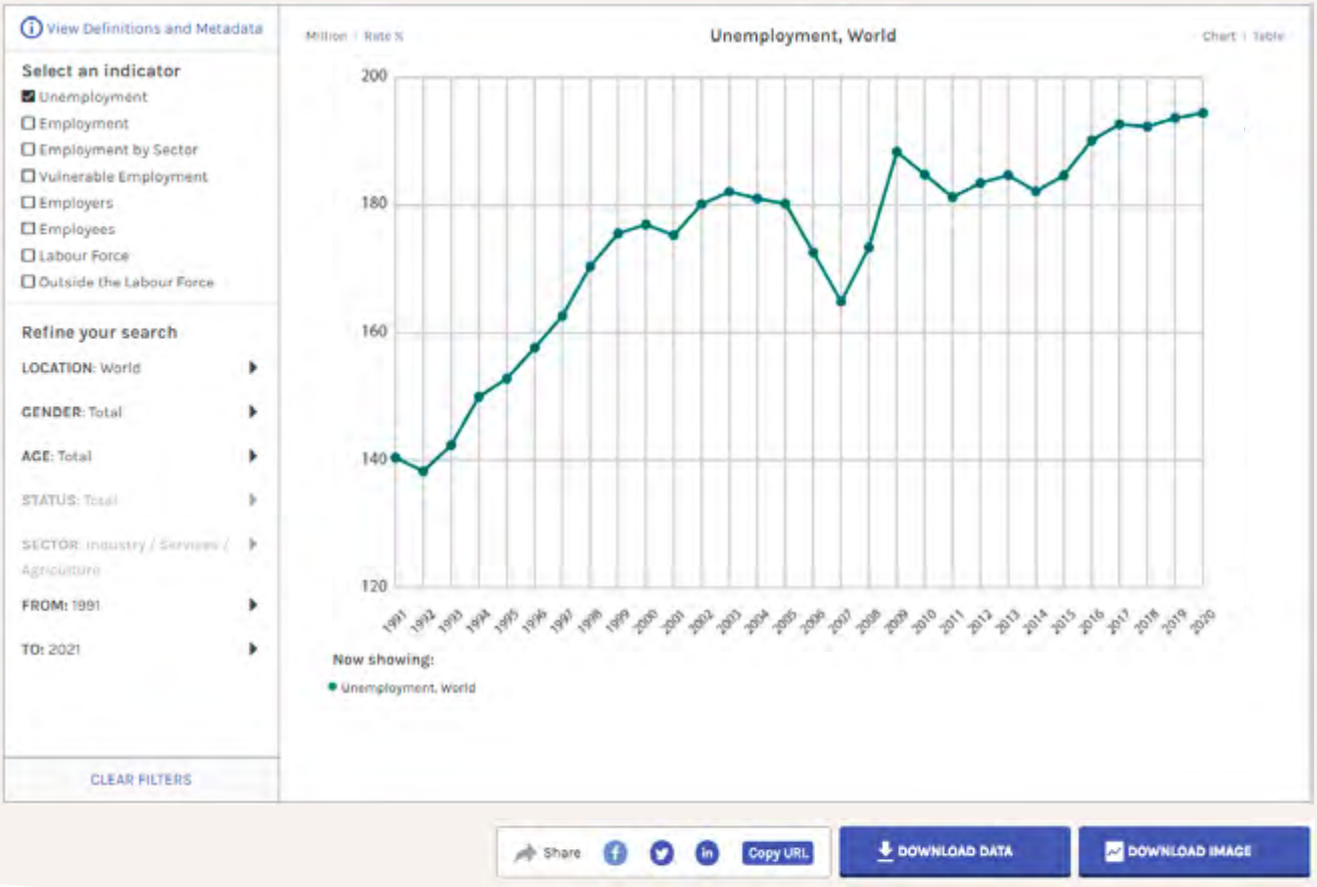

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