International Labour Organization

ILO Flagship Report

Global Wage Report

2024–25

Is wage inequality decreasing globally?

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International Labour Office • Geneva

First published 2024

ISBN: 9789220409763 (print); 9789220409770 (web PDF)
ISSN: 2305-1450 (print); 2305-1469 (online)
DOI: https://doi.org/10.54394/CJQU6666

wage differential / income distribution / trend / labour market

13.07

ILO Cataloguing in Publication Data

Also available in French: *Rapport mondial sur les salaires 2024–25: Vers une baisse des inégalités salariales au niveau mondial?*, ISBN 9789220409787 (print), 9789220409794 (web PDF); ISSN 2958-180X (print), 2958-1818 (web PDF); and in Spanish: *Informe mundial sobre salarios 2024-25: ¿Está disminuyendo la desigualdad salarial en el mundo?*, ISBN 9789220409800 (print), 9789220409817 (web PDF); ISSN 2958-1826 (print), 2958-1834 (web PDF).

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Printed in Switzerland

Produced by the Publications Production and Publishing Management Unit (PRODOC) of the ILO.
The ILO endeavours to use paper sourced from forests managed in an environmentally sustainable and socially responsible manner.
Code: DESIGN-PPM-PMSERV

Foreword

Reducing inequalities and poverty is a major challenge on the path towards social justice. Labour income is the main, if not the sole, source of income for most households in regions across the world. Therefore, what happens in labour markets matters a great deal for overall inequality. The world of work and its institutions have a distinct role to play.

More than half of the workers in the world are wage earners. This means that reducing wage inequality can contribute significantly to reducing inequalities. The key role of wages in countering inequality is acknowledged in the United Nations 2030 Agenda for Sustainable Development, including Sustainable Development Goal 10, which calls for reduced inequalities within and between countries.

While wage inequalities matter, wage levels are also instrumental to ensuring decent and dignified lives for households globally. The report shows that, after the negative growth observed in 2022, global real wage growth in 2023 and the first two quarters of 2024 returned to positive values. However, in several countries and some subregions, real wage growth has remained close to zero and even recorded negative values in recent years. The sharp decline in inflation in advanced economies has contributed to positive global real wage growth in recent years. The global average also reflects an increase in real minimum wages in 55 per cent of the 160 countries for which data are available. However, despite the rise in the global average, 45 per cent of these 160 countries witnessed minimum wages remain below inflation rates, implying lower purchasing power for a large number of low paid workers worldwide.

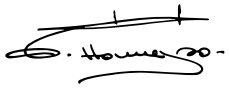
Remarkably, estimates show that for about two thirds of countries for which data are available, wage inequality has declined since the beginning of the twenty-first century. Despite this recent improvement, however, the report shows that, globally, the 10 per cent least-paid workers receive only about 0.5 per cent of the total wage bill, whereas the 10 per cent best-paid workers obtain close to 38 per cent of the same total wage bill.

When combining data on non-wage workers with data on wage workers, higher levels of income inequality appear as well as higher earning gaps between women and men, and between workers in formal and informal employment. This is particularly significant in low- and middle-income countries where non-wage workers – the majority of which are women and/or workers in the informal economy – are the predominant group in the workforce. Addressing income inequalities in the labour market, including gender pay gaps and pay gaps suffered by workers in vulnerable situations, is an effective path towards reducing household inequality and poverty. In a context of significant geopolitical instability, this would contribute to fairer societies and reduce social tensions.

Understanding the nature and extent of such inequalities is a necessary first step, and this new edition of the *Global Wage Report* provides particularly useful and new evidence to help us do so. The next step is to take action through relevant policies, such as strengthening wage policies and institutions, tackling the root causes of low pay, formalizing the informal economy, promoting gender equality and non-discrimination, and investing in strengthening public support for technological innovation and skill development.

I am confident that the empirically based recommendations highlighted in the report will help guide key stakeholders, including policymakers and social partners, in preventing and reducing inequalities. Cooperation and partnerships to generate political commitments, investments and concrete actions that support social justice in alignment with national priorities remain of the utmost importance in reducing inequality.

The ILO Global Coalition on Social Justice offers a great opportunity to join forces and put the policies aimed at preventing and reducing inequalities into action effectively, and at scale.



Gilbert F. Houngbo
Director-General

Global Wage Report

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Abbreviations

ACGR	average constant growth rate
CPI	consumer price index
ECB	European Central Bank
EU	European Union
FTE	full-time equivalent
GDP	gross domestic product
IMF	International Monetary Fund
LFS	Labour Force Survey
NEET	not in education, employment or training
OECD	Organisation for Economic Co-operation and Development
PPP	purchasing power parity
SDG	Sustainable Development Goal
SES	Structure of Earnings Survey
SME	small and medium-sized enterprise
TWB	total wage bill

Acknowledgements

The report was prepared by staff of the Inclusive Labour Markets, Labour Relations and Working Conditions Branch (INWORK) of the ILO with contributions from other ILO colleagues in Geneva and field offices, under the responsibility of Philippe Marcadent, Chief of INWORK. Patrick Belser, Giulia De Lazzari, Rosalia Vazquez-Alvarez and Ding Xu were the main authors of the report. Clemente Pignatti provided support preparing survey data for Part II of the report. Contributions to different parts of the report were provided by ILO wage specialists, including Guillaume Delautre (Cairo), Xavier Estupiñan (Bangkok), Sonia Gontero (Santiago de Chile), Elva Lopez Mourelo and Anoop Satpathy (Colombo), and Martin Weidner (INWORK). Claire Piper provided secretarial support and Manuel Andres Vega Cuberos provided assistance in the communication strategy. The ILO Publications Production Unit (PRODOC) coordinated the anonymous peer-review process, provided production project management, and developed the graphic design, including cover design and typesetting. The report was edited by John Maloy, with the support of PRODOC.

Our special thanks go to Sukti Dasgupta, Director of the ILO Conditions of Work and Equality Department.

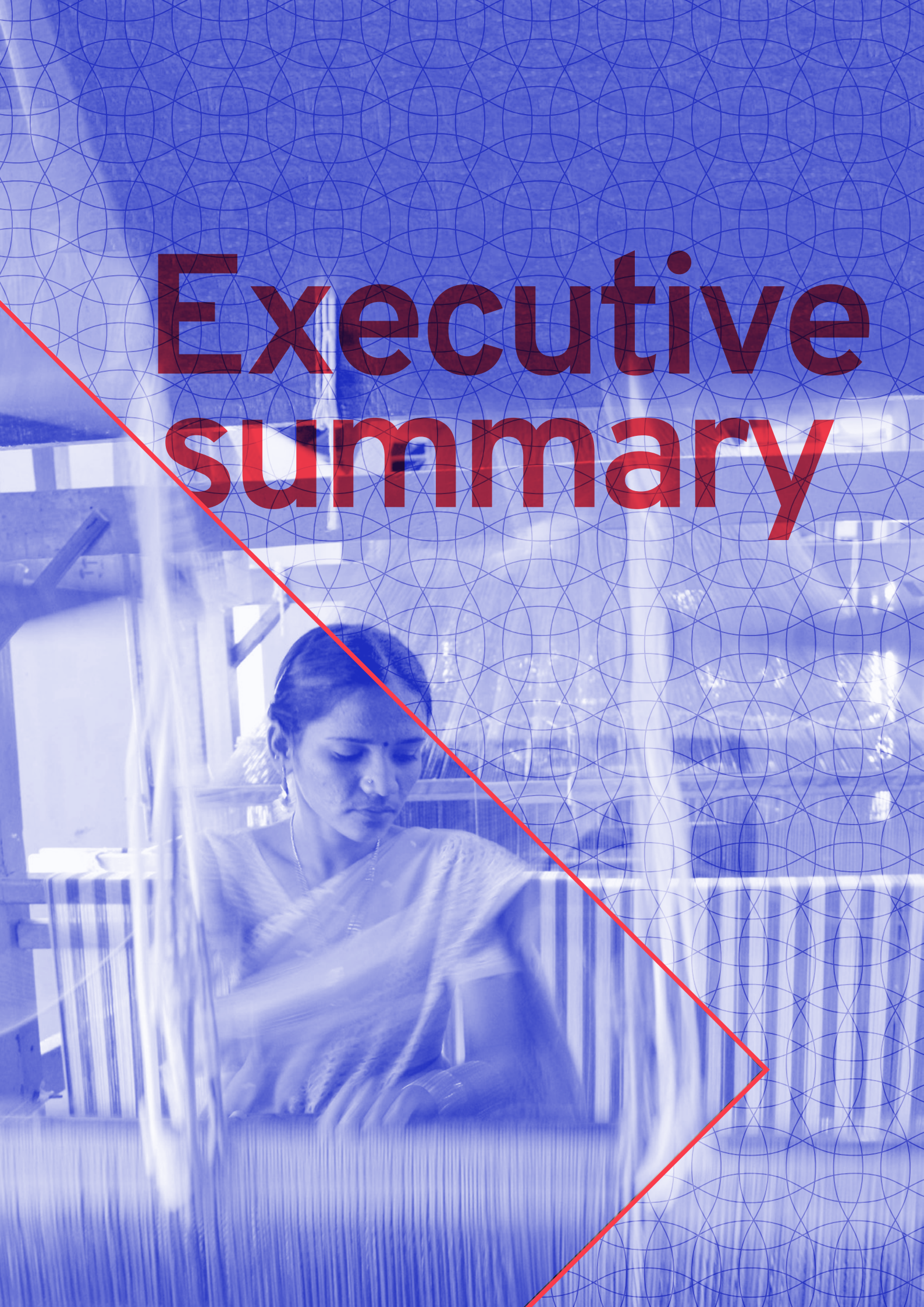
We extend our thanks to all the national statistical offices, which assisted us with our data collection efforts. We also recognize the crucial contribution of the ILO Department of Statistics and the team at ILO/SIALC (Labour Analysis and Information System for Latin America and the Caribbean) in Panama, in particular Horacio Barría, for providing data on wages for Latin America and the Caribbean.

The report would not be what it is without the invaluable input and comments by the following people on the draft of this report: Sévane Ananian, Samuel Asfaha, Alessandro Batazzi, Christina Behrendt, Celine Peyon Bista, Florence Bonnet, Umberto Cattaneo, Jae-Hee Chang, Marva Corley-Coulibaly, Rafael Diez de Medina, Franz Ebert, Ernst Ekkehard, Veronica Escudero, Matias Espinosa, Roger Gomis, Steven Kapsos, Hannah Liepmann, John Maloy, Khalid Maman Waziri, Miguel Sanchez Martinez, Yves Perardel, Iuliia Privalikhina, Shahrashoub Razavi, Ritash Sarna, Dorothea Schmidt-Klau, Pelin Sekerler Richiardi, Sergei Suarez-Dillon Soares, Catherine Saget, Yanjiao Song, José Luis Viveros Añorve and Michael Watt. Many thanks to each of them.

Last but not least, we would like to thank the two anonymous referees who peer reviewed the report, as well as all internal peer reviewers from various departments of the ILO.

Part of the report is based on data from Eurostat (European Union Statistics on Income and Living Conditions (EU-SILC) Survey, 2018). We thank Eurostat for providing these data under contract number RPP 174/2023-LFS-EU-SILC-SES. The responsibility for all conclusions drawn from these data lies entirely with the authors.

Executive summary



Global Wage Report

Part I. Recent trends in wages

This edition of the *Global Wage Report* finds that, following a period of sustained price increases that pushed real wage growth into negative territory, average nominal wages at the global level returned to growing faster than inflation. The progressive reduction of inflation started in 2023 and is predicted to have become more pronounced in 2024. This decline happened at different speeds around the globe, with price growth decelerating markedly among high-income countries, while inflation – albeit reduced – remains a harsh reality in many emerging and developing countries. Although measures taken to contain inflation had the effect of cooling down the strong post-pandemic recovery, global economic growth turned out to be resilient, reaching 3.3 per cent in 2023, and it is projected to only marginally decline to 3.2 per cent in 2024.

After falling to -0.9 per cent in 2022, global real wage growth recovered in 2023, marking an increase of 1.8 per cent. If China – whose rapid wage growth significantly impacts the global average – is excluded, global real wage growth increased from –1.5 per cent in 2022 to 1.3 per cent in 2023. A marked difference in real wage growth between advanced and emerging G20 economies persists. While advanced G20 economies registered a decline in real wages for two consecutive years (–2.8 per cent in 2022 and –0.5 per cent in 2023), real wage growth remained positive for both years in emerging G20 economies (1.8 per cent in 2022 and 6.0 per cent in 2023).

Preliminary data for the first two quarters of the year indicate that global real wage growth recorded a 2.7-per-cent increase in 2024, the largest gain in more than 15 years. When excluding China, global real wage growth in 2024 is estimated at 2.3 per cent. Also, in 2024 – and after two years of negative growth – real wage growth in advanced G20 economies returned to the positive at 0.9 per cent, while emerging G20 economies recorded an increase of 5.9 per cent.

When looking at regional level data, real wage growth continues to be heterogeneous, with average wages increasing faster in Asia and the Pacific, Central and Western Asia, and Eastern Europe compared to the rest of the world. Africa, Asia and the Pacific, and Central and Western Asia were the only regions that witnessed increases in average real wages in 2022, while average real wages decreased in all other regions, with declines ranging from –0.8 per cent in Eastern Europe to –3.7 per cent in Northern, Southern and Western Europe. In 2023, real wage growth returned to the positive in most regions, with the exceptions of Africa, Northern America, and Northern, Southern and Western Europe which experienced growth of –2,4, 0.0 and

–0.2 per cent, respectively. Except for Africa and the Arab States, where average real wages remained stable, average real wages grew in all regions in 2024, with increases ranging from 17.9 per cent in Central and Western Asia to 0.3 per cent in Northern America.

The report finds that, on average, labour productivity in high-income countries increased more rapidly than real wages over the period 1999–2024 (a total of 29 per cent versus 15 per cent). Most of the gap between the two series was generated between 1999 and 2006, after which they have evolved in parallel, except for temporary deviations during the financial crisis of 2008–09 and the COVID-19 crisis.

In 2022 and 2023, more countries than usual adjusted the level(s) of their minimum wage(s), indicating that minimum wage policies were generally responsive to the increase in inflation. However, in most cases, the changes were not sufficient to compensate minimum wage recipients for the increase in the cost of living. Using a sample of 160 countries, data reveal that close to 60 per cent of countries adjusted the value(s) of their minimum wage(s) in 2022, but in only one out of four countries did such changes result in an increase in the real value(s) of the minimum wage(s). Even though in 55 per cent of the countries in the sample the minimum wage(s) increased in real terms in 2023, in most cases the increments were not large enough to compensate for the declines in the previous two years.

Adjusting minimum wages to protect the purchasing power of low-wage earners, while also taking into account economic factors, should remain a priority. This is especially important as the report confirms that the cost-of-living crisis of 2021 and 2022 had a larger impact on low-wage earners and their families, who spend a larger proportion of their incomes on essential goods and services, the prices of which increased more rapidly than the average consumer price index.

▶ Part II. Trends in labour income inequality in the twenty-first century

Part II of the report provides global, regional and country-level analyses of wage and labour income inequality over a period spanning much of the first quarter of the twenty-first century. While wages only relate to paid employees, the concept of "labour income" includes the earnings of both wage and non-wage workers, with the latter accounting for around 48 per cent of the working population. Reducing household income inequality is an objective for many policymakers around the world. As labour income represents the main source of livelihood for most households worldwide,[1] labour income inequality is an important determinant of overall household income inequality. Part II of the report starts by investigating wage inequality first and then expands the analysis to study labour income inequality. The report uses different measures of inequality, namely the share of workers who are low-paid, the Palma ratio[2] and four measures based on decile ratios.

High levels of wage inequality persist in countries around the world

Using recent survey data on hourly wages for 82 countries, which together account for about 76 per cent of the global population of wage employees, the report shows that the level of wage inequality differs

1. Household income can include one or more of the following items: income from labour, investment income (for example, capital gains or gains from renting property), social security benefits, pensions, retirement payments, welfare payments and remittances.
2. The Palma ratio is a measurement of inequality calculated by dividing the total hourly wages of the top 10 per cent of the wage distribution by the total hourly wages of the bottom 40 per cent of the wage distribution.

significantly across countries, with low-income countries displaying, on average, the highest level of wage inequality and high-income countries the lowest. These findings remain consistent when different measures of wage inequality are used. In low-income countries, on average, almost 22 per cent of wage workers are paid less than half of the median hourly wage of their country, while the proportion declines to 17, 11 and 3 per cent in lower-middle-income, upper-middle-income and high-income countries, respectively. On average, wage inequality among middle-to-top earners is higher than within the lower half of the wage distribution. This finding has important policy implications, as different policies are likely to be effective at reducing wage inequality at distinct points along the wage distribution.

In all country income groups analyzed, women and workers in the informal economy are overrepresented at the low end of the wage distribution and, therefore, among the group classified as low-paid wage workers. The situation of migrant workers varies depending on the income level of the host country. Migrant wage workers are overrepresented among low-income wage workers in upper-middle-income and high-income countries, while in low-income and lower-middle-income countries, migrants are overrepresented at the top end of the wage distribution. However, this may not take into account the situation of refugees, who may not be included in the statistics used in the report. In low-income and middle-income countries, informality among low-wage workers is above 90 per cent, while the proportion ranges between 49 and 75 per cent in the overall population of wage employees. Due to data limitations of the surveys used, the report does not include estimates for informality in high-income countries.

Estimating the gender wage gap at different deciles of the wage distribution reveals that men earn more than women in all country income groups and across the entire wage scale. Among lower- and upper-middle-income countries, the gender wage gap is higher at the low end of the distribution (where women are more likely to be employed in low-paid occupations and sectors with high levels of informality), and lower at the top end of the distribution (where a minority of highly educated women earn high wages, possibly in the public sector where pay is likely more equitable). In high-income countries, the gender wage gap tends to be lower at the bottom end of the wage distribution than at the top.

Declines in within-country wage inequality prevail in the twenty-first century

In a sample of 72 countries, which represent about 73 per cent of wage employees at the global level, the report reveals that approximately two thirds of these countries witnessed reductions in wage inequality since the beginning of the twenty-first century. The finding remains similar irrespective of the measure of inequality used. While predominant across all country income groups, declines in wage inequality have been more pronounced among low-income and lower-middle-income countries. Depending on the measure of inequality used, the average annualized decrease in wage inequality ranges between 0.7 and 0.3 per cent in high-income countries, between 1.3 and 0.3 in upper-middle-income countries and between 9.6 and 3.2 in low-income countries. The annual change in wage inequality in lower-middle-income countries is close to zero, ranging from a decrease of 0.9 per cent to an increase of 0.3 per cent, depending on the measure of inequality considered. At the global level the average decline ranges between 1.7 and 0.5 per cent a year.

With few exceptions, the decline in wage inequality happened both at the upper and lower tails of the wage distribution. On average, however, inequalities fell more in the top half than in the bottom half of the wage distribution. At the global level, wage inequality as computed by the D9/D5

ratio[3] (which measures wage inequality at the upper tail of the wage distribution) fell, on average, by 0.6 per cent annually. If the D5/D1 ratio is used (which measures wage inequality at the lower tail of the wage distribution), it fell by 0.5 per cent annually. Analysing real wage growth across deciles of country-specific wage distributions reveals that, in every country income group, real wage growth was, on average, faster at bottom deciles, slower at deciles around the middle, and even slower at progressively higher deciles. This finding is in line with the decrease in wage inequality.

The reduction in wage inequality in the global wage distribution

The 2021 global wage distribution, which ranks hourly wages of employees across the world after converting them into a common currency,[4] unveils high levels of wage inequality. The distribution shows a large proportion of wage workers concentrated at the very low end of the distribution and a small minority earning progressively higher wages. In 2021, at the global level, the bottom 10 per cent of wage workers earned less than US$250 PPP per month for full-time work, while the top 10 per cent of wage workers earned above US$4,199 PPP per month for full-time work. Median workers in the global wage distribution earned US$846 PPP per month for full-time work.

While the global wage distribution treats all wage workers as if they belonged to the same global country, in practice, wage workers from low-income, middle-income and high-income countries are highly concentrated at the bottom, middle and top of the global wage distribution respectively. Important differences exist in wage levels between wage workers belonging to different country income groups, as confirmed by the median wages for low-income, middle-income and high-income countries, measured at US$201, US$630 and US$3,333, all in PPP terms respectively. This means that the purchasing power of the median wage earner in low-income countries is about 6 per cent of the purchasing power of the median wage earner in high-income countries. In the case of middle-income countries, the purchasing power of the median wage worker amounts to less than 20 per cent of the purchasing power of the median wage earner in high-income countries. These remarkable disparities between country income groups explain the high level of wage inequality observed in the global wage distribution.

Comparing the 2021 global wage distribution with its 2006 equivalent, the estimates show that, at the global level, real wages increased across the distribution in the period considered, while wage inequality decreased. The median real wage increased from US$525 PPP per month for full-time work in 2006 to US$825 PPP per month in 2021, while the level of wage inequality, as measured by the D9/D1 ratio, decreased by 28 per cent. Looking at the evolution of wage inequality in the upper and lower half of the global wage distribution reveals that the overall reduction in wage inequality has been driven by a decrease in upper-tail inequality (as measured by the D9/D5 ratio) of 35 per cent in the period considered. On the other hand, lower-tail wage inequality (as measured by the D5/D1 ratio), actually increased by 11 per cent during the same period.

Adding non-wage workers to the analysis increases the level of labour income inequality

3. The ratios here refer to the ratios between deciles along the wage distribution. So, for example, the D9/D5 ratio is calculated by dividing the wage earned at the upper limit of the ninth decile (90 per cent mark) of the wage distribution by the median wage (that is, the upper limited of the fifth decile, or 50 per cent mark).
4. Wages are converted to international dollars (US$ PPP) using purchasing power parity conversion factors. PPP conversion factors convert different currencies into a common currency and, in the process, equalize their purchasing power by controlling differences in price levels between countries.

In low- and middle-income countries analysing labour income inequality – rather than wage inequality – provides a more complete and policy-relevant measure. This is because non-wage workers – that is, employers, own-account workers, contributing family workers or workers in cooperatives – represent a large proportion (and, in some cases, the majority) of workers. Ideally, the study of labour income inequality should include all non-wage workers. However, due to data limitations, contributing family workers are excluded from the analysis, which is likely to lead to an underestimation of labour income inequality and, among other things, the under-representation of women among the low-earning group.

Using the latest available data from around 2020 from about 50 countries shows that the dominant status in employment in low- and middle-income countries is that of non-wage workers, whereas in high-income countries, non-wage workers are a minority. In low-income countries, own-account workers and contributing family workers – the majority of whom are women – are the dominant categories, and although there are wage workers in all deciles, wage workers are predominantly located in the upper half of the labour income distribution. In a majority of lower-middle-income countries, the share of own-account workers is higher than that of wage workers, with the latter accounting for about 30 to 40 per cent of all workers across most deciles of the labour income distribution. In upper-middle-income countries, wage workers – who accounts for 50 to 90 per cent of all workers – represent the majority of workers in most deciles of the labour income scale.

In most countries, the allocation of men and women is visibly unequal across the labour income distribution. First, in the vast majority of countries, across deciles the proportion of women in wage employment is lower than that of men. Second, also in most countries, the share of men in wage employment increases as we move from lower to higher earnings across the labour income distribution. Additionally, compared to the gender wage gap, the gap in hourly earnings between women and men increases in all country income groups when non-wage workers are added to the computation. Overall, the estimates confirm that in low- and middle-income countries a large fraction of women make a living as own-account workers, a status that is often associated with employment in the informal economy, where workers face worse forms of working conditions.

When comparing formal versus informal employment, the data show that, for most countries, formal wage employment is at the top half of the labour income distribution. In contrast, in about all emerging and developing countries included in the report, own-account workers are overwhelmingly in informal employment and located mostly at the bottom half of the labour income distribution. As was the case with the gender pay gap, the earnings gap between workers in formal and informal employment also increases when adding non-wage workers into the computation, particularly in low- and upper-middle-income countries. Altogether, the evidence suggests that in low- and middle-income countries workers in informal employment are own-account workers at the lower end of the labour income distribution, hence confirming that informal employment is clearly associated with poorer working conditions.

Considering that non-wage workers are disproportionately located at the low end of the hourly labour income distribution, and with an overrepresentation among them of women and workers in the informal economy, it is not surprising to find that measured inequality increases when including non-wage workers in the computation. This is the case for the majority of countries in the three country income groups considered in the analysis: low-income, lower-middle-income and upper-middle-income countries). Thus, in low-income countries, where the estimates showed the share of wage workers who are low-paid ranges between 17 and 26 per cent, the addition of non-wage workers increases the share of low-paid workers to between 19

and 47 per cent. A similar comparison shows that in lower-middle-income countries the share of low-paid workers ranges between 3.4 and 28 per cent when only wage workers are considered but increases to between 5 and 51 per cent when non-wage workers are included. Similarly, among upper-middle-income countries the share of low-paid wage workers is between 2 and 29 per cent, but this shifts to between 5 and 41 per cent when non-wage workers are added to the computation. When using other measures of inequality, the results lead to similar conclusions.

Even though measured inequality increases when adding non-wage workers into the computation, data show that in most countries in each of the three income groups considered – and particularly in lower-middle- and upper-middle-income countries – labour income inequality has declined in the first quarter of the twenty-first century. For example, in lower-middle-income countries the decline in the share of low-paid workers ranged between 4 and 11 per cent annually. In upper-middle-income countries the decline in the share of low-paid workers ranged between 0.1 and 11 per cent per annum. Estimates of the change in the Palma ratio led to equivalent results.

▶ Part III. Moving forward

While different measures of inequality support the finding that wage and labour income inequality have declined in a majority of countries since the beginning of the century, data challenges in measuring and estimating the change in inequality call for more research to help confirm this finding. Across the world, a majority of national statistical offices collect data that can be used to analyse inequalities, such as through labour force surveys, establishment surveys and/or household income and expenditure surveys. These data represent an important source of information to study recent inequality trends. However, these different data sources have their strengths and weaknesses, and the frequency of data collection understandably varies from country to country. In future, more research will be needed to better understand global and regional trends in wage and labour income inequality, and to identify the drivers behind these changes.

The report shows that, despite the observed decline in wage inequality during the first quarter of the twenty-first century, the existing levels of wage inequality – and, to an even greater extent, the existing levels of labour income inequality – remain unacceptably high. In high-income countries, where a large majority of workers are wage earners, the decline in wage inequality has contributed to reducing overall household income inequality. In low-income countries, wage earners still represent a minority among all workers, whereas, in a large number of middle-income countries, wages earners represent less than half of total employment. Our analysis of the global wage distribution shows that, even if wage inequality at the global level has declined since the beginning of the century, wage inequality increased at the bottom end of the wage distribution, with this being driven by low real wage growth among low-income countries. Future reductions in global wage inequality will depend on the improvement of wages in these low-income countries. When broadening the picture to include the many millions of non-wage workers, our findings indicate that measures of labour income inequality massively increase.

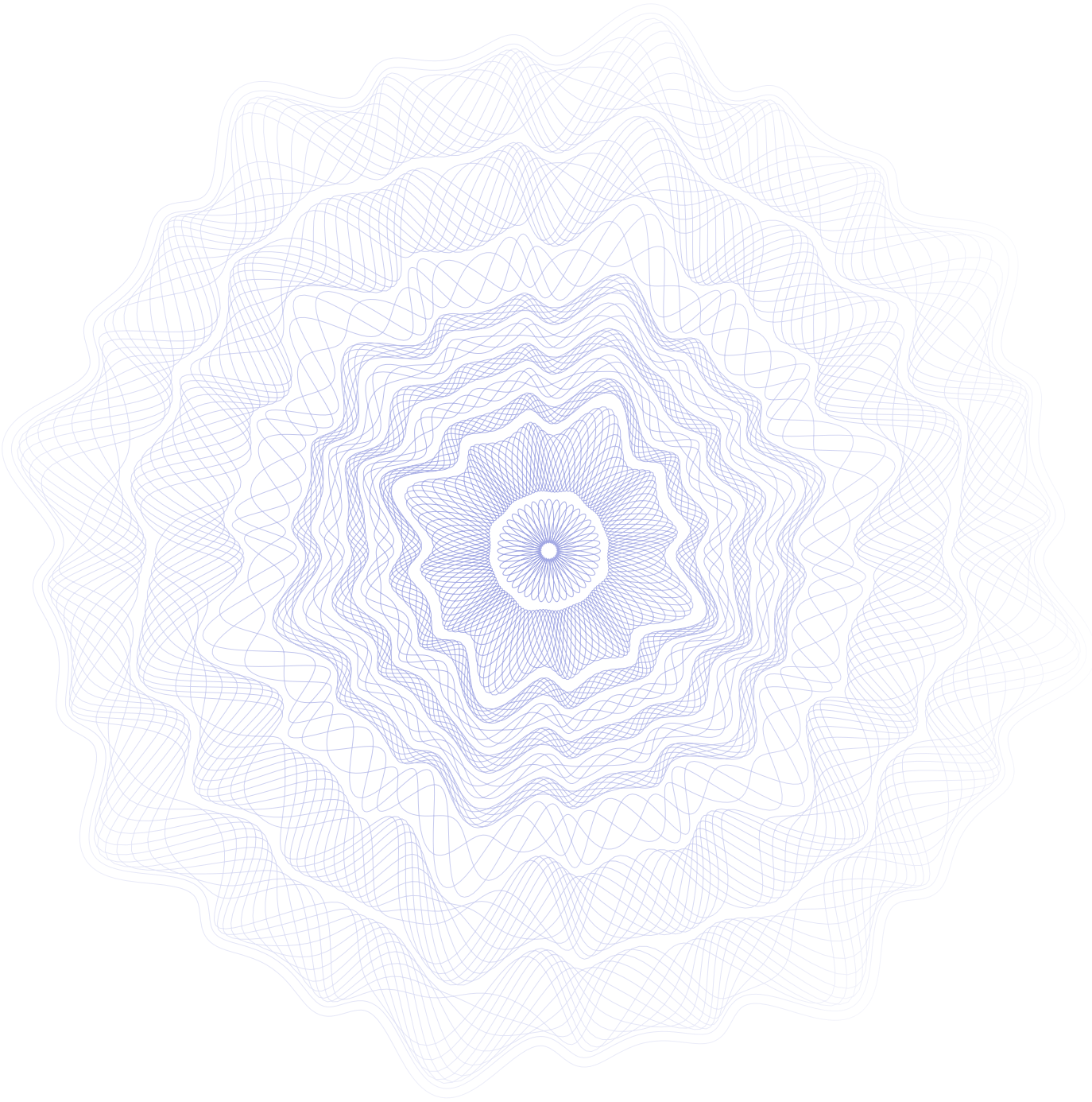
National strategies to reduce wage inequality should consider strengthening wage policies and institutions, as well as tackling the root causes of low pay. According to the recent ILO tripartite Meeting of Experts on Wage Policies, including Living Wages:

- collective bargaining and/or statutory minimum wage fixing through tripartite social dialogue should be the proper modality for setting and adjusting wages;

- both the needs of workers and their families, as well as economic factors, should be considered in setting wages;
- wage policies and wage-setting mechanisms should promote gender equality, equity and non-discrimination;
- robust data and statistics should be used for an evidence-based approach; and
- national circumstances and root causes of low pay should be considered.

Hence, national strategies should go beyond the realm of wage-setting alone and include a broader range of factors, such as productivity growth – which can be achieved, for example, through the creation of an enabling environment for entrepreneurship and sustainable enterprises, improved access to finance, as well as strong public support for technological innovation and skills development. At the same time, strong and effective labour market institutions and social dialogue can help to ensure that productivity growth translates into wage growth, particularly for those at the low end of the wage distribution. Specific national circumstances call for different policy actions to reduce wage inequality. At the country level, improved data, together with in-depth studies to understand the root causes of inequality and their evolution in the specific country context, would be instrumental in designing evidence-based policies.

Lastly, reducing household income inequality also requires the redistribution of income through a country's system of taxes and social transfers. The amount of redistribution through taxes and transfers depends on many factors, including the amount of taxes levied and distributed, the progressivity of taxation systems (that is, the extent to which high-income earners pay a larger share of their incomes in taxes), and the extent to which transfers benefit low-income households more than high-income households. In developing countries, however, there is relatively limited scope for redistribution through taxes and transfers because of the large share of own-account workers, whose labour earnings – as this report shows – are even lower than those of wage workers and who overwhelmingly work in the informal economy. Hence the need for policies and measures that jointly promote productivity, decent work and the formalization of the informal economy.



Introduction

The *Global Wage Report 2024–25* comes after a period of sustained inflation, which saw negative average global real wage growth in 2022, for the first time since the beginning of the series in 2006. Starting from 2023, inflation progressively moderated, but at different speeds around the globe, with price growth decelerating more markedly in advanced economies than in emerging and developing economies.[1] Measures taken to contain inflation had the effect of slowing down the strong post-pandemic economic recovery, although this had a more limited impact than expected on economic growth, which turned out to be rather resilient (IMF 2024b).

While global labour markets are still characterized by sizeable employment deficits and high levels of informality (ILO 2024a), it is now well documented that labour market participation and the global unemployment rate have returned to pre-pandemic values (ILO 2024b). But what about wages?

Part I of this *Global Wage Report* documents if and how real average wages recovered as inflation progressively returned to lower levels in 2023 and the first half of 2024. To this end, the report presents global, regional and country-specific wage trends. The report also analyses recent adjustments in nominal and real minimum wages, looking at the extent to which minimum wage policies were responsive to the increase in inflation.

Part II of the report is devoted to wage inequality, and how it evolved during the twenty-first century. During the first quarter of the century, significant progress has been made in terms of economic growth, the creation of wage employment[2] and reductions in extreme working poverty.[3] However, high levels of inequality – both globally and within

1. It should be noted that, in Part I and Part II of the report, countries are aggregated using different classifications. Part I, which investigates real wage growth in the current economic context by making use of economic variables published by the International Monetary Fund (IMF), uses the IMF classification, which distinguishes between "advanced economies" and "emerging (market) and developing economies". Part II of the report, which uses country-level data, instead follows the World Bank country classification by country income group. This classification is updated yearly and is based solely on the gross national income (GNI) per capita of a given country. However, despite not following strict criteria, the IMF classification used in Part I considers more than just income and accounts for factors such as industry diversification and the country's level of integration into the global financial system. While the two classifications are not equivalent, there is a large overlap between them. All low-income, lower-middle-income and upper-middle-income countries (as per the World Bank) are classified among emerging and developing economies (as per the IMF). However, not all high-income countries (World Bank) are classified among advanced economies (IMF). Examples of high-income countries that are not considered advanced economies – as they lack the diversified economy that characterizes an advanced economy – include Kuwait and Qatar.
2. Wage employment has increased globally by around 50 per cent since 2000 (ILO 2024b).
3. Defined as an employed persons earning less than US$2.15 per day per person in PPP terms. The prevalence of extreme working poverty has declined from 27.6 per cent at the beginning of the century to 6.9 per cent in 2023 (ILO 2024b).

countries – remain a major concern. Part II of the report focuses on wage inequality as one dimension of inequality. The report measures the level of wage inequality in a large sample of countries, as well as at the global level, and investigates how these measures have evolved since the beginning of the twenty-first century. The report also looks at where women are located, relative to men, in the distribution of wages, and provides some new perspectives on the gender wage gap.

In high-income countries, most workers are wage earners, and wage inequality is therefore a major determinant of inequality in household incomes. However, in middle-income and especially in low-income countries, most workers are non-wage workers who largely work in the informal economy. Information on wage inequality is thus less representative of overall income inequality. This is why this edition of the *Global Wage Report* also broadens the analysis to analyse both the wages of paid employees and the labour incomes of non-wage workers.[4] The report then shows how wage inequality compares to overall labour income inequality and highlights the impact that including non-wage workers has on the earning gap between women and men.

Finally, Part III of the report concludes by discussing the outlook for wage growth in the near future and by highlighting some policy options to strengthen wage-setting practices and to address the root causes of low pay.

4. Refer to section 8 for more information on how labour income is defined and calculated in the report.

Global Wage Report


Part
I

Wages in the twenty-first century: An overview

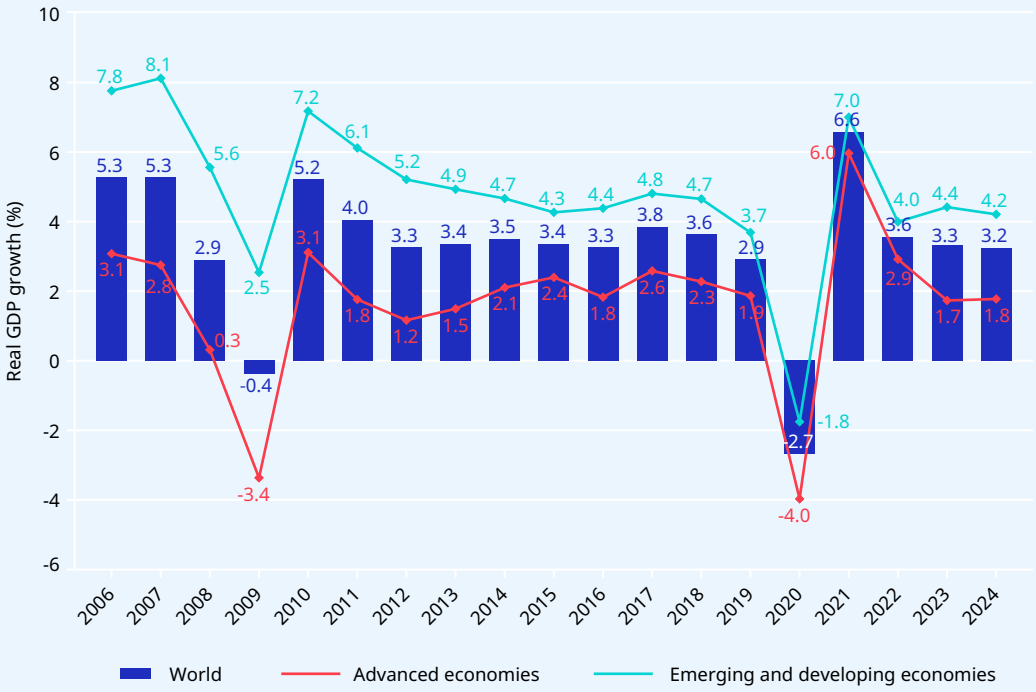
2 The global economic and labour market context

2.1. Economic growth

Following the strong post-pandemic recovery, global gross domestic product (GDP) growth declined from 6.6 per cent in 2021, to 3.6 per cent in 2022 and 3.3 per cent in 2023 (figure 2.1). Measures taken to moderate the worldwide inflation that emerged in 2021 and peaked in 2022 contributed to this slowing down of global economic growth. However, thanks to several factors, including sustained spending by household and firms from savings accumulated during the pandemic and expansionary fiscal policies in parts of the world, most notably in advanced economies, the tightening of monetary policy has had a lower than expected impact on economic growth. Global GDP growth is projected to slightly decline to 3.2 per cent in 2024, with economic growth increasing by 1.8 per cent in advanced economies and by 4.2 per cent in emerging and developing economies (IMF 2024b).

However, these trends hide important regional differences. Among advanced economies, economic growth in the euro area remained below 1 per cent, increasing from 0.4 per cent in 2023 to 0.8 in 2024; while it was considerably higher in the United States of America at 2.9 per cent in 2023 and 2.8 per cent in 2024. Among emerging and developing economies, Emerging and Developing Asia remains the fastest-growing region, with economic growth above 5 per cent in both 2023 and 2024 (5.7 per cent and 5.3 per cent, respectively), followed by sub-Saharan Africa, which recorded GDP growth of 3.6 per cent in both 2023 and 2024. By contrast, Latin America and the Caribbean experienced more modest levels of economic growth in both 2023 (2.2 per cent) and 2024 (2.1 per cent).

Figure 2.1. Annual average economic growth measured as GDP in constant 2015 prices, 2006–24 (percentage)



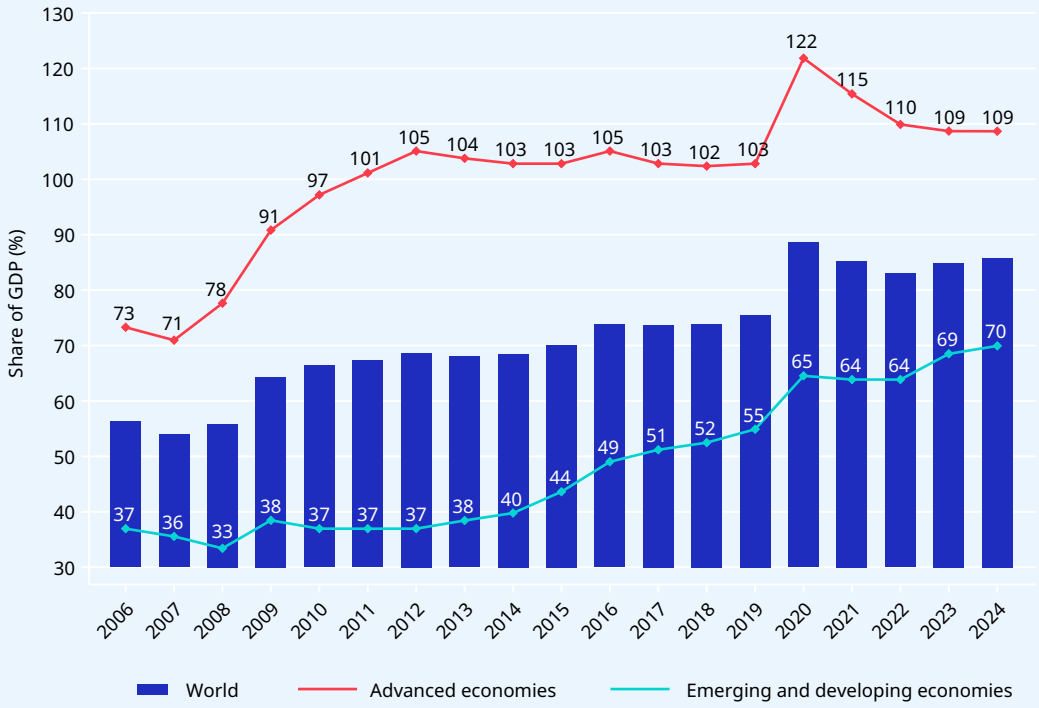
Source: IMF 2024b.

Rising geopolitical tensions, particularly the war in Ukraine and the Israel–Hamas conflict, could continue to restrict international trade and deteriorate international relationships, thus weighing on growth prospects. In the longer term, climate change remains a threat to sustainable growth for all countries. Developing countries are particularly affected by climate change, in the form of increasingly frequent extreme weather events, with devastating effects on private and public infrastructure, disruptions to output and business continuity, and reduced productivity.

2.2. Evolution of public debt

Steep increases in public debt were seen in advanced economies in 2020 due to unprecedented spending to support firms and households during the COVID-19 pandemic and the subsequent cost-of-living crisis. Following this rapid increase, public debt substantially declined up to 2022 and then stabilized. Even so, the debt-to-GDP ratio (that is, government gross debt) in advanced economies is projected to remain higher than pre-pandemic levels at 109 per cent in 2024 (figure 2.2). While the surge in public spending in emerging and developing economies during the COVID-19 pandemic was more modest than what was seen in advanced economies, government

Figure 2.2. Government gross debt as a share of GDP, 2006–24 (percentage)



Source: IMF 2024b.

gross debt in emerging and developing economies has continued to increase in recent years, going from 65 per cent in 2020 to 70 per cent in 2024.

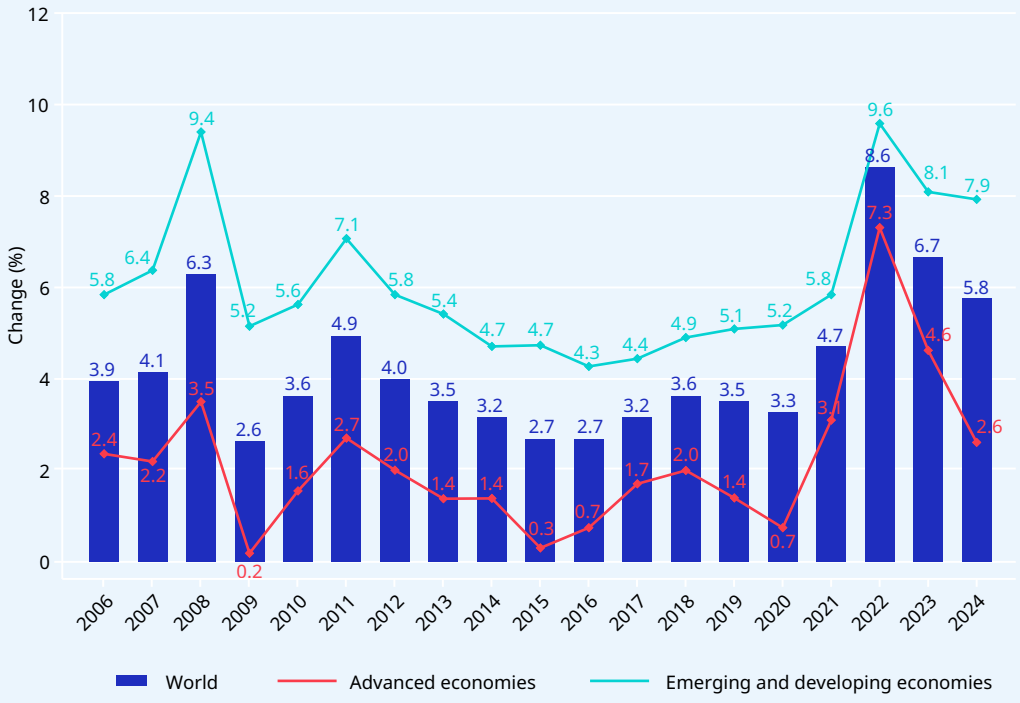
The difficulty seen among emerging and developing economies to revert to pre-pandemic levels of public debt reflects their limited fiscal leeway, and the further increase in gross government debt in recent years can be partially attributed to the rise in debt-service costs due to historically high interest rates and a strong US dollar (IMF 2023). For many developing countries, higher interest rates in advanced economies also translated into capital outflows, which led to a depletion of foreign exchange reserves and higher borrowing costs.

2.3. Inflation rates

Particularly relevant to the real value of wages has been the acceleration of inflation rates, which peaked in 2022 when they reached 8.6 per cent globally, 7.3 per cent in advanced economies and 9.6 per cent in emerging and developing economies.

Since then, global inflation has decreased from its peak, going from 8.6 per cent in 2022 to 6.7 in 2023, and is predicted to reach 5.8 per cent in 2024 (figure 2.3). However, the moderation of inflation is set to happen at different speeds across the globe. Projections indicate that in 2024 a decline is set to happen in advanced economies, where inflation is estimated at 2.6 per cent, while emerging economies will have to wait at least until 2025 to see a marked slowdown in prices.

Figure 2.3. Inflation rates measured through the variation of the average consumer price index, 2006–24 (percentage)



Source: IMF 2024b.

Consequently, these emerging economies will take longer to reach their inflation targets. The faster decline in inflation in advanced economies is due to a combination of factors, including the implementation of monetary policies and the fading of price shocks that disproportionately affected advanced economies (IMF 2024a).

In 2023, inflation trended downward mainly due to dips in food and energy prices. However, the further decline projected for 2024 at the global level is foreseen to be driven by a decrease in core inflation, which excludes the most volatile components of the basket of goods, namely food and energy, as well as components with prices regulated by the government. While inflation has slowed down since its peak in 2022, food and housing costs remain elevated. In practical terms, this means that the inflation faced by low-income households, which spend a relatively larger share of their income on food and housing, remains above the inflation rate as measured through the evolution of the consumer price index (CPI). Rice represents a notable exception to the otherwise generally observed decrease in food prices, as its price rose by 21 per cent in 2023 (World Bank 2024). Given that rice is a staple food for many low-income households around the world, this trend is likely to exacerbate food insecurity.

2.4. The labour market context

After a global decline in employment of 2 per cent in 2020 due to the COVID-19 crisis, employment growth has been positive for three consecutive years starting in 2021. While the 2.2 per cent increase registered in 2023 was below the 2.8 per cent increase recorded in both 2021 and 2022, the employment growth

rate remains above the 1.3 per cent seen in 2019, the last year before the pandemic (ILO 2024b). The slowdown in employment growth registered in 2023 has been more pronounced in high-income and upper-middle-income countries. After experiencing a significant drop in 2020, women's employment globally grew twice as fast compared to men's in 2023, driven by an influx of women into the labour market in lower-middle-income countries. However, this trend is expected to reverse in 2024, with employment projected to grow markedly faster for men than for women.

Despite the positive movement in terms of overall employment numbers, the mean weekly hours actually worked per employed person at the global level remain about 2 per cent below the pre-pandemic figures (41.2 hours in 2023 versus 42.0 hours in 2019) (ILO 2024b). In addition, due to the increase in the labour force, the number of workers living in extreme poverty (defined as earning less than US$2.15 per day per person in purchasing power parity (PPP) terms) increased by 1 million in 2023, surpassing 241 million worldwide (ILO 2024b).

Furthermore, informal employment has increased in absolute terms due to formal job creation being insufficient to absorb the growth in employment and in the working-age population, raising concerns about decent work deficits for an increasing number of workers. The number of workers in informal employment has increased from approximately 1.7 billion in 2005 to 2.0 billion in 2024 (ILO 2024a). Even so, formal employment did grow faster than informal employment between 2005 and 2019. This is due to some extent to a compositional effect, namely an increase in the share of employees in total employment less exposed to informality than non-employees.

During the COVID-19 pandemic – and contrary to what happened in previous crises – informal employment did not play its traditional countercyclical role of absorbing workers that had been displaced from the formal economy. Instead, informal workers were more likely than formal workers to lose their jobs or to be forced into inactivity, leading to a one-off "formalization" of the labour market in many countries. This trend reversed in 2021 as informal job growth fully recovered from the losses experienced in 2020, whereas formal employment did not bounce back to its previous level (ILO 2023).

Women and certain categories of workers, such as young people and persons with disabilities, continue to face particular challenges in finding decent work. Women's labour force participation rate, which was 48.7 per cent in 2023, remains substantially below the 73.0 per cent recorded for men. Youth unemployment remained at nearly 3.5 times that of adults in 2023[5] (13.3 per cent versus 3.9 per cent) (ILO 2024b). This latter problem is further exacerbated by the considerable number of young people who are not in education, employment or training (NEET). Figures from 2023 indicate that one-in-five young adults are in NEET status (ILO 2024c).

5. "Youth" refers to individuals aged 15 to 24, while "adults" refers to individuals older than 24.

3

Wage trends

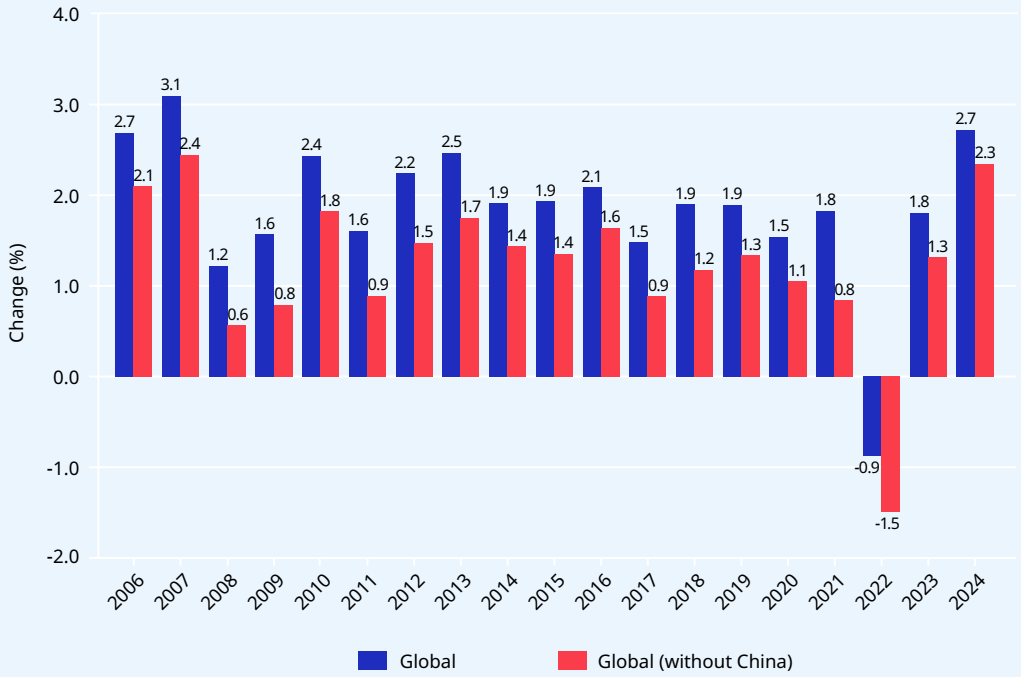
3.1. Global wage trends

Figure 3.1 displays annual average global real wage growth from 2006 to mid-2024.[6] It shows that in 2022 there was a fall in global real wages of an estimated 0.9 per cent. Moreover, this fall in global real wages is more like 1.5 per cent if one excludes China, a country where real wage growth has recently been reportedly higher than in most other countries.[7] As inflation started to decline, real global wage growth returned to positive ground in 2023, reaching 1.8 per cent – only 0.1 per cent lower than the estimated growth for 2019, the year immediately before the pandemic. When excluding China, the 2023 global growth rate in real wages is estimated at 1.3 per cent, the same value recorded in 2019. The yearly real wage growth for China in 2023 is estimated at 4.6 per cent, up from 2.8 per cent in 2022, but down from the 7.8 per cent recorded in 2021.

Pushed by a further deceleration of inflation, global real wage growth in 2024[8] is projected to strengthen, reaching 2.7 per cent, the largest annual increase recorded in more than 15 years. When excluding China, global real wage growth in 2024 is projected at 2.3 per cent. It should also be noted that the two most recent years in the series have been substantially affected by Türkiye, which is experiencing a period of hyperinflation and

6. Estimates for 2024 are based on data for the first two quarters of the year and should be updated, accordingly, as data become available in future editions of the publication.
7. The figure for global real wage growth is in line with what was estimated in the previous edition of the *Global Wage Report*, published in November 2022, which included data for only the first two quarters of the year 2022. The figure for real wage growth, excluding China, is 0.1 per cent below the previous estimate. Small changes in the historical estimates between different editions of the *Global Wage Report* can be explained by several factors, including revisions to surveys that collect wage data, the exclusion of certain countries, the availability of new data from non-response and response countries, and revisions of other data sources used to calculate the estimates, such as the CPI and labour productivity. The methodology for calculating global and regional estimates is available on the ILO's thematic web page (https://www.ilo.org/wages). See also ILO 2018a, Appendix I. Country-specific data and wage trends are available from the ILO Global Wage Database and can be downloaded free of charge (www.ilo.org/ilostat).
8. Estimated by comparing the first two quarters of 2024 with the corresponding period in 2023.

Figure 3.1. Annual average global real monthly wage growth, 2006–24 (percentage)



Source: ILO estimates based on official national sources as recorded in ILOSTAT and the ILO Global Wage Database.

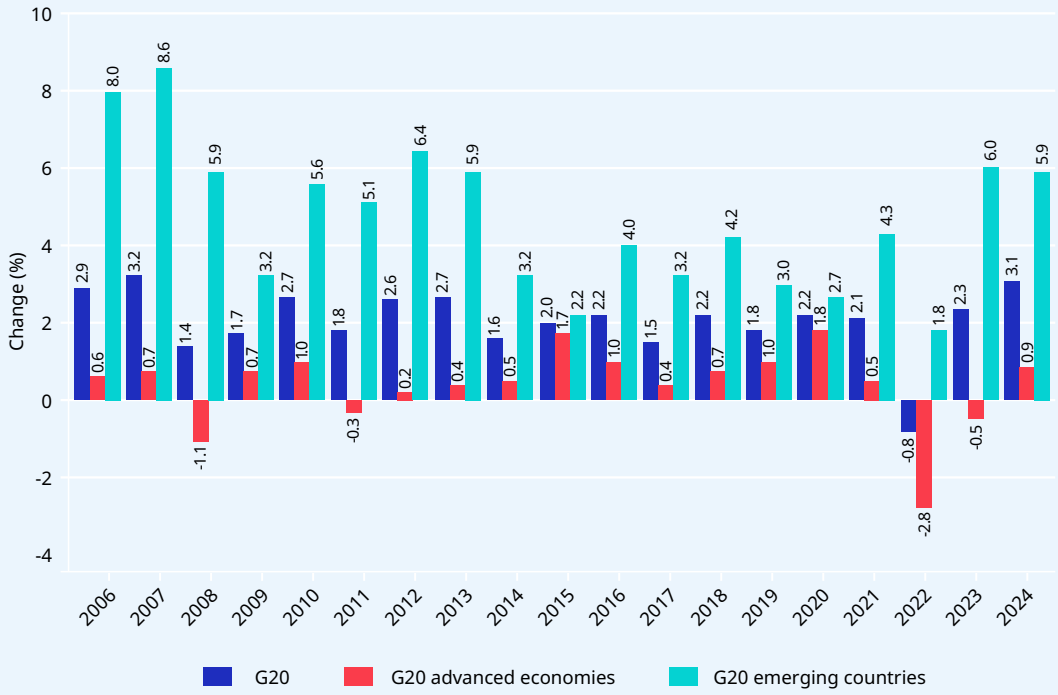
reporting very fast real wage growth.[9] When both China and Türkiye are excluded, global real wage growth is measured at 1.7 per cent in 2024, which still remains the largest increase recorded since 2010.

Figure 3.2 presents estimates similar to those of figure 3.1 but focusing on G20 countries, which account for roughly 85 per cent of global GDP and about around 60 per cent of world's wage employees. Real wage growth across all G20 countries is represented in the figure, along with separate real wage growth estimates for the group of advanced G20 economies and the group of emerging G20 economies.

The 2022 contraction of real wage growth among G20 countries is in line with what was observed at the global level, reaching –0.8 per cent.[10] But while average real wage growth in 2022 was negative (–2.8 per cent) in advanced G20 economies, emerging G20 economies experienced a slowdown in real wage growth that nonetheless remained positive at 1.8 per cent.[11] The growth rate in 2023 was even more polarized between advanced and emerging G20 economies: Real wage growth in advanced G20 economies continued to be negative at –0.5 per cent, while real wage growth in emerging G20 economies is esti-

9. Türkiye reported real wage growth of 38.8 per cent in 2023 and 27.2 per cent in 2024. The most recent figures for inflation in Türkiye are 72.3 per cent in 2022, 53.9 per cent in 2023 and 60.9 per cent in 2024.
10. The figure is 0.1 percentage points higher than what estimated in the *Global Wage Report 2022–23* using data for the first half of 2022. While modest at the aggregate level, this revision is the result of important changes in the estimates for advanced G20 economies and emerging G20 economies, which ended up compensating for each other.
11. Average real wage growth in advanced G20 economies has been revised downward by 0.6 percentage points, from –2.2 per cent to –2.8 per cent, while average real wage growth in emerging G20 economies has been revised upward by 1.0 per cent, going from 0.8 per cent to 1.8 per cent. The lowered estimate for advanced G20 economies is driven by lower yearly real wage growth in the Republic of Korea and Australia compared to estimates that used data for just the first half of 2022, while the higher estimate for emerging G20 economies is justified by high real wage growth in India, the Russian Federation and Türkiye.

Figure 3.2. Annual average real monthly wage growth in the G20 countries, 2006–24
(percentage)



Notes: Advanced G20 economies comprise Australia, Canada, France, Germany, Italy, Japan, the Republic of Korea, the United Kingdom of Great Britain and Northern Ireland, and the United States. Emerging G20 economies comprise Argentina, Brazil, China, India, Indonesia, Mexico, the Russian Federation, Saudi Arabia, South Africa and Türkiye.

Source: ILO estimates based on official national sources as recorded in ILOSTAT and the ILO Global Wage Database

mated at 6.0 per cent, the highest value recorded in the last ten years.

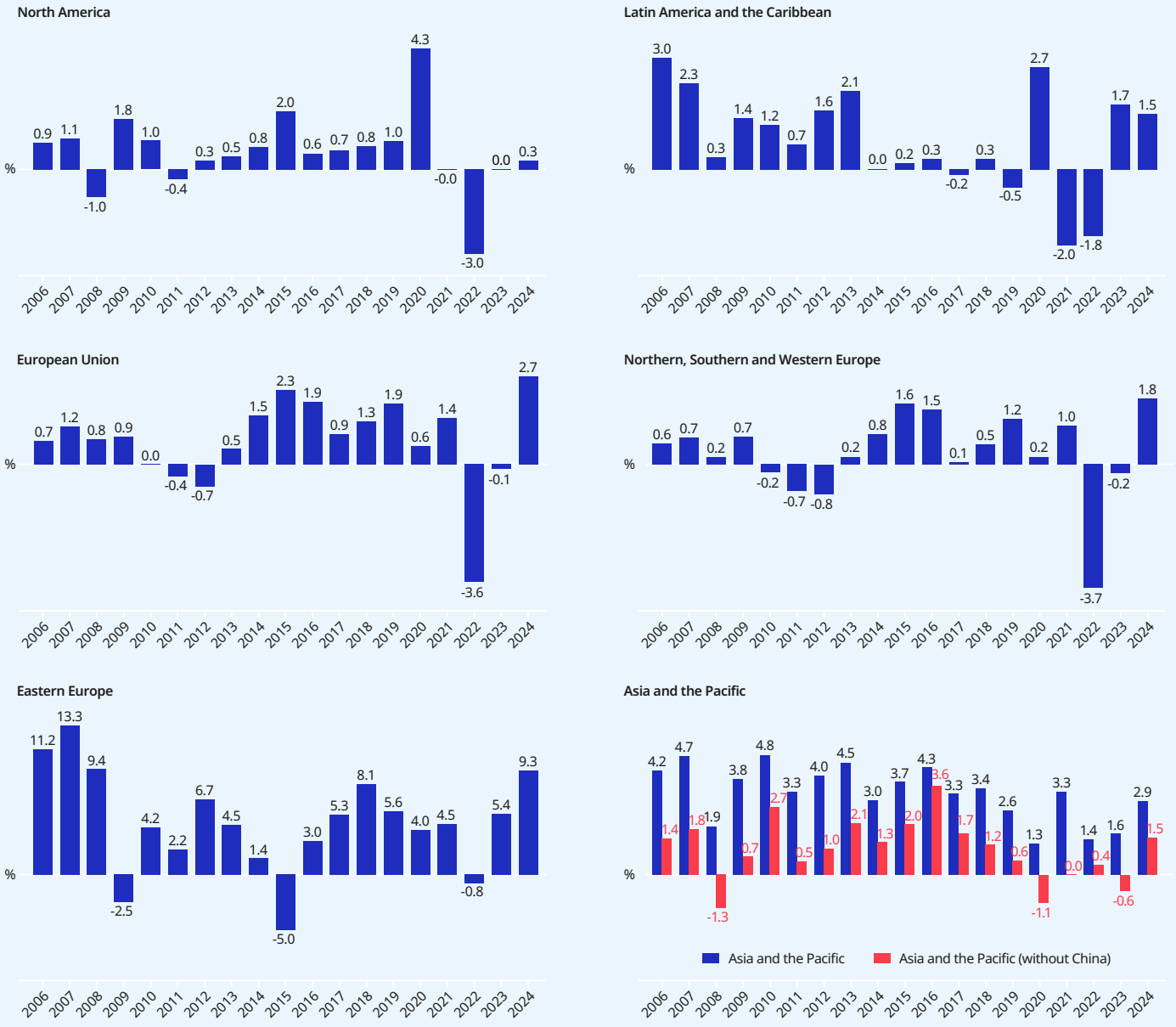
Due to the large share of global wage employees that they represent, the real wage growth rate of G20 countries in 2024 is similar to the growth rate estimated at the global level, standing at 3.1 per cent. After two years of negative growth, real wages in advanced G20 economies are projected to return to growth in 2024, with a 0.9 per cent increase, while wage growth in emerging G20 economies is projected to remain almost unchanged at 5.9 per cent.

3.2. Regional wage trends

Figure 3.3 presents regional real wage growth trends to complement the analysis at the global level. When looking at regional-level data, the evolution of real wage growth reveals substantial heterogeneity. While real wage growth declines driven by the cost-of-living crisis are evident in all regions in 2022, the ways in which real wages evolved in the years preceding and following 2022 vary considerably from region to region.

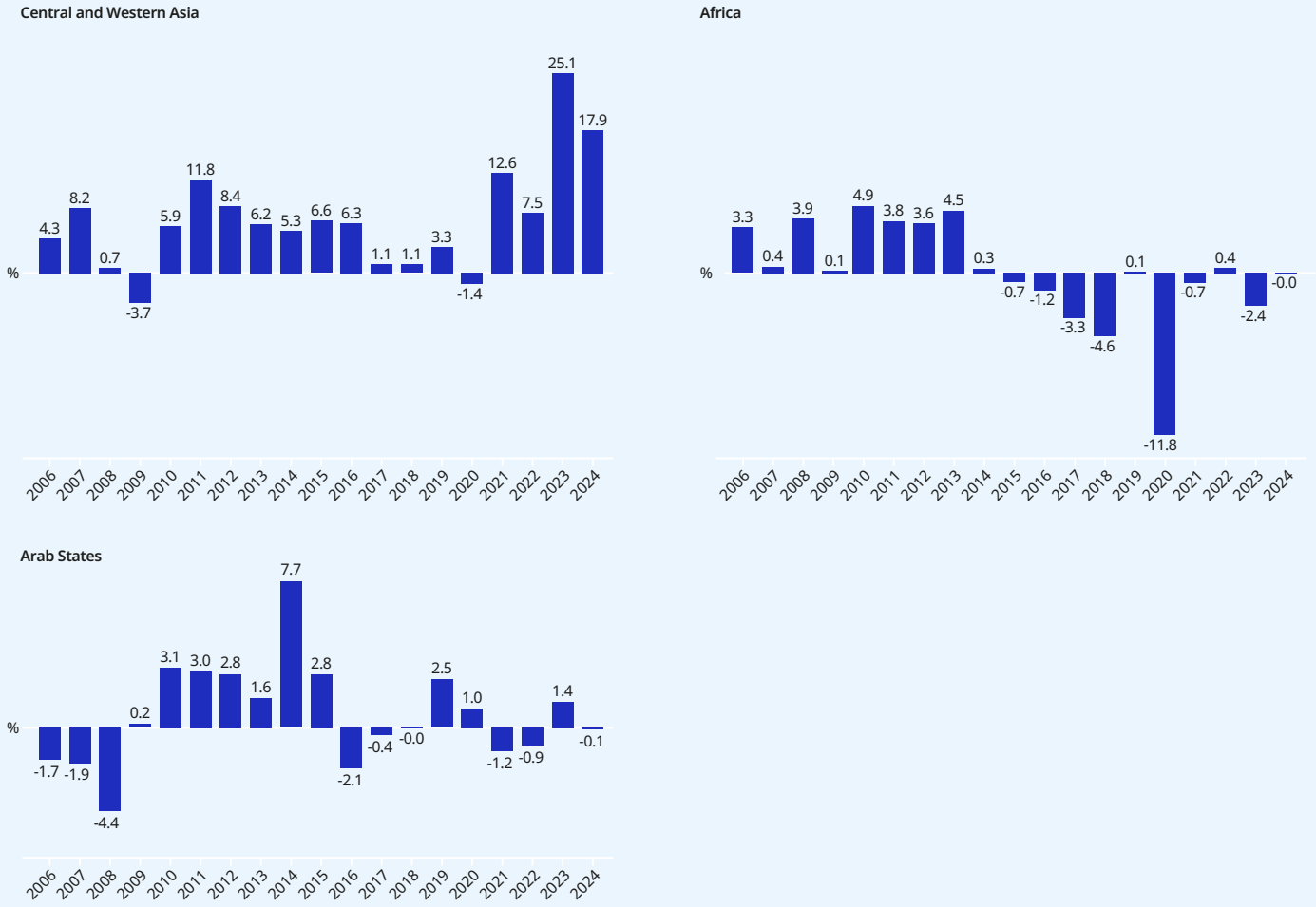
In Northern America (Canada and the United States), from 2006 until the COVID-19 pandemic in 2020, real wage growth fluctuated between 0 and 1 per cent in most years. As

Figure 3.3. Annual average real wage growth by region, 2006–24 (percentage)



detailed in the *Global Wage Report 2020–21*, in the first year of the COVID-19 pandemic, real wages in Northern America experienced a sudden increase as a result of a "composition effect" (ILO 2020c). This is a phenomenon that manifests when an economic shock has a greater impact on specific sectors or occupations (and hence among wage employees with specific characteristics), resulting in a sudden change in the characteristics of the workforce. In the case of the COVID-19 pandemic, the majority of those who lost their jobs – and hence their earnings – were low-paid wage employees, while their higher-paid counterparts remained employed, thereby mechanically increasing the average wage. As the COVID-19 pandemic slowly resolved and low-paid wage employees returned to the la-

Figure 3.3. *(continued)*



Note: For the list of countries used to obtain regional estimates, see the Global Wage Report Database at https://www.ilo.org/publications/flagship-reports/global-wage-report-2024-25-wage-inequality-decreasing-globally.

Source: ILO estimates based on official national sources as recorded in ILOSTAT and the ILO Global Wage Database.

bour market, this composition effect was reversed. Real wage growth in Northern America flattened out in 2021 and then dropped to –3.0 per cent in 2022 as inflation eroded the purchasing power of wages. With the progressive slowdown of inflation, the evolution of nominal wages started to match inflation, resulting in zero real wage growth in 2023, followed by a modest increase of 0.3 per cent in real terms expected in 2024.[12]

After remaining virtually flat between 2014 and 2019, real wage growth in Latin America and the Caribbean[13] has been volatile since the outbreak of the pandemic. The presence of a strong composition effect is reflected in the 2.7 per cent increase seen in 2020, followed by declines of about 2 per cent in both 2021 and 2022, as low-paid workers returned to the labour market and inflation started to erode real wages. Despite a large decline

12. Estimates for 2024 are based on the first two quarters of the year.
13. Argentina is included only starting from 2017. Differences in real wage growth trends before and after this year might be partially attributed to this inclusion.

in real wages in Argentina due to a period of hyperinflation,[14] real wage growth in the region rebounded in 2023, driven by strong performances in Brazil and Mexico (5.2 per cent and 5.3 per cent, respectively). Average real wage growth in the region is projected to slow down marginally to 1.5 per cent in 2024.

The rapid increase in real wages in China has heavily influenced the regional trend for Asia and the Pacific.

In the European Union, real wage growth had been relatively high compared to other developed economies in the years before the pandemic, following a period of negative growth between 2010 and 2012. The year 2020 was characterized by a deceleration in real wage growth that nonetheless remained positive – probably as a consequence of a combination of factors pulling wages in opposite directions, including declining wages for some workers, composition effects mechanically increasing average wages, and the use of temporary wage subsidies to maintain workers' wages in the face of a decline in their numbers of hours worked. The surge in inflation in 2022 was accompanied by a very large drop in real wages, which fell by 3.6 per cent. As inflation progressively declined in late 2023, wages gained ground, but still not enough to keep pace with inflation, marking a modest decline of 0.1 per cent in real terms for the year. In 2024 real wage growth strongly rebounded and is projected to reach 2.7 per cent, the highest figure recorded since the beginning of the series. Real wage trends in Northern, Southern and Western Europe closely resemble those in the European Union (EU), as the two regions largely overlap (with the former being broader).

In Eastern Europe, real wage growth had been very pronounced at the beginning of the series, and despite a subsequent deceleration, has generally remained well above the values observed in most other regions. The outbreak of the pandemic in 2020 was accompanied by a slowdown in real wage growth, which hovered around 4 per cent in both 2020 and 2021 before turning negative in 2022 as inflation eroded the purchasing power of wages. Real wage growth resumed its positive path in 2023 recording a 5.4 per cent increase, followed by a sizeable 9.3 per cent increase projected for 2024.

The rapid increase in real wages in China has heavily influenced the regional trend for Asia and the Pacific. In the three years prior to the COVID-19 pandemic, real wage growth in the region averaged between 2.6 per cent and 3.4 per cent annually. However, when excluding China, the figures are considerably lower, with real wage growth ranging from 0.6 per cent to 1.7 per cent. In 2020, the disparity between China and the rest of the region became even more pronounced. Real wage growth in the region was estimated at 1.3 per cent when including China, but it falls to –1.1 per cent when China is excluded. This indicates strong wage increases in China that stand in stark contrast with declines elsewhere in the region. Following the COVID-19 pandemic, real wage growth in Asia and the Pacific, excluding China, stalled in 2021, recorded a modest increase in 2022 and saw a small decline in 2023. However, when China is included, the data are once again more favourable, with real wage growth of 3.3 per cent in 2021, 1.4 per cent in 2022 and 1.6 per cent in 2023. In 2024, real wage growth in the region is projected to be 2.9 per cent; but when China is excluded, the projected figure only reaches 1.5 per cent. The remarkable economic growth of China has been driven by a significant structural transformation, with workers moving from the low-productivity agricultural sector to the higher-productivity industrial sector, thereby increasing labour productivity in the overall economy, which ultimately has translated into higher wages (ILO 2016c).

In Central and Western Asia real wage growth progressively declined from its height of 11.8 per cent in 2011 to a more modest

14. Argentina recorded negative real wage growth of –17.1 per cent in 2023 and –15.7 per cent in 2024. The most recent figures for inflation in Argentina are 72.4 per cent in 2022, 133.5 per cent in 2023 and 229.8 per cent in 2024.

1.1 per cent in 2018 and 3.3 per cent in 2019. During the first year of the pandemic, real wages declined by 1.4 per cent, but subsequently rebounded, marking a 12.6 per cent increase in 2021 and a 7.5 per cent increase in 2022. The last two years of the series show an increase in real wages of 25.1 per cent in 2023 and 17.9 per cent in 2024. These figures might not be representative of the region, however, as they are driven by reported real wage increases of 38.8 per cent (2023) and 27.2 per cent (2024) in Türkiye.

In Africa wage statistics remain sparse and volatile, and hence the estimates must be interpreted with caution. This is the region where wages performed the worst over the last decade, according to estimates based on available data. Since 2015, real wage growth in Africa has been either negative or very modest, and the most recent years are no exception. Real wage growth recorded a decline of 11.8 per cent in 2020, which is far from being recovered, as real wages further declined in 2021, only modestly increased in 2022 and then decreased again in 2023. Projections for 2024 indicate zero growth.

As with Africa, the real wage growth figures for the Arab States are tentative due to data limitations. Statistics suggest a 1.0 per cent increase in wages in 2020, followed by two consecutive years of decline, estimated at –1.2 per cent in 2021 and –0.9 per cent in 2022. Real wages recorded an increase of 1.4 percentage points in 2023, and a small contraction of 0.1 per cent is foreseen for 2024.

▶ 3.3. Evolution of real wage indices in the G20 economies

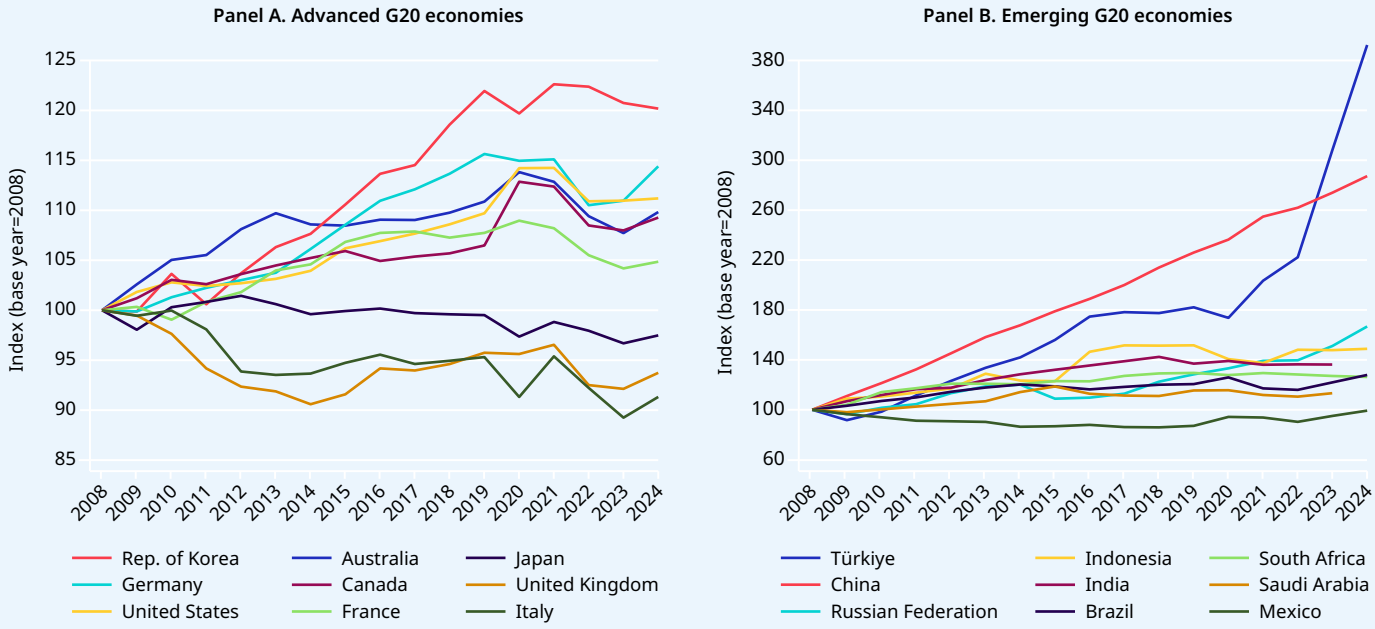
Figure 3.4 looks at the evolution of real wage indices starting from 2008, with panel A presenting the data for advanced G20 economies and panel B presenting the data for emerging G20 economies.

Looking at the advanced G20 economies, there is a clear divide between countries where real wages have been growing since 2008 and countries that have witnessed zero or negative growth. The latter are Italy, Japan and the United Kingdom, where real salaries in 2024 remain below their 2008 levels. While the remaining advanced G20 economies have witnessed growth in their real wages since 2008, all of them (with the exception of Canada) display real wage levels in 2024 that are lower or on par with the prevailing levels in 2019, the last year before the pandemic. This indicates that real wages in most advanced G20 economies have yet to close the gap created by the cost-of-living crisis. As highlighted in the *Global Wage Report 2022–23*, in most cases, the temporary increase in wages in the pandemic years of 2020 and 2021 was the consequence of a composition effect stemming from low-wage workers being pushed out of the labour market. Once low-wage workers progressively returned to the labour market, real average wages started to fall and kept on falling until 2023, due to the inability to keep the pace with historically high levels of inflation. While most countries among the advanced G20 economies experienced positive real wage growth in 2024, the decline seen in the Republic of Korea and the very modest increase in the United States are worth noting.

Turning to the emerging G20 economies, the impressive performance of wages in China stands out. Real wage growth in the country has been much faster than in other emerging G20 economies, and 2024 data indicate that wages are showing no signs of slowing down. Türkiye also reports strong real wage growth within the period considered, but with some notable heterogeneity. While wages grew consistently in Türkiye between 2009 and 2016, the growth stalled between 2016 and 2020 before picking up again. As already indicated, the most recent data that suggest a very rapid growth in real wages in Türkiye need to be interpreted with caution due to it happening during a period of hyperinflation. By contrast, Mexico is the only emerging G20 economy where real wages have not grown since 2008.

Similar to what happened in advanced G20 economies, 2023 has been characterized by real wage growth close to zero among emerging G20 economies (except for China, the Russian Federation and Türkiye). Most of the emerging G20 economies are also foreseen to exhibit only modest real wage growth in 2024. Even if wages have been growing faster in emerging G20 economies across the period considered, convergence with advanced G20 economies is still far from being achieved, as the wage levels in emerging G20 economies remain substantially below those of advance G20 countries (see Part II of the report).

Figure 3.4. Average real wage index for the G20 countries, 2008–24



Source: ILO estimates.

3.4. Wages and productivity trends in high-income countries

Part of the reason why real wages have failed to grow since 2008 in several G20 countries can be traced back to low levels of labour productivity over the last two decades. This is the case in countries such as Italy, Japan, Saudi Arabia and the United Kingdom, for instance, where labour productivity growth has been stagnant or negative since the beginning of the century. Even G20 countries that were witnessing high levels of labour productivity at the beginning of the century have experienced slowdowns in more recent years. Labour productivity growth in G20 countries declined from an average of 2.4 per cent between 2005 and 2011 to an average of 1.1 per cent in the period 2019–22 (ILO, n.d.). This is not a new phenomenon, as a slowdown in labour productivity growth has been observed in many major industrialized economies starting from the 1970s (Erber, Fritsche and Harms 2017).

Figure 3.5 depicts the trends for labour productivity and wages in 52 high-income

countries.[15] As pointed out in previous editions of the *Global Wage Report*, while labour productivity and wages are expected to grow at similar rates over the long term as gains in labour productivity imply that, on average, workers are generating more output and therefore should be remunerated with a higher wage, the two series have been growing apart since the early 1980s. Focusing on the current century, figure 3.5 indicates that, on average, labour productivity in high-income countries increased more rapidly than real wages between 1999 and 2024. However, the gap between the two series was mostly generated between 1999 and 2006. After a temporary decline in the gap due to a sharp fall in labour productivity during the global financial crisis of 2008–09, the two series evolved almost in parallel until the COVID-19 crisis caused them to draw closer together in 2020, mostly due to wages being mechanically pushed up by the aforementioned composition effect stemming from low-wage workers being pushed out of the labour force. In 2023, real wages decreased in the face of a modest increase in labour productivity. Even if real wages resumed their positive growth trend in 2024, labour productivity is predicted to increase faster, pushing the gap between real productivity and real wage growth to a projected 14.2 percentage points.

While positive, labour productivity growth between 2022 and 2023 has been modest, and this can be at least partly explained by the reversal of the factors that led to the steep increase in labour productivity witnessed in 2021. After the initial decline in 2020 at the onset of the COVID-19 pandemic, labour productivity bounced back strongly in 2021. This substantial bounce is at least partially linked to the disproportionately negative impact that the pandemic had on low-productivity service sector activities; many of these temporarily closed, leaving economies temporarily skewed towards higher-productivity activities. With the end of the health crisis, as economies reopened, so did low-productivity and labour-intensive in-person service activities. This had the effect of averaging down labour productivity of the more productive sectors that remained active during the pandemic, resulting in slower productivity growth in 2022 and 2023 compared to the period 2002–21. On top of this, current shocks such as the war in Ukraine, high levels of inflation and high interest rates also contributed to putting the brakes on productivity growth. According to the Organisation for Economic Co-operation and Development (OECD), during 2022, labour productivity growth was positive in about half of OECD countries and negative in the other half, with varying levels of magnitude. In most countries reviewed, a change in the capital-to-output ratio contributed to reducing labour productivity growth, with this being a reflection of the high interest rates and energy prices found in many high-income countries (Luu, De Menna and Botev 2024).

3.5. Beyond averages: Trends in disaggregated inflation

The *Global Wage Report 2022–23* highlighted the fact that households at the bottom of the income distribution have faced levels of inflation that have been de facto higher than the CPI. This is because they spend a relatively higher share of their limited resources on essential goods and services, such as food, housing and utilities, whose prices in the recent period of high inflation have grown faster than that of other items in the basket

15. It is important to highlight that other than the CPI, it is also possible to deflate wages using a GDP deflator. Whereas the GDP deflator captures the change in the prices of all goods and services produced in the economy, the CPI reflects the price that affects consumers. Which of the two deflators is more appropriate depends on the end-use of the analysis, with CPI more accurately reflecting changes in the purchasing power of consumers. As demonstrated in the *Global Wage Report 2014/15* (box 4), whichever deflator is used, a gap between labour productivity and real wages remains. This also means that as long as the same deflator is used consistently over time, the overall conclusion remains that the gap between productivity and wages persists over time.

Figure 3.5. Trends in average real wages and labour productivity in high-income countries, 1999–24

Notes: Labour productivity is measured as GDP per worker. Both the real wage and productivity indices are calculated as weighted averages using countries' populations as weights so that larger countries have a greater impact at each point estimate. The estimates were obtained using 1999 as the base year. Data for 2024 are based on the first and second quarters of the year.

Sources: The GDP data come from IMF 2024b, whereas wage employment data are taken from the Global Employment Trends dataset in ILOSTAT. Wage data are based on ILO estimates.

of goods and services included to construct the CPI.

As noted in section 2.3, there is evidence that, while the decline in inflation witnessed in 2023 was mostly driven by a deceleration in food and energy prices, a big part of the decline achieved in 2024 was driven by a decrease in core inflation, which excludes the more volatile items of the basket, namely food and energy.[16] In 2023 the weight of items used to calculate core inflation in OECD countries ranged from 54 per cent of the total expenditures in the basket in Poland to 85 per cent in the United Kingdom, with an average weight of 74 per cent (OECD, n.d.). Core inflation that decreases faster than headline inflation means that households at different points of the income distribution will benefit to a different extent from the deceleration in prices and, as already happened during the COVID-19 crisis, households at the low end of the income distribution might end up losing in relative terms.

The charts in figure 3.6 use monthly data to depict the evolution of the headline CPI compared to the food and non-alcoholic beverage index ("food price index") and the index for housing, water, electricity, gas and other fuels ("housing price index"), within a subsample of countries for which data are available from the beginning of the cost-of-living crisis in 2021 to December 2023. For each month depicted in the charts, inflation reflects the year-on-year change in the relevant index, that is, the change in prices between the current month and the same month of the previous year.

It is evident that starting in 2021 – and more markedly so from early 2022 – food prices in most countries have been increasing faster than the general CPI. The housing price index has been very volatile, especially among European countries, and some cases has increased faster than the general CPI. In most countries, the housing price index increased up to the end of 2022 and then progressively decreased. This behaviour can be partially

16. "Core inflation" is an alternative estimate that is often used to better understand underlying and persistent inflation in a given country. When calculating core inflation, items with volatile prices (such as food and energy) are excluded, as are items with prices regulated by the government.

Figure 3.6. Evolution of the headline CPI, food price index and housing price index in selected countries, January 2021 to December 2023 (percentage)

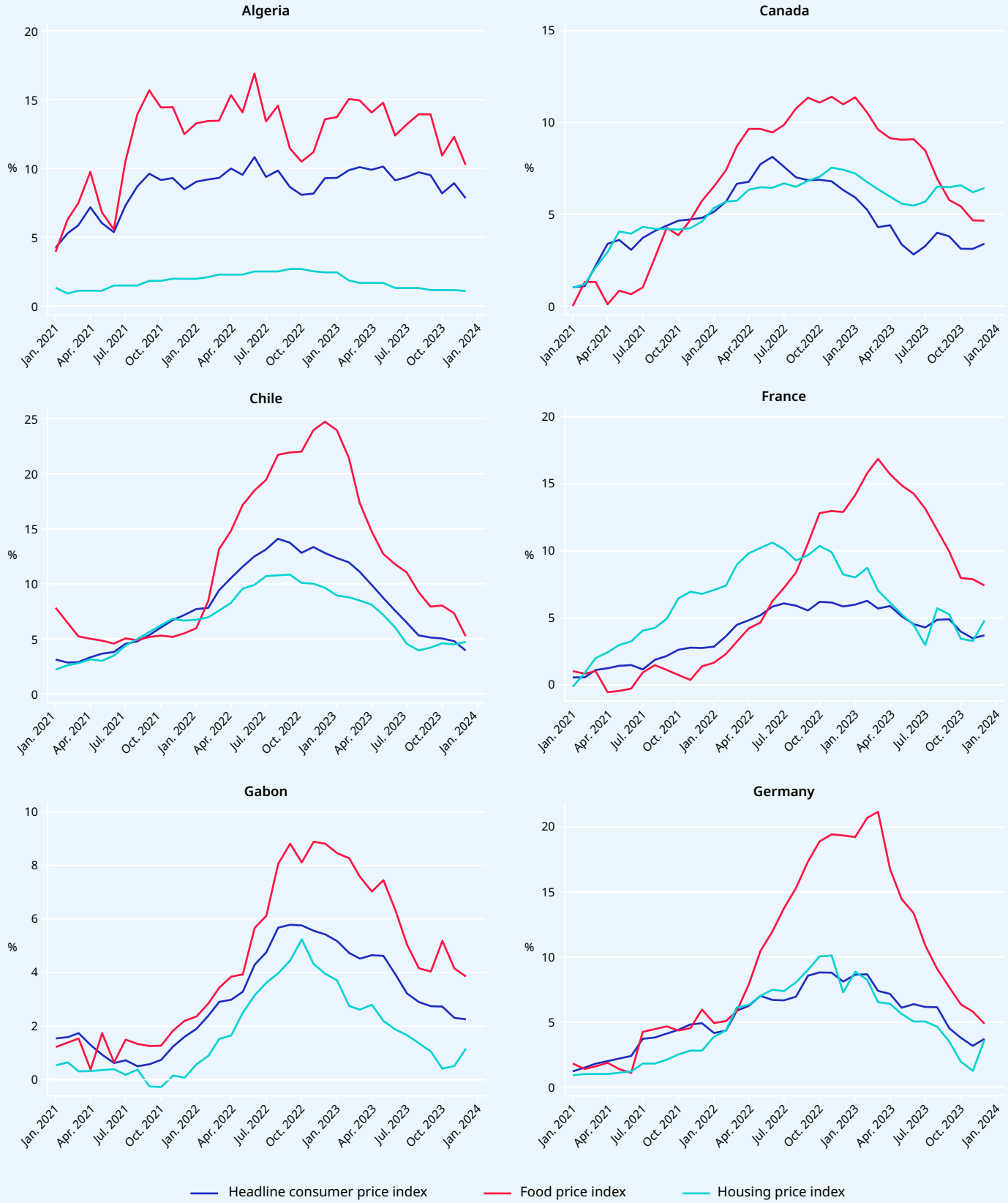
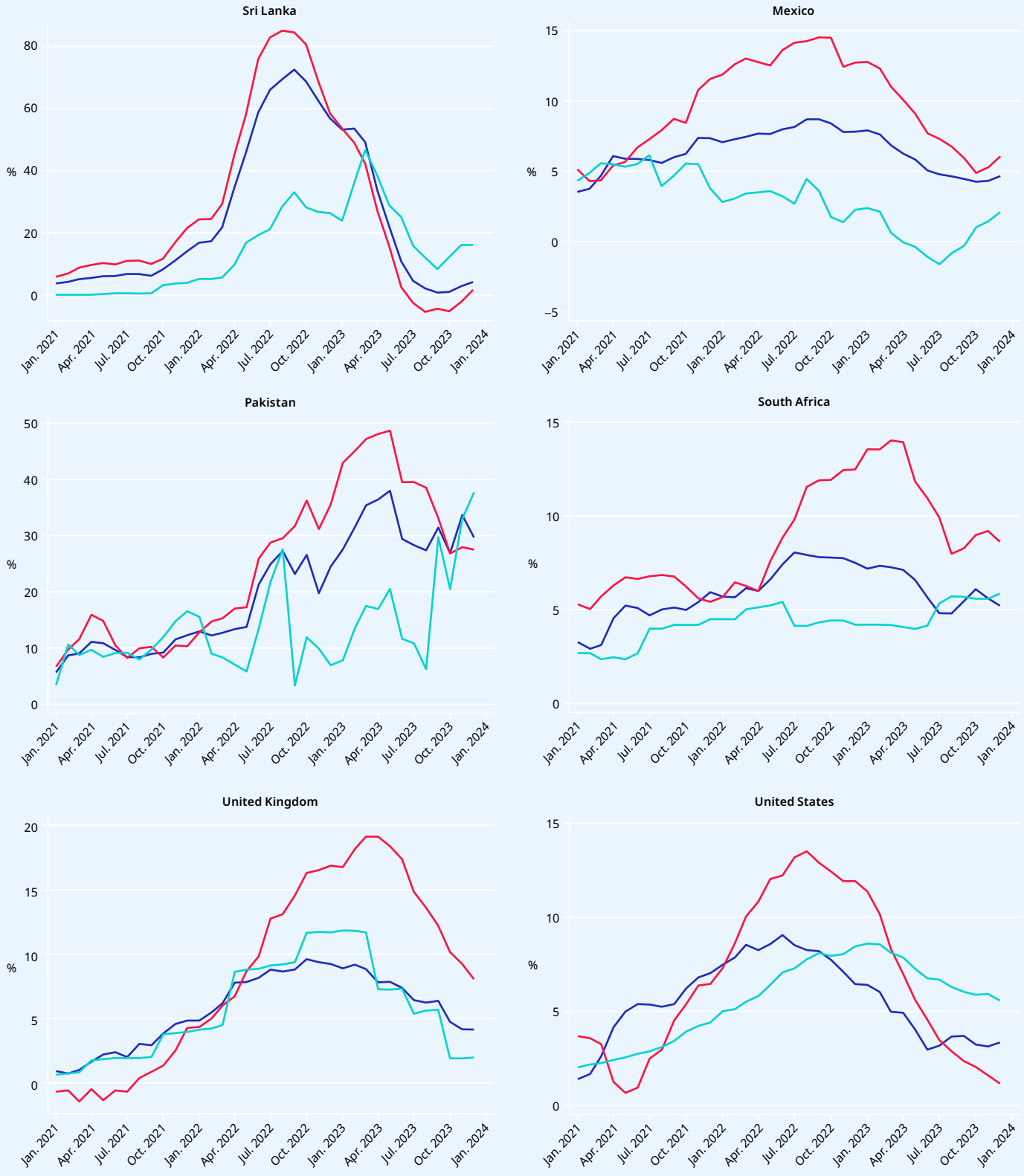


Figure 3.6. *(continued)*



Source: IMF, n.d.

explained by the fact that this index includes the costs of utilities that underwent a steep price increase after the start of the war in Ukraine and that then moderated as the cost of electricity and gas progressively declined. In most countries (including Canada, France and the United States) at the end of 2023, the housing price index was still increasing at a faster pace compared to 2021. This is partly due to the lagging nature of the index, which captures the rents for units currently occupied by renters, rather the rents for units currently on the market. Given that rents change when leases expire, which typically happens on annual basis, the housing price index tends to lag behind inflation.

Overall, the evidence suggests that, in most countries, low-income households have indeed been facing higher levels of inflation, driven by substantial increases in the price of essential goods such as food, housing and energy.

▶ 3.6. Recent trends in minimum wages

Minimum wages are a widely used tool to protect the wages of low-paid workers. The *Global Wage Report 2020–21* calculated that minimum wages, either set through statutory measures or negotiated through collective bargaining, exist in more than 90 per cent of ILO Member States, and that an estimated 327 million workers across the world were paid at, or below, the applicable minimum wage. Although compliance remains a major challenge, particularly in countries with high levels of informality, minimum wage adjustments that consider both the needs of workers and their families, as well as economic factors, can play a major role in protecting the living standards of low-paid workers and their families while ensuring the sustainability of enterprises.

Regular adjustments to minimum wages through social dialogue or a mechanism agreed through social dialogue are a fundamental component of an effective and adequate minimum wage system. Despite the high number of countries with a minimum wage system in place, there are several cases in which the level of the minimum wage has not been adjusted often enough, or at all, which can effectively render the system non-operational. Under normal economic circumstances, it is good practice to review the level of the minimum wage on a yearly or biennial basis (ILO 2018a). This does not only guarantee that the minimum wage maintains its value and protects the purchasing power of the most vulnerable households, but also benefits employers, especially small and medium-sized enterprises (SMEs), which might find it easier to absorb small gradual changes rather than sudden and large increases associated with less frequent adjustments.

During periods of high inflation, minimum wages may need to be adjusted more frequently to prevent the erosion of purchasing power caused by the rising cost of living. When adjusting the level of minimum wages, it is important to consider that inflation impacts both sides of the equation, with enterprises (especially SMEs) potentially unable to absorb higher wages due to higher production costs.

Using a sample of 160 countries, the present section thus looks at the extent to which minimum wages have been adjusted – or not adjusted – during the last few years, with focused attention on the most recent years, which have been characterized by high inflation in 2022 and a gradual return of inflation rates to lower levels as of 2023.

The two lines in chart (a) of figure 3.7 depict the share of 160 countries that experienced an increase in their nominal minimum wage and an increase in their real minimum wage between 2016 and 2023. As indicated in the chart, in 2021, likely due to the uncertainty related to the COVID-19 pandemic, the share of countries that adjusted their nominal minimum wage level(s) dropped to 39 per cent. While in 2022 (the year in which inflation peaked) and in 2023, more countries than usual – close to 60 per cent – adjusted the nominal value of their minimum wages. These adjustments were larger than usual, as

indicated by the chart (b) of figure 3.7, which presents the growth rate of the average nominal minimum wage alongside the growth of the nominal minimum wage in the median country.[17] This evidence suggests that in a majority of countries minimum wage policies were responsive to the increase in inflation.

However, despite the observed nominal adjustments, the changes were generally insufficient to fully compensate for the increase in average consumer price inflation.

However, despite the observed nominal adjustments, the changes were generally insufficient to fully compensate for the increase in average consumer price inflation, as indicated by the fact that, in the sample of 160 countries analysed, only 14 per cent saw an increase in the real minimum wage in 2021 and only 27 per cent saw an increase in 2022. The same message is conveyed by chart (d) of figure 3.7, which suggests that in the country located in the middle of the distribution of the 160 countries considered, the minimum wage declined in real terms by 3.4 per cent in 2021 and by a further 3.7 per cent in 2022, thus reducing the purchasing power of the minimum wage by a total of 7 per cent over the two years combined. In 2023, real minimum wage growth returned to the positive, but at 1.4 per cent the increase was not enough to fully compensate for the decline seen over the previous two years. Furthermore, chart (c) clearly shows that the share of countries that experienced increases in real minimum wages in 2021 and 2022 overemphasizes the share of employees who live in these countries. Indeed, while 14 per cent of the 160 countries in the sample saw an increase in their minimum wage levels in 2021, these countries only represented 7 per cent of wage employees in the world. Similarly, while 27 per cent of countries saw an increase in their real minimum wage levels in 2022, they only represented 11 per cent of wage employees globally.

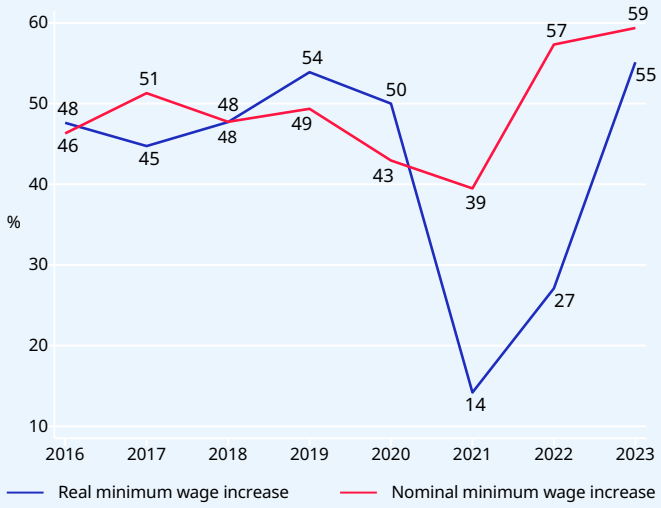
Figures 3.8 shows estimates similar to those in figure 3.7, but the information is provided by region of the world. Considering the chart on the left-hand side of figure 3.8, which displays the share of countries within each region that experienced real minimum wage increases in the period from 2016 to 2023, it is evident that the above finding that minimum wages struggled to keep up with the cost of living during periods of high inflation was ubiquitous across regions. The decline in the share of countries that experienced increases in the minimum wage in real terms was more marked in countries in Europe and Central Asia and less marked in countries in Africa and the Americas. In Africa, real minimum wages were likely already being adjusted to an insufficient degree before the cost-of-living crisis, with less than 50 per cent of countries experiencing increases in the real minimum wage between 2016 and 2020. The chart on the right-hand side of figure 3.8 suggests that the decline in the real value of the minimum wage in the median country in Africa has been more pronounced that in the remaining regions.

Examining countries' minimum wages from 2015 to 2023, particularly in the context of high and rising inflation during 2021 and 2022, reveals a diverse array of approaches to adjusting minimum wages across time, as well as varying results in terms of how the nominal and real minimum wage compare. Between 2015 and 2023, approximately 15 per cent (25 out of 160) of countries made no adjustments to their minimum wage. In the other 135 countries (85 per cent), the nominal minimum wage levels were adjusted at least once during 2015–23. In 55 of these

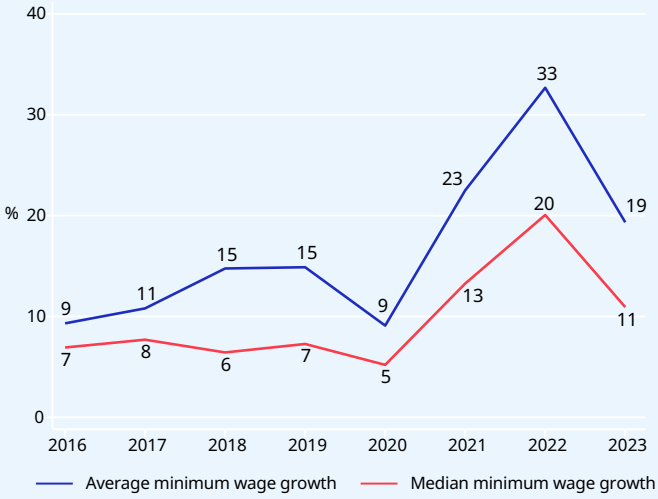
17. The median country is defined as the country located in the middle of the distribution when ranking countries based on changes in nominal minimum wages. The reason why it may be interesting to highlight the country in the middle of the minimum wage distribution (that is, the median country) is because the average may end up considering a heterogenous set of countries with significant variation in the levels of the minimum wage, hence potentially including countries that bias the measure "average" to the point that it may not be representative of the overall set of countries considered in the analysis. The middle country – the median – provides a measure that avoids such a bias.

Figure 3.7. Nominal and real minimum wage trends, 2016–23 (percentage)

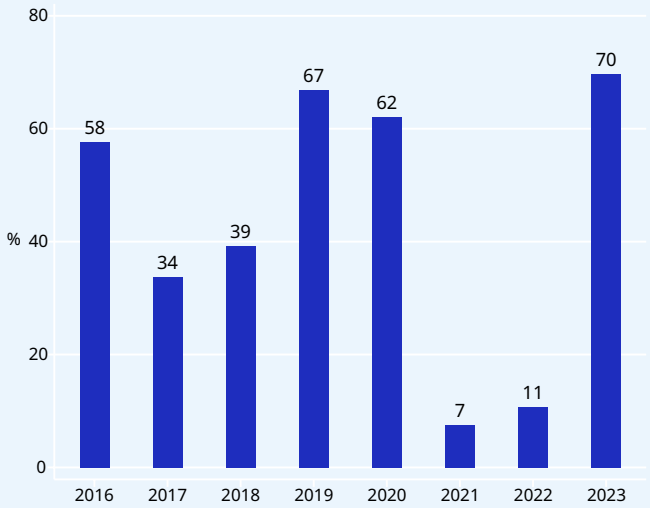
a) Share of the 160 countries that experience nominal and real minimum wage increases, 2016–23



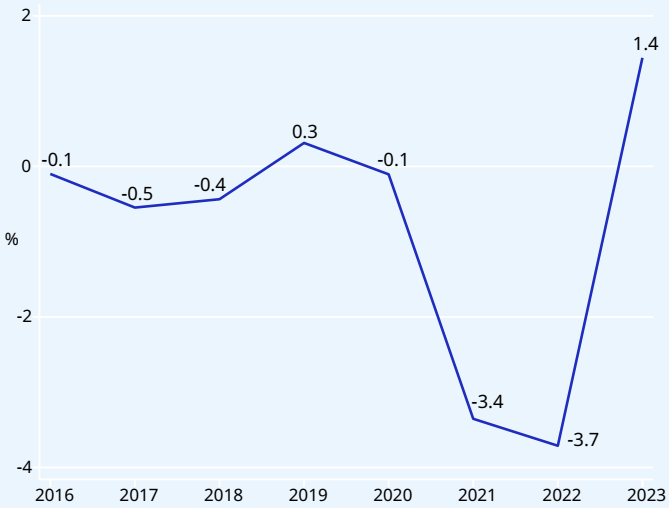
b) Average nominal minimum wage growth in countries that adjusted their normal minimum wage and median country nominal minimum wage growth, 2016–23



c) Share of wage employees (globally) living in countries where the minimum wage increased in real terms, 2016–23



d) Real minimum wage growth in the median country, 2016–23



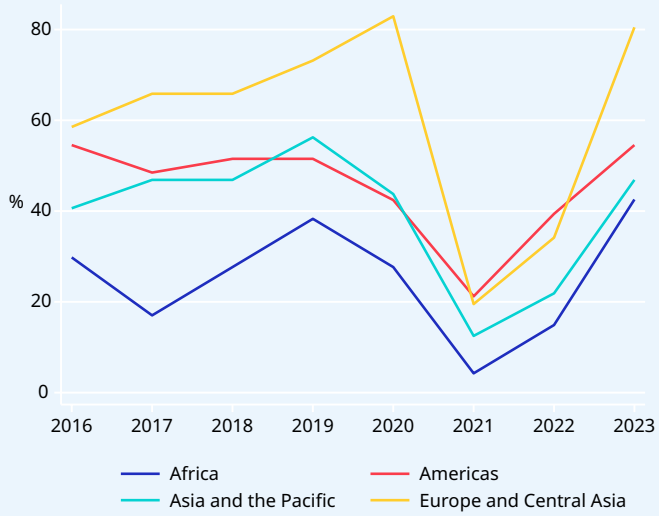
Notes: Figure 3.7 presents four charts derived from data from 160 countries. Chart a) displays the annual share of countries (n = 160) where the statutory minimum wage increased, in nominal and real terms. Chart b) shows the average annual change in the nominal minimum wage in countries that increased their minimum wage every year, along with the change in the median country, that is the country located in the middle of the distribution when ranking countries based on the change in their nominal minimum wage. Chart c) shows the percentage of global employees residing in countries where the real minimum wage increased in a given year. Chart d) depicts the annual real minimum wage change in the median country among the 160 countries in the sample.

Source: ILO estimates.

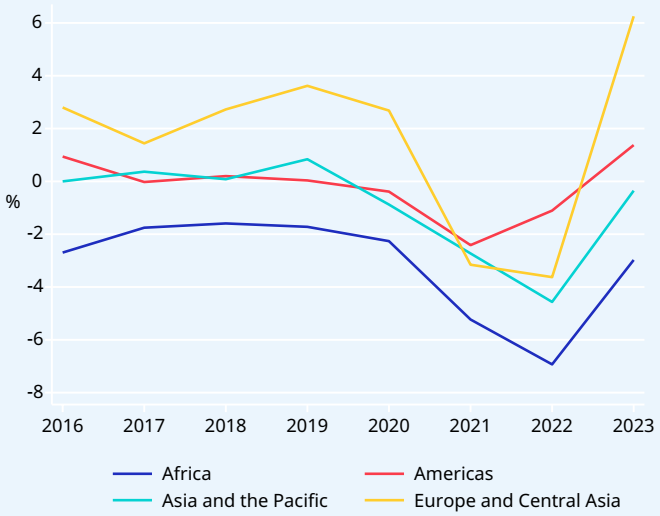
countries (or 34 per cent of the 160), the adjustment(s) were not sufficient to compensate for the increase in inflation; therefore, the minimum wage decreased in real terms despite nominal adjustments. In the other 80 countries (50 per cent of the 160), adjustments led to an increase (or maintenance) in the purchasing power of the minimum wage.

Figure 3.8. Real minimum wage trends by region (percentage)

a) Share of countries showing a real minimum wage increase by region, 2016–23



b) Real minimum wage growth in the median country for each region, 2016–23



Notes: The estimates were based on a sample of 153 countries with the following regional split: Africa – 47 countries; Americas – 33 countries; Asia and the Pacific – 32 countries; and Europe and Central Asia – 41 countries. The Arab States were excluded due to limited number of countries that have a statutory minimum wage.

Source: ILO estimates.

Part II

Wage and labour income inequality: Assessing two decades of change

Introduction

Household income inequality is a major topic of interest for policymakers around the world, and tackling high levels of income inequality has become a key pursuit for many countries, as well as multilateral institutions, to ensure social cohesion, societal welfare and the sustainability of equitable and prosperous societies. Because wage inequality is an important contributing factor to household income inequality, Part II of this edition of the *Global Wage Report* focuses on wage inequality and its evolution since the start of the twenty-first century.

The call for action to reduce inequality – and the important role that wages play in this respect – are highlighted in United Nations Sustainable Development Goal (SDG) 10: "Reduce inequality within and among countries". The related SDG target 10.4 sets out the aim to "adopt policies, especially fiscal, wage and social protection policies, and progressively achieve greater equality" by 2030. The ILO acknowledges that policies directed towards reducing inequality in the labour market have a key role to play in reducing overall inequality (ILO 2021d). Finally, the recent ILO Meeting of Experts on wage policies, including living wages, also considered that "decent wages are central to economic and social development and essential in reducing poverty and inequality, as well as in ensuring a decent and dignified life and in advancing social justice" (ILO 2024d, para. 3).

In the case of low- and middle-income countries, although the share of wage employment has been rising,[18] it is not uncommon for a large majority of workers to be non-wage workers, who often work in the informal economy. Consequently, limiting the analysis in this report to wage inequality would only give a very partial picture of inequality in the labour markets of many regions. It therefore is necessary to expand the focus of the analysis towards the broader concept of "labour income", which includes both wages and the labour-related incomes of non-wage workers, in order to understand how labour incomes shape overall household income distribution.

Part II of this *Global Wage Report* therefore starts by looking at wage inequality at the country level, and then considers wage inequality in a global context, so as to account for differences in the purchasing power of

18. The share of wage earners has continued to grow across countries and regions, particularly in emerging and developing economies – where it increased from 37 per cent of total employment in the year 2000 to 45 per cent in 2022. Globally, the number of wage earners increased from about 1.2 billion in 2000 to 1.8 billion in 2022.

workers' wages in different parts of the world. In doing so, the report also looks at the gender dimension of wage inequality. The report then expands its focus to include non-wage workers by investigating how wage inequality compares to labour income inequality – including between women and men as well as between workers in formal and the informal economies. In doing so, the report seeks to fill not just knowledge gaps concerning recent levels of and changes in wage inequality, but crucially also with respect to recent levels of and trends in overall labour income inequality.

Unquestionably, household income inequality is a complex phenomenon driven by several interrelated, and often mutually reinforcing, causes.[19] But the fact that labour income is the major source of income for most households in the world (ILO 2014) suggests that tackling labour income inequality can go a long way towards reducing household income inequality, alongside redistribution policies, such as taxes and social transfers. Indeed, in low- and middle-income countries, where a majority of workers are employed in the informal economy and where the capacity of governments to reduce inequality through fiscal redistribution may be limited, more equitable labour incomes often represent the most important means of escaping high levels of household income inequality.

While the present report presents new findings, it also offers a number of questions for further research. Tackling labour market inequalities within and between countries requires a detailed understanding of the key factors driving such changes. Unfortunately, given the global nature of this report, not much can be said here about the country-specific drivers of observed changes in wage and labour income inequality. This is a fundamental objective that national institutions should pursue by conducting empirical analyses to find out what might have driven changes in labour income inequality in their specific national context and to determine which country-specific policies might be most effective in reducing labour income inequality in the future.

19. Refer to Section II of the International Labour Conference Resolution concerning inequalities and the world of work (ILO 2021b) for a description of the drivers of income inequality.

5

Wage inequality, where do we stand?

5.1. Measuring wage inequality

The investigation starts by calculating wage inequality within 82 countries[20] for which we have relevant country-level survey data covering recent times (see Appendix I for a description of and sources for the data).[21] This sample of 82 countries covers approximately 76 per cent of the total global population of

20. Of the 82 countries included in this section, **30 are high-income countries** (Belgium, Canada, Chile, Croatia, Cyprus, Czechia, Denmark, Estonia, Finland, France, Greece, Hungary, Iceland, Italy, Latvia, Lithuania, Luxembourg, Malta, the Netherlands, Norway, Poland, Portugal, the Republic of Korea, Slovakia, Slovenia, Spain, Sweden, the United Kingdom, the United States and Uruguay); **15 are upper-middle-income countries** (Argentina, Armenia, Botswana, Brazil, Bulgaria, China, Colombia, Costa Rica, Ecuador, Guatemala, Indonesia, Mexico, Namibia, Peru and Thailand); **27 are lower-middle-income countries** (Angola, Bangladesh, Bhutan, the Plurinational State of Bolivia, Cambodia, Cameroon, Congo, Côte d'Ivoire, Egypt, Eswatini, Ghana, Honduras, India, Kenya, the Lao People's Democratic Republic, Myanmar, Nepal, Nigeria, Pakistan, the Philippines, Senegal, Sri Lanka, Tajikistan, Timor-Leste, the United Republic of Tanzania, Viet Nam, and Zambia); and **10 are low-income countries** (Burkina Faso, Chad, the Democratic Republic of the Congo, Ethiopia, the Gambia, Guinea-Bissau, Madagascar, Malawi, Mali and Rwanda).

21. The available survey data have been used in the report to study: (i) contemporaneous labour income inequality (using data from the latest available years); and (ii) changes in labour income inequality, by comparing data from latest years (circa 2021) to earliest year (circa 2006). In selecting the latest year surveys, survey data available for the year 2020 has been avoided to ensure that the disruptions in data collection during the COVID-19 pandemic, or the outcomes that would have been reflected during that period, do not affect the global estimates, the latest estimates or estimates that analyse the evolution of wage and labour income inequality across time. Thus, for most countries, the latest year survey data are from 2021, 2022 or 2023. Otherwise, for countries where the available latest year survey data are for years before 2021, the available data considered ranges from roughly 2015 to 2019, with most of these countries providing survey data within the period circa 2017–19. A comprehensive list of the surveys used can be found in Appendix I.

wage employees, including: 47 per cent of wage workers in low-income countries; 81 per cent in lower-middle-income countries; 81 per cent in upper-middle-income countries; and 67 per cent in high-income countries.

Measuring wage inequality can be achieved by comparing wages across different locations along the wage distribution, such as wages at different deciles (with each decile accounting for 10 per cent of the target population), or by relying on statistical measures that aim at summarizing wage inequality using a single number – such as the Palma ratio (explained in box 5.1) or the Gini coefficient.[22] Given that measures of wage inequality convey information about the dispersion of wages, together with other statistical measures such as the mean and the median, they can be used to compare the wage distributions of different groups within the population (such as women and men), different parts of the economy (such as economic sectors) or different countries. Monitoring changes in these synthetic measures over time also allows one to study the evolution of wage inequality, making them a useful tool for analysing how social, economic and/or labour market changes – including policy changes – impact the distribution of wages within a population.[23]

One important decision to make in the pursuit of measuring wage inequality is the selection of an appropriate measurement unit that can serve to compare wages among wage workers within a given population. Most surveys that provide information on wages do so either in the form of yearly earnings (for example, the Chinese Household Income Project, or CHIP), monthly earnings (most surveys from countries in Africa and Latin America) or using a weekly interval (the US Census of Population Survey).[24] Despite such variation in approach, surveys routinely provide information that enables the derivation of hourly wages. This was therefore chosen as the most appropriate measure to construct the wage distribution (or ranking) from which to estimate wage inequality. Using hourly wages to measure wage inequality has the advantage of disentangling working time from wages. Conversely, the use of other measures (monthly, weekly or daily pay) can reflect differences not only in the hourly pay but also in the number of hours worked over a period. This is an important consideration, because across countries and regions certain groups of wage workers tend to be overrepresented in part-time work (for instance, women), which means that using a measurement unit other than hourly wages can affect wage inequality calculations in ways that are not gender-neutral.[25]

Irrespective of the measure selected to summarize wage inequality, the first step in quantifying wage inequality is to obtain the wage distribution by ranking the hourly wages of employees in ascending order. Based on this distribution, several measures can be calculated to describe the level of wage inequality in the underlying population. Rather than selecting a single measure, an approach that

22. The Gini coefficient summarizes the wage distribution by ranking the wages of employees. When the coefficient is zero, this implies perfect equality (after being ranked, employees' wages subsequently accumulate proportionately the same amount of earnings), whereas a value of 1 implies perfect inequality (after being ranked, most of employees' wages subsequently accumulate almost nothing while one or a few people hoard all the wages earned in the population).

23. For a more detailed account on how to define 'measuring inequality' and a discussion on measurements of inequality, see Cowell 2000.

24. Other examples include surveys where individuals are asked to declare, first, the frequency with which they get paid – daily, weekly, monthly, seasonally – and second, the amount they get each time they get paid. These ways of eliciting earnings, which are far less frequent, are often found in low- and lower-middle-income countries where wage work is far more precarious and payments for work do not occur on a regular basis.

25. For example, in countries where it may not be possible to measure the D9/D1 ratio (see box 5.1) using hourly wages, the use of monthly earnings would locate many women – who are more likely to be overrepresented in part-time employment – at the lower deciles of the wage distribution, even if some or many of these part-time wage earners may in fact get paid higher hourly wages than those at the low end. The measured D9/D1 ratio would therefore be driven by the higher incidence of women in part-time work. In countries where women's participation in paid wage employment is low or where part-time work is not common, this would not be a significant issue. But comparisons among countries would be impacted by the lack of information on hourly wages.

Box 5.1. Measures of inequality

Low-paid wage workers are defined as those whose hourly wage falls below 50 per cent of the median hourly wage in a given country. In most national surveys, hours are declared on a weekly basis – except for a few countries that provide monthly hours worked. Therefore, for this report, the number of monthly hours worked is approximated by multiplying the total number of hours worked per week, as declared by the employee in the survey, by 52 weeks and then dividing by 12 months.

The D9/D1, D8/D2, D9/D5, D5/D1 inequality measures are calculated taking the ratios between the threshold values that mark the upper end of the corresponding deciles (a decile corresponds to 10 per cent of the distribution). For example, to determine the D9/D1 ratio, workers' wages are first ranked from lowest to highest using the hourly wage. The values of the hourly wage identified at the upper end of the **first decile** (**D1**, at the 10 per cent mark in the distribution) and the upper end of the **ninth decile** (**D9**, at the 90 per cent mark in the distribution) correspond to the values of D1 and D9, respectively. The D9/D1 ratio therefore measures how many times higher the hourly wage is at the top of the ninth decile relative to the top of the first decile. The D8/D2, D9/D5 and D5/D1 ratios are constructed and interpreted similarly, with D8, D2 and D5 representing the upper ends of the eighth, second and fifth deciles of the hourly wage distribution, respectively.

The **Palma ratio** is calculated by dividing the total hourly wages accumulated by the top 10 per cent of the wage distribution by the total hourly wages accumulated by the bottom 40 per cent of the wage distribution.

results in a more complete analysis of wage inequality consists of using a complementary set of measures that together capture wage inequality between different segments across the wage distribution. Box 5.1 describes the inequality measures used in this report.[26]

5.2. The prevalence of low-paid wage workers

Figure 5.1 shows the share of low-paid wage workers (as defined in box 5.1) in the 82 sample countries, organized according to their respective country income groups. The bottom panel of figure 5.1 also shows the average share[27] of low-paid wage workers in each of

26. The selection excludes other popular measures often used in studies of inequalities, in particular, the highly popular Gini coefficient, the Theil Index (or any of its variations) or the coefficient of variation. In particular, the Gini coefficient has been excluded, despite its popularity, because irregularities across the wage distribution that characterize wage inequality are often missed when estimating such a measure: for example, when two Lorenz curves intersect, reflecting different patterns of wage distribution – including the possibility of changes for a country between periods – this can nevertheless result in very similar estimates of the Gini coefficient (see Atkinson 1975). Furthermore, as a summary measure, the Gini coefficient is very sensitive to changes in the middle of the wage distribution, while not being as effective at capturing changes occurring at the extremes of the distribution where (wage) inequality is often more emphasized (see Hey and Lambeth 1980). In the case of the Theil Index, its value is not always comparable across different units (such as across countries), whereas the value obtained when applying the measure does not by itself have a natural interpretation. In fact, the Theil Index does not have a natural upper limit, and it is difficult to make policy statements without a clear reference point – the same problem applies in the case of the coefficient of variation. On the other hand, measures that compare portions of the wage distribution (such as, the Palma ratio) or the ratio between quantiles (for example, deciles) provide an effective but simple way to examine inequality. One important advantage of these measures is that they enable sensitivity analyses between particular outcomes (for example, informal employment) and between different locations of the wage distribution that may be more or less sensitive to the outcome in question. Finally, the Palma ratio or any of the decile ratios are intuitive to understand, easily replicable and useful for both cross-country analysis as well as for the analysis of changing inequality between periods.

27. The averages presented are simple averages of the share of low-paid wage workers by country.

four country income groups[28] as well as at the global level. The global estimate shows that, in the average country, more than 11 per cent of wage workers are paid less than 50 per cent of the median wage.[29] Among low-income countries, 22 per cent of wage workers are paid less than 50 per cent of the median wage. This is a considerably higher share than in lower-middle-, upper-middle- and high-income countries, where the shares of low-paid wage workers are 17, 11 and 3 per cent, respectively. Hence, according to this measure, wage inequality is, on average, higher in low-income countries and lowest in high-income countries.

In relation to high-income countries, it should be noted, however, that the Structure of Earnings Survey (SES), which is used to derive wage distributions and calculate wage inequality in European countries, has a number of limitations:

- it only collects information about enterprises with at least ten employees;
- it excludes the primary sector (agriculture, fishing and forestry); and
- in a few cases, it does not provide data on workers in public administration.[30]

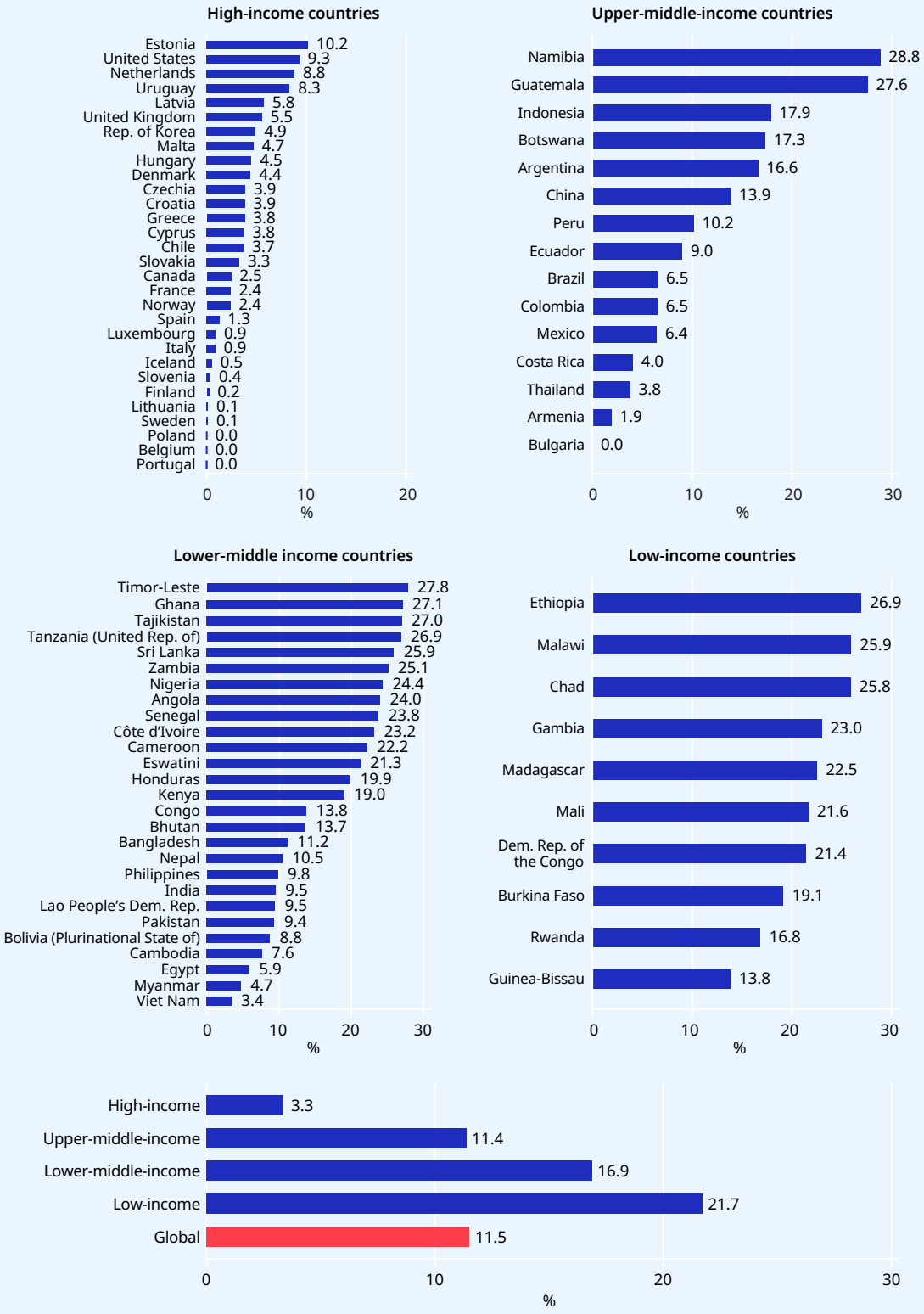
This has important implications on the estimates of wage inequality, as the smaller enterprises not covered by the survey are likely to pay lower wages. The exclusion of workers in the primary sector could also affect wage inequality, as it is a sector with relatively lower wages compared to others. However, the sector is small in terms of employment numbers, and the effect of excluding it may be less impactful on measured inequality than excluding micro- and small-sized enterprises.[31] Hence, using data from the SES might overestimate the average wage and underestimate the level of wage inequality in this group of countries, all of which are high-income.

Figure 5.1 also shows that, within each of the four country income groups, there is considerable variation among countries in regard to the share of their wage workers who are low-paid. For example, among lower-middle- and upper-middle-income countries – the two income groups that display the greatest variability across countries – the estimates range between 3.4 per cent (Viet Nam) and 27.8 per cent (Timor-Leste), and between 0 per cent (Bulgaria) and 28.8 per cent (Namibia), respectively. Among low-income countries there is also variation in the share of wage workers who are low-paid, but most countries in this group surpass the 20 per cent mark, with Ethiopia, Malawi and Chad showing that more than 25 per cent of their wage employees are paid less than 50 per cent of the median wage. In high-income countries the share of wage workers who are low-paid ranges from virtually 0 per cent in Portugal to 9.3 per cent in the United States and 10.2 per cent in Estonia.

It is interesting to observe that, among the group of 30 high-income countries presented, 19 are EU Member States with a statutory minimum wage and, therefore, countries in which article 5 of the new EU Directive on Minimum Wages (Directive 2022/2041) applies. This directive requires that such Member States establish the necessary procedures for setting minimum wages guided by certain criteria, including that the minimum wage should reach 50 per cent of the gross average wage or 60 per cent of the median wage.

28. Here and throughout the remainder of the report, country income group classification is based on the World Bank country classifications by income level for fiscal year 2023–24.
29. The threshold of 50 per cent is used rather than the more common two thirds of the median because in many developing countries the minimum wage does not reach two thirds of the median wage. As highlighted in the ILO *Minimum Wage Policy Guide*, in developed economies, the minimum wage ranges usually from 35 to 60 per cent of the median wage (ILO 2016a).
30. Is worth noting that although Eurostat does not obligate national statistic institutes to supply wage information from the public administration, since the 2006 SES, more and more countries have provided information on this sector on a voluntary basis. For example, in the 2018 SES release only three countries of the approximately 30 countries that supply data for the SES – EU Member States and European Free Trade Association countries (Belgium, Greece and Portugal) exclude public administration data from their sets. For all other countries, the sector is included and represented.
31. For example, the latest estimates show that about 9.4 million people worked in the agriculture, forestry and fishing sector in 2020. The vast majority of workers in this sector, who represent 4.2 per cent of total employment, worked in agriculture, although with variation between countries (Eurostat 2023).

Figure 5.1. Share of low-paid wage workers in selected countries, by country income group, latest available year (around 2021) (percentage)



Note: Low-paid wage workers are defined as wage workers earning less than 50 per cent of the median hourly wage in their country. The bottom panel includes simple averages of the share of low-paid wage workers for each country income group and at the global level.

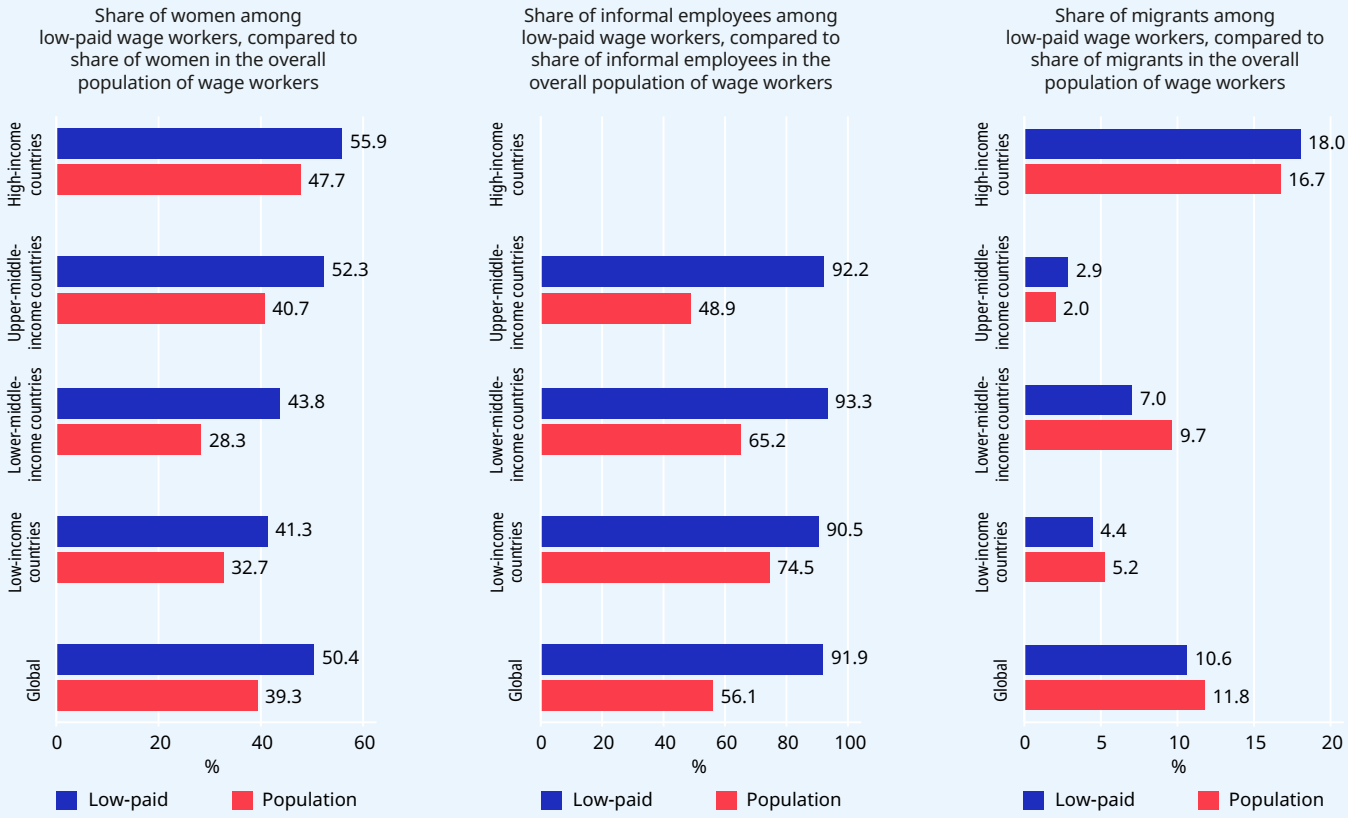
Source: ILO estimates based on national survey data from 82 countries. See Appendix I for the sources of data and year of collection. The figures displayed in the charts were obtained using data from the most recent available survey (T1, or time 1, in Appendix I).

5.3. The characteristics of wage workers across the wage distribution

Assessing the share of low-paid wage workers as a measure of wage inequality offers an opportunity to explore the characteristics of wage workers sitting at the low end of the wage distribution. One key characteristic worthy of consideration is the possible over-representation of women or certain disadvantaged groups among low-paid wage workers. Figure 5.2 provides data on the share of women, migrants and workers in the informal economy among low-paid wage workers.

At the global level, figure 5.2 demonstrates that women are overrepresented among low-paid wage workers: they represent about 50 per cent of low-paid wage workers but less than 40 per cent of all wage employees. This overrepresentation of women among low-paid wage workers is observed in all country income groups. The situation of migrant wage workers varies based on the income level of

Figure 5.2. Characteristics of low-paid wage workers compared to the overall population of wage workers by country income group, latest available year (around 2021) (percentage)



Notes: See note appended to figure 5.1 for a definition of low-paid wage workers.

Source: ILO estimates based on national survey data from 82 countries. See Appendix I for the sources of data and year of collection. The figures displayed in the charts were obtained using data from the most recent available survey (T1 in Appendix I).

the host country. In high-income countries, migrants are overrepresented among low-paid wage workers. Conversely, in low- and especially lower-middle-income countries, migrants tend to have better pay than national wage workers. This finding is consistent with an ILO (2020b) report on the migrant wage gap. Unsurprisingly, there is also massive overrepresentation of workers in the informal economy among the low-paid wage workers in middle- and low-income countries. In figure 5.2, the share of wage workers in the informal economy is not reported for high-income countries due to the lack of adequate data to measure informality in most of the surveys used. This should not, however, be taken as an indication that informality is not a cause for concern in high-income countries.

Starting from the finding that women are more likely to be among low-paid wage workers, figure 5.3 further investigates the topic of wage differentials between genders. For each decile of the wage distribution, the four country income group charts in figure 5.3 show three estimates: (i) the share of women among wage employees in that decile; (ii) the raw mean gender wage gap in that decile; and (iii) the raw median gender wage gap in that decile.

With respect to the share of women in each decile, a common pattern appears in all four country income groups, namely, as we move from the bottom (first decile, or D1) to the top (tenth decile, or D10) of the hourly wage distribution, the share of women tends to decline. For example, in low-income countries, women make up 45 per cent of the bottom 10 per cent of wage earners (D1), but only about 26 per cent of the top 10 per cent (D10). Similarly, among upper-middle-income and high-income countries, women account for about 50 to 55 per cent of the bottom 20 per cent of wage earners, but less than 37 per cent among the top 10 per cent of wage earners. Another interesting observation is that among low-income and lower-middle-income countries, women account for less than 50 per cent of wage workers in all deciles; whereas in upper-middle-income and high-income countries, women's share in wage employment is higher overall and exceeds 50 per cent in some of the low deciles.

It is a well-known fact that, in most countries in the world, women generally earn less than men, a phenomenon that persists over time and which feeds into wage inequality. Figure 5.3 shows that irrespective of the country income group or the type of measure used (median or mean wages), the gender wage gap is positive (that is, men earn more than women) in every decile of the hourly wage distribution – with the one exception of the top decile in lower-middle-income countries, which shows a negative value.[32]

Despite men generally earning more than women across the hourly wage distribution, somewhat different patterns emerge in each of the country income groups when considering how the gender wage gap shifts from decile to decile across the wage distribution. Among lower- and upper-middle-income countries, the wage gap is higher at the low end of the distribution and declines gradually as we move towards the top deciles. In these economies, women wage workers at the low end of the wage distribution are likely to work in low-paid occupations and in sectors with a high incidence of informal employment, which often implies they are less protected, including in relation to receiving the statutory minimum wage (where it exists). On the other hand, in these same groups of countries, women at the top deciles are often highly paid, probably working in the public sector and, therefore, taking home earnings that are more equitable compared to men. By contrast, in high-income countries, where informal employment is much lower and the likelihood of complying with the minimum wage is higher, the wage gap at the lower end of the hourly wage distribution is lower compared to what is seen at the higher deciles.

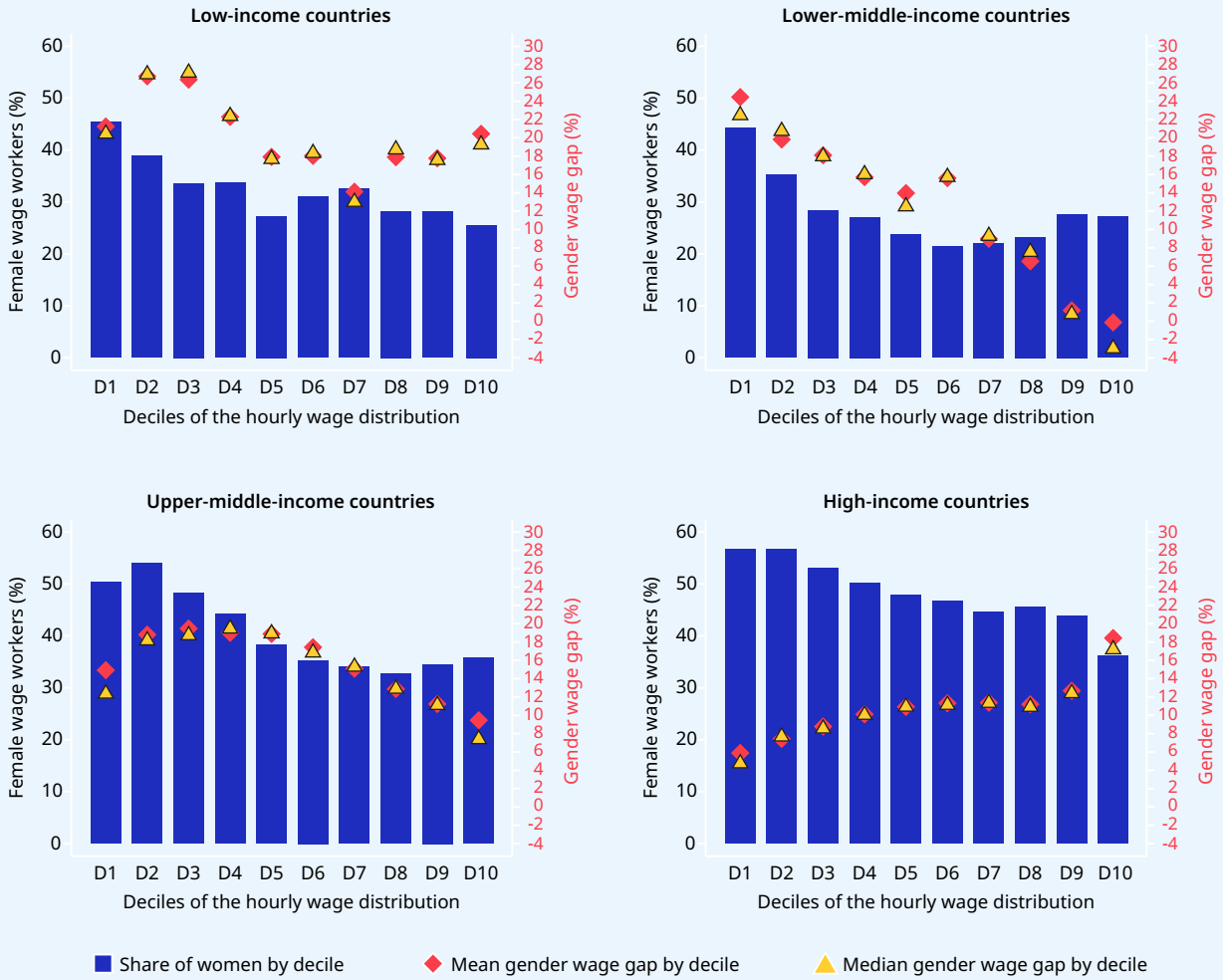
The gender wage gaps estimated among countries in the low-income group do not show a particular pattern across deciles. That said, as was seen in the middle-income countries, the gender wage gaps are particularly

32. At this extreme decile, it may be that a few well-paid women, including potential outliers, are driving the results.

high at the bottom half of the distribution, which is again probably where informal employment among women dominates. When comparing country income groups on a decile-by-decile basis, the highest gender wage gaps tend to be found in the low-income countries – with the exception of the bottom decile, where the gender wage gap is higher among lower-middle-income countries.

Table 5.1 shows the gender wage gaps estimated among all wage workers in the population for each country income group using the classic measures for estimating pay difference – namely, the raw mean and median gender wage gaps. The two measure are presented together with estimates of the mean and median factor-weighted gender wage gap, complementary measures that can help better

Figure 5.3. Share of women among wage employees in each decile of the hourly wage distribution and the decile-specific gender wage gap by country income group, latest available year (percentage)



Notes: Each of the four charts shows two vertical axes: the left-hand axis displays values for the share of women among wage workers in each decile, while the right-hand axis displays values for the decile-specific mean and median gender wage gaps. All three estimates in each chart by decile are based on the weighted value between all of the countries in the sample from the corresponding income group, with weights determined by the size of wage employment in each country and decile. The figures displayed in the charts were obtained using data from the most recent available survey (T1 in Appendix I).

Source: ILO estimates based on national survey data from 82 countries. See Appendix I for the sources of data and year of collection.

Table 5.1. Overall gender wage gaps by country income group, latest available year (percentage)

	Low-income countries	Lower-middle-income countries	Upper-middle-income countries	High-income countries
Mean raw gender wage gap	19.5	8.1	13.4	12.7
Median raw gender wage gap	17.3	14.9	19.0	11.6
Mean factor-weighted gender wage gap	14.7	15.0	21.7	13.0
Median factor-weighted gender wage gap	11.8	13.2	21.6	12.1

Notes: The wage gap is represented as the percentage by which the hourly wage of men surpasses the hourly wage of women.

Source: ILO estimates using the national datasets as described in Appendix I. See ILO, 2018a for a more detailed description in the methods available to estimate wage gaps between women and men.

capture the difference in pay between women and men in contexts where the raw mean and/or raw median offer poor summaries of the wage distribution.[33] For example, the mean raw gender wage gap numbers in table 5.1 suggest that the gender wage gap (as a percentage) in low-income countries is by far the highest among the country income groups. However, the mean factor-weighted gender wage gap numbers – which better take into account the structure of women and men's employment in the countries under consideration – result in a nearly five percentage point drop in the wage gap in low-income countries, and show significant increases in the estimates for middle-income countries, with upper-middle-income countries now shown to have largest overall gender wage gap.

5.4. Additional measures of wage inequality

Figures 5.4 to 5.7 provide an overview of the D-ratio estimates for each of the sample countries organized by country income group. As explained in box 5.1, the D-ratios offer a means of assessing income inequality by comparing wages at different locations along the wage distribution. For example, the D9/D1 ratio is expressed by dividing the wage earned at the very top of the ninth decile by the wage earned at the very top of the first decile. The ratio gives a sense of how much more someone at the bottom edge of the top 10 per cent of wage earners is paid compared to someone at the upper threshold of the bottom 10 per cent of wage earners.

Similar to what was found in the analysis of low-paid wage workers (section 5.2), these D-ratio figures show that wage inequality is

33. In general, but particularly in countries where the labour market participation of women is low, women tend to have different characteristic than men and tend to cluster around specific hourly wages. In a wage distribution characterized by such irregularities, gender wage gap estimates based on a single number, such as the mean wage or the median wage, can be difficult to interpret and may provide information that is of limited use to policymakers, as they are completely dominated and distorted by the clustering. An alternative is to group women and men wage workers into more homogenous subgroups based on specific factors that drive the differences in wage employment between women and men (for example, age, education or working time), estimate the gender wage gap in each of these subgroups, and sum the weighted average of all the subgroups using weighting that reflects the size of each of these subgroups in the population. This is the so-called "factor-weighted gender wage gap", which provides a complementary measure to the classic raw measures. For more information, see ILO 2018a for a full description of the methodology and examples of its application.

D-ratio figures show that wage inequality is highest in low-income countries and tends to decrease in middle-income countries, with high-income countries displaying considerably lower levels of wage inequality.

highest in low-income countries and tends to decrease in middle-income countries, with high-income countries displaying considerably lower levels of wage inequality. For example, using the D8/D2 ratio (figure 5.5), none of the high-income countries reaches a value of four – that is, in all high-income countries, the threshold wage at the eighth decile is always less than four times the threshold wage at the second decile. By contrast, about half of lower-middle-income countries and nearly all low-income countries show a D8/D2 ratio that exceeds the value of four. Among upper-middle-income countries, only three countries surpass the value of four in their D8/D2 ratio. As was also the case for low-paid wage workers, countries belonging to the high-income group also display less variation in terms of inequality, as measured by each of the D-ratio indicators presented.

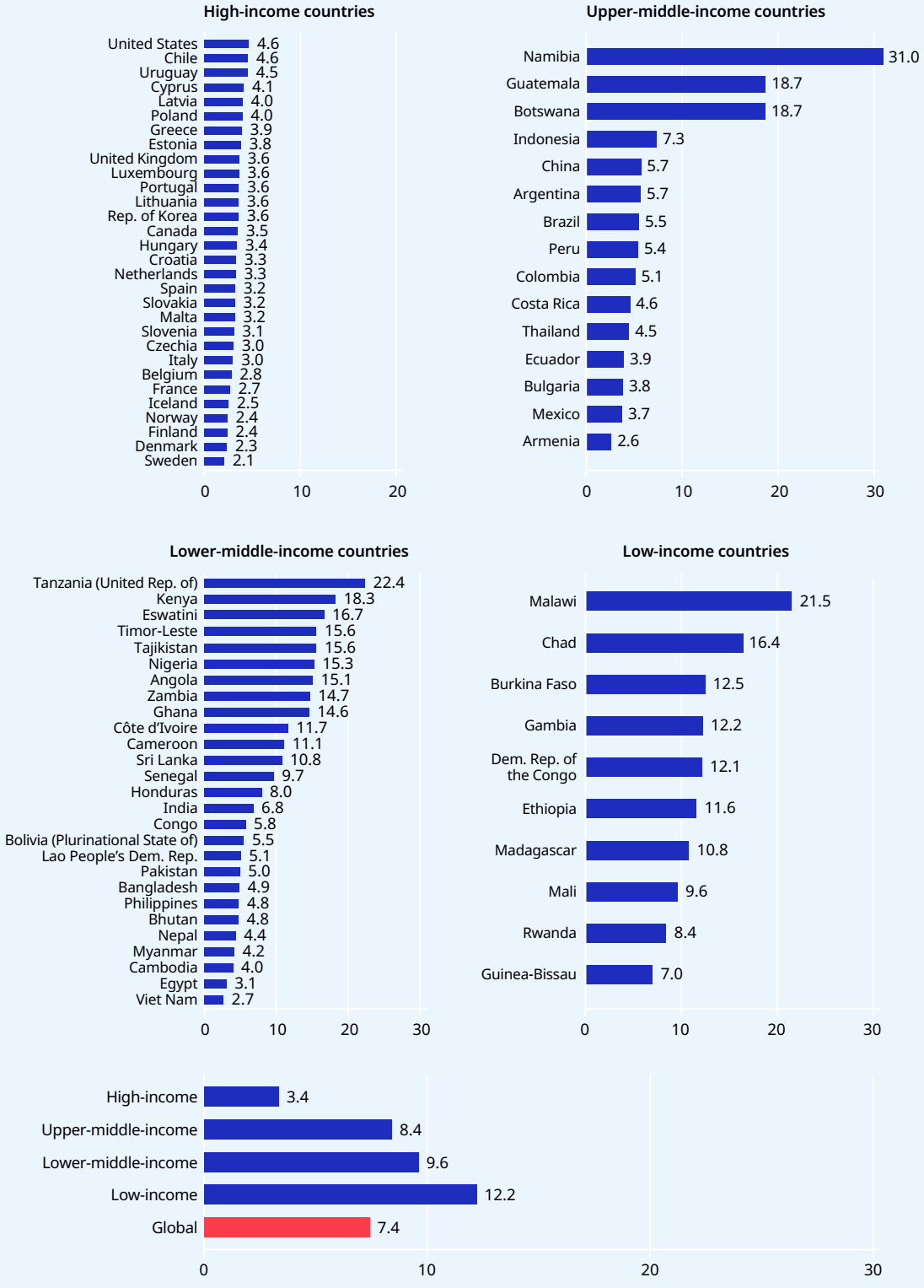
It is important to stress that the measures of inequality presented via the D-ratios show how dispersed salaries are within a population of wage employees. However, they do not give any information regarding wage levels themselves. This means that lower levels of wage inequality do not necessarily imply better conditions for wage workers, and similar levels of wage inequality in different countries might have different implications and interpretations. For instance, in high-income countries, where wage levels are generally higher, low inequality might reflect a rather equitable society where the majority of employees are able to afford a satisfactory standard of living. On the other hand, in low-income countries, a low level of inequality might indicate a compression of the wage scale for the whole population of wage employees, with most wage workers still living in poverty.[34]

The D9/D1 ratio compares the extremes of the wage distribution, and in doing so gives a sense of the maximum disparity that can be seen by comparing wage earners at the top and at the bottom of the wage distribution (figure 5.4). However, perhaps a more interesting exercise consists in comparing the D9/D5 ratio (figure 5.6), which measures wage inequality in the upper half of the wage distribution, with the D5/D1 ratio (figure 5.7), which measures wage inequality in the lower half of the wage distribution. Comparing these figures show that, on average, within country income groups, wage inequality among middle-to-top earners is higher than the wage inequality seen in the bottom half of the wage distribution. This means that, in most cases, wage distributions are skewed, with wages being more dispersed in the top half of the wage distribution and more compressed among wage workers in the bottom half. Though there are some countries, especially among low-income and lower-middle-income countries, where the opposite is true.

From a policy point of view, the comparison of D9/D5 and D5/D1 ratios can help provide an understanding of how wage inequality can be reduced. Although lowering wage inequality is likely to be achieved through a package of policies, some individual policies, such as minimum wages, can reduce inequality in the bottom half of the wage distribution by raising the wages of low-paid wage workers. Other mechanisms, such as a combination of collective bargaining and corporate social responsibility, might also help to compress the wage distribution between the minimum wage and the top of the wage

34. Indeed, during the COVID-19 pandemic many countries experienced a decline in wage inequality, not because wage levels had improved at the bottom end of the wage distribution, but because many low-paid workers lost their employment due to the restrictions imposed by the pandemic. This led to a compression of the wage distribution from below – hence a decline in wage inequality – alongside worsening living conditions for significant fractions of wage workers who saw their jobs and their means of earning a living (at least temporarily) vanish (see ILO 2022b).

Figure 5.4. D9/D1 ratio in selected countries, by country income group, latest available year (around 2021)



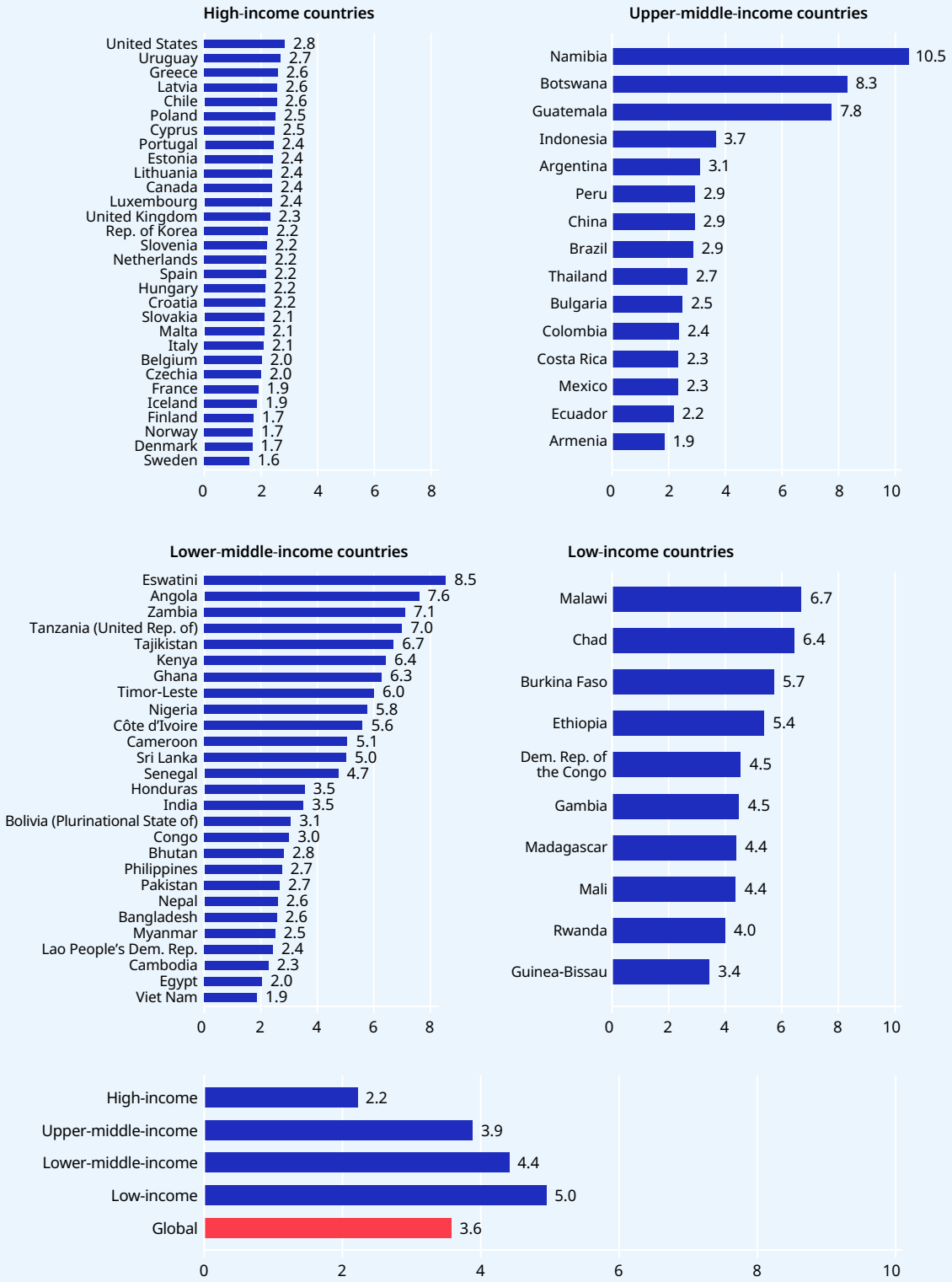
Notes: The D9/D1 ratio is the ratio between the threshold values that mark the top end of the ninth decile and the top end of the first decile. Deciles are obtained by ranking the wages of workers using hourly wages. The bottom panel includes simple averages of the D9/D1 ratios for each country income group and at the global level.

Source: ILO estimates based on national survey data from 82 countries. See Appendix I for the sources of data and year of collection. The figures displayed in the charts were obtained using data from the most recent available survey (T1 in Appendix I).

scale. Increasing labour productivity across low-productivity firms and sectors is another important channel for addressing wage inequality. There is ample evidence that labour productivity differs across sectors as well as across firms, and that the dispersion in productivity levels also determines the extent of wage inequality.

To conclude, figure 5.8 shows wage inequality using the Palma ratio (see box 5.1). This final inequality measure is consistent with the estimates of wage inequality displayed in figures 5.4 to 5.7, as well as figure 5.1, namely, wage inequality is lower in high-income countries and highest in low-income countries, with intermediate values found in middle-income countries.

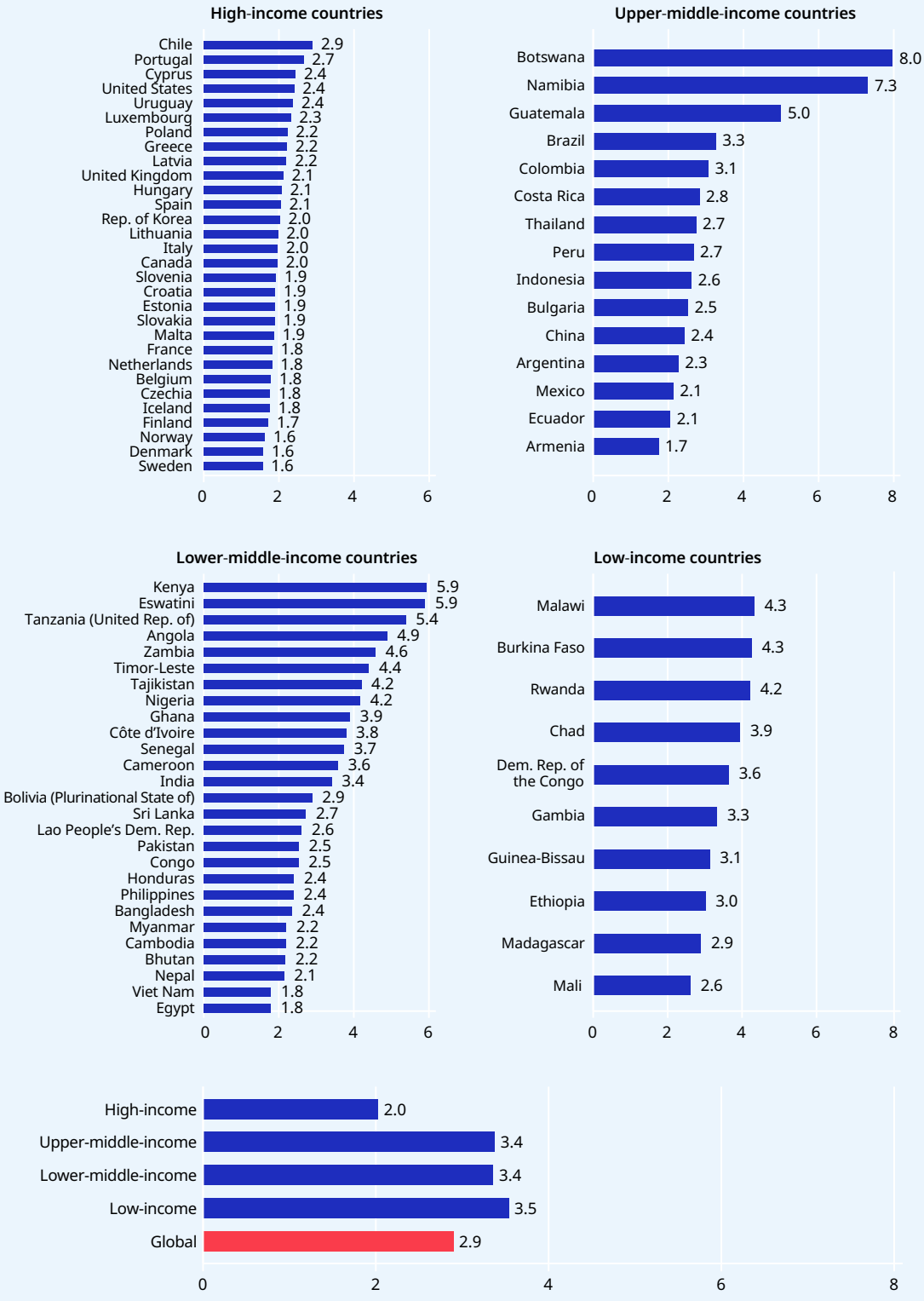
Figure 5.5. D8/D2 ratio in selected countries, by country income group, latest available year (around 2021)



Notes: The D8/D2 ratio is the ratio between the threshold values that mark the top end of the eighth decile and the top end of the second decile. Deciles are obtained by ranking the wages of workers using hourly wages. The bottom panel includes simple averages of the D8/D2 ratios for each country income group and at the global level.

Source: ILO estimates based on national survey data from 82 countries. See Appendix I for the sources of data and year of collection. The figures displayed in the charts were obtained using data from the most recent available survey (T1 in Appendix I).

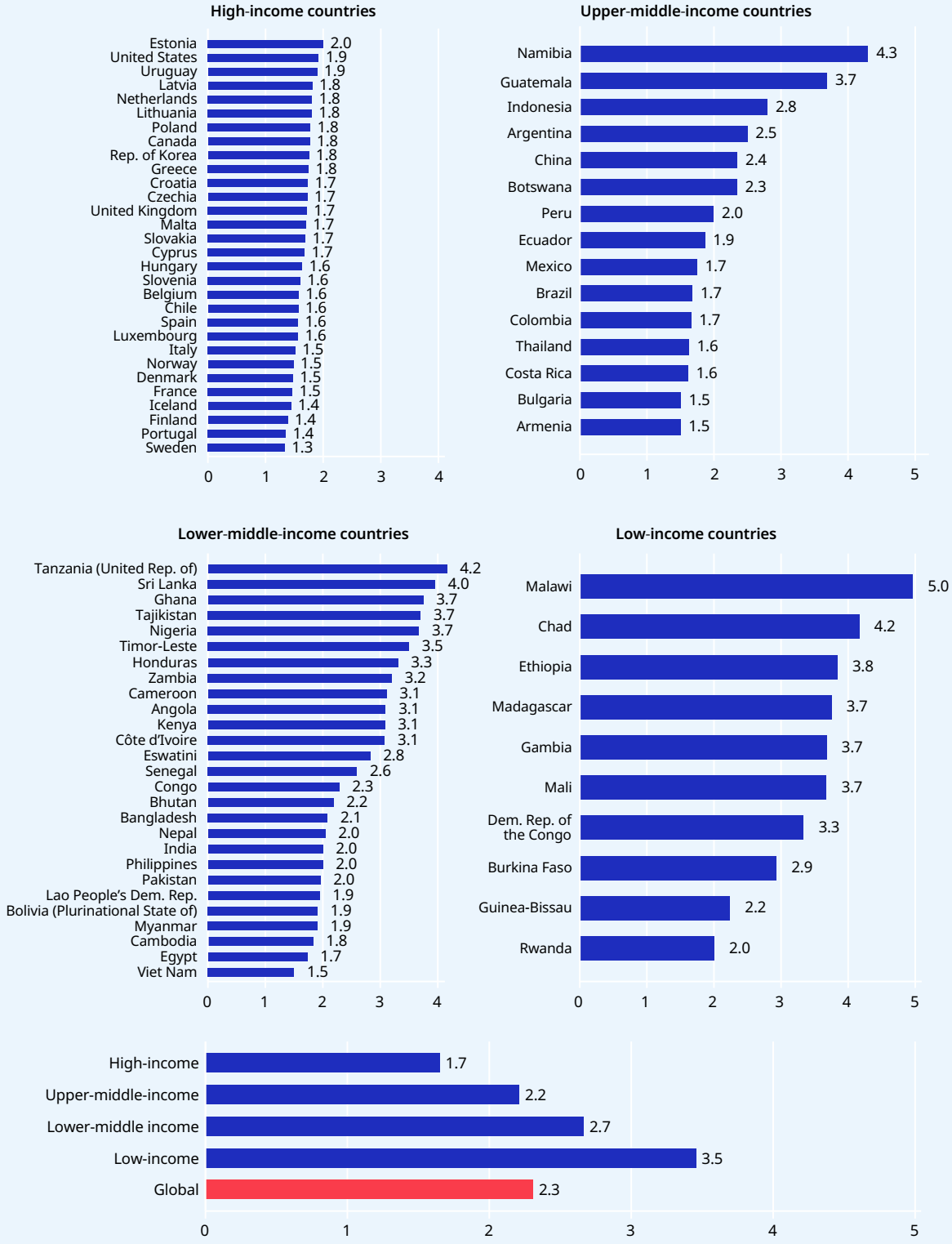
Figure 5.6. Wage inequality in the upper half of the wage distribution (D9/D5 ratio) in selected countries, by country income group, latest available year (around 2021)



Notes: The D9/D5 ratio is the ratio between the threshold value that marks the top end of the ninth decile and the median (that is, the top of the fifth decile). Deciles are obtained by ranking the wages of workers using hourly wages. The bottom panel includes simple averages of the D9/D5 ratios for each country income group and at the global level.

Source: ILO estimates based on national survey data from 82 countries. See Appendix I for the sources of data and year of collection. The figures displayed in the charts were obtained using data from the most recent available survey (T1 in Appendix I).

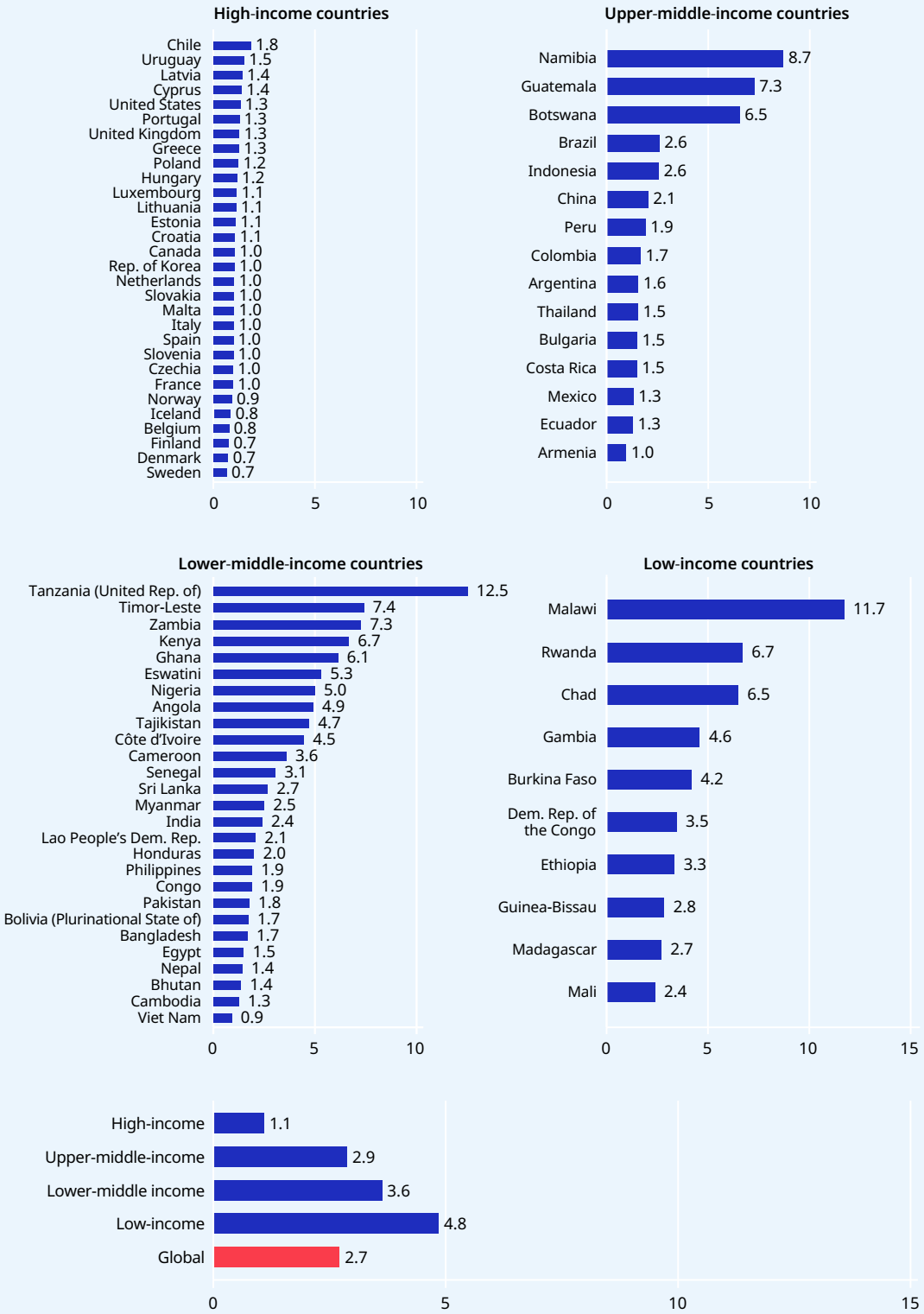
Figure 5.7. Wage inequality in the bottom half of the wage distribution (D5/D1 ratio) in selected countries, by country income group, latest available year (around 2021)



Notes: The D5/D1 ratio is the ratio between the median (that is, the top of the fifth decile) and the threshold value that marks the top end of the first decile. Deciles are obtained by ranking the wages of workers using hourly wages. The bottom panel includes simple averages of the D5/D1 ratios for each country income group and at the global level.

Source: ILO estimates based on national survey data from 82 countries. See Appendix I for the sources of data and year of collection. The figures displayed in the charts were obtained using data from the most recent available survey (T1 in Appendix I).

Figure 5.8. Palma ratio in selected countries, by country income group, latest available year (around 2021)



Note: The Palma ratio is obtained as the total wage bill accrued among wage workers in the top decile of the hourly wage distribution (tenth decile) relative to the total wage bill accrued among wage workers in the bottom 40 per cent of the hourly wage distribution (first through fourth deciles). The deciles are obtained by ranking the wages of workers using hourly wages, and the total wage bill is obtained by adding up the hourly wages of workers in each decile. The bottom panel includes simple averages of the Palma ratios for each country income group and at the global level.

Source: ILO estimates based on national survey data from 82 countries. See Appendix I for the sources of data and year of collection. The figures displayed in the charts were obtained using data from the most recent available survey (T1 in Appendix I).

The evolution of wage inequality over time

This section documents changes in wage inequality within the first quarter of the twenty-first century using 72 countries from the 82-country sample referenced in the previous sections.[35] The reason for utilizing data from just 72 countries is because, while every country in the sample had recent survey data available (that is, data from roughly 2020–21), 10 countries did not have equivalent survey data available from earlier periods. As such, it was impossible to determine the evolution of wages over time in these ten countries.

The 72 countries included in the analyses in this section are home to 73 per cent of wage employees at the global level. At country income group level, the 72 countries account for: 63 per cent of wage employees in high-income countries; 81 per cent in upper-middle-income countries; 80 per cent in lower-middle-income countries, and 28 per cent in low-income countries. Most of these countries' earlier survey data were from roughly 2005–06, with a few exceptions wherein their surveys were conducted in the early 2010s. Because there is a difference in the span of time between different countries' datasets, trends are presented in terms of average annualized change.[36] This allows for a more comparative benchmark between countries, across income groups and at the

35. Of the 72 countries included in this section, **28 are high-income countries** (Belgium, Canada, Chile, Croatia, Cyprus, Czechia, Denmark, Estonia, Finland, France, Greece, Hungary, Italy, Latvia, Lithuania, Luxembourg, Malta, the Netherlands, Norway, Poland, Portugal, Slovakia, Slovenia, Spain, Sweden, the United Kingdom, the United States and Uruguay); **15 are upper-middle-income countries** (Argentina, Armenia, Botswana, Brazil, Bulgaria, China, Colombia, Costa Rica, Ecuador, Guatemala, Indonesia, Mexico, Namibia, Peru and Thailand); **23 are lower-middle-income countries** (Angola, Bangladesh, Bhutan, the Plurinational State of Bolivia, Cambodia, Cameroon, Côte d'Ivoire, Egypt, Honduras, India, Kenya, the Lao People's Democratic Republic, Myanmar, Nepal, Nigeria, Pakistan, the Philippines, Sri Lanka, Tajikistan, Timor-Leste, the United Republic of Tanzania, Viet Nam and Zambia); and **6 are low-income countries** (the Democratic Republic of the Congo, Ethiopia, the Gambia, Madagascar, Mali and Rwanda).

36. The annualized change is calculated based on the total change between T0 and T1. T0 and T1 are different for different countries and are reported in Appendix I.

global level. Overall, the analysis indicates that real wage inequality decreased in more than two thirds of the 72 countries considered and across all country income groups.

6.1. Changes in wage inequality measures across the world

Figure 6.1 shows the annual percentage change in the Palma ratio between 2006 and 2021 (or closest years) for the 72 countries organized into country income groups.[37] The figure shows that in almost all low- and middle-income countries wage inequality has declined. In some countries the decline has been substantial, and in some others the decline has been more modest. There are only five countries among the low-income and lower-middle-income countries where wage inequality, as measured by the Palma ratio, increased over the period considered. In high-income countries the picture is more mixed, even if declines prevailed overall. So, while wage inequality has declined in a majority of high-income countries, it still managed to increase in 11 out of the 43 high-income and upper-middle-income countries examined.

The change by country income group and at the global level reported in the bottom panel of the figure confirms these findings: on average, wage inequality decreased globally, and this decline has been more pronounced in low-income countries.

Figures 6.2 to 6.5 look at changes in inequality using the alternative indicators based on decile thresholds along the wage distribution, as described in box 5.1. The decline in wage inequality at the country income group level and at the global level is consistent, irrespective of the measure of inequality used. When comparing the change in inequality in the upper and lower halves of the wage distribution – as measured by the D9/D5 and D5/D1 ratios, respectively – it is the case that, while both ratios declined in a majority of countries in all of the country income groups, the D9/D5 ratio decreased more than the D5/D1 ratio at the global level. This means that inequality decreased less in the bottom half of the wage distribution than in the top half.

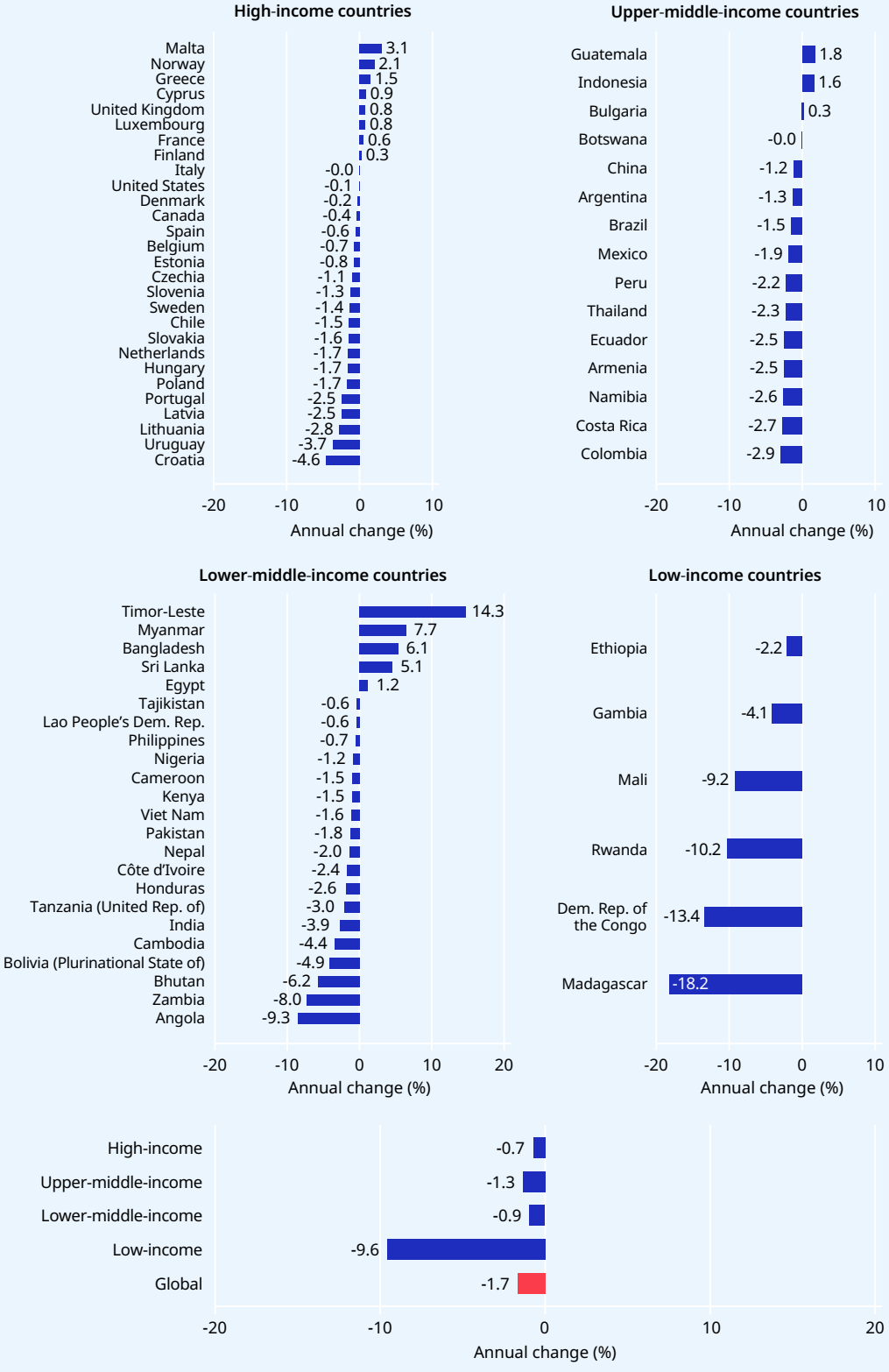
This suggests two things. First, individuals in the bottom 10 per cent of the wage distribution got closer to the median wage while, at the same time, the median wage got closer to the wage of the top 10 per cent. Second, on average, the median worker gained more ground towards individuals at the high end of the wage distribution compared to what was gained by individuals at the low end of the distribution towards the median. For a given country, the results obtained with the D9/D1 ratio and the D8/D2 ratio are usually close, except for a few cases where the variation measured by the D9/D1 ratio is larger than the variation observed in the D8/D2.

Interestingly, when we look at individual countries, there are few cases in which inequality increased in one half of the wage distribution and decreased in the other half. This does, however, seem to be the case of China. Inequality across the overall wage distribution increased modestly in China, as measured by the D9/D1 ratio, but this increase was driven by growing inequality at the low end of the wage distribution. Indeed, the D9/D5 ratio in China declined, but this decline was outpaced by a concurrent increase in the D5/D1 ratio. Other countries that displayed a similar pattern are Botswana and Guatemala.

There are also examples of countries where the opposite happened, that is, where wage inequality at the low end of the wage distribution decreased, in the face of increases at the top half of the distribution. This was the case of Namibia and, to a lesser extent, Luxembourg, where the D9/D5 ratio increased, suggesting that the wages of top earners are rising faster than the median wage, while the earnings of workers in the first decile of the wage distribution (the 10 per cent threshold) were getting closer to the median wage.

37. Note that the country income groups have been defined based on the 2024 classification.

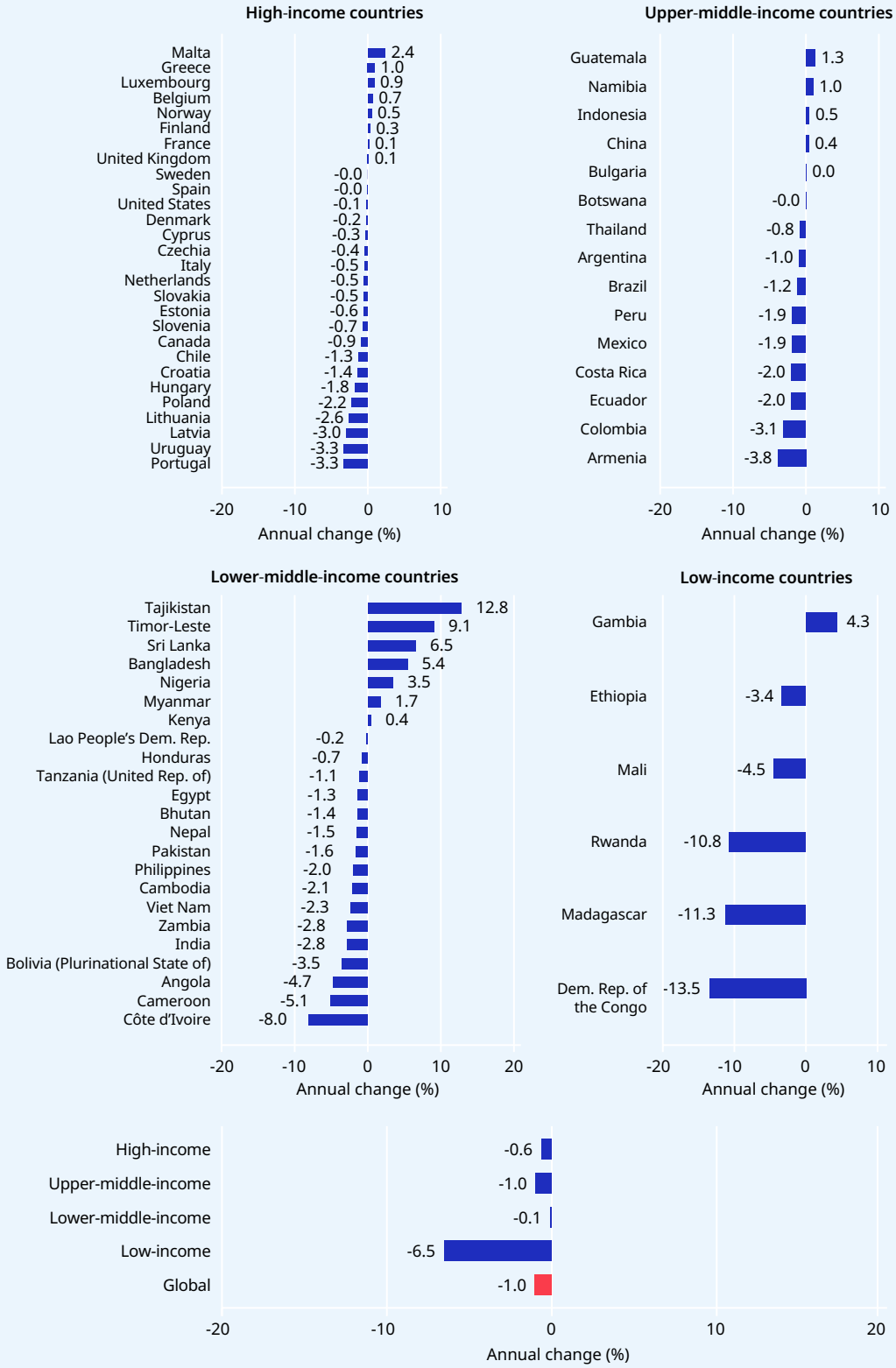
Figure 6.1. Annualized percentage change in Palma ratio in selected countries between 2006 and 2021 (or closest available years), by country income group (percentage)



Notes: See note appended to figure 5.8 for a description of how the Palma ratios are obtained. The annual percentage change is calculated comparing the Palma ratio from the earliest year (around 2006) and the latest available year (around 2021). The annualized growth rate is then calculated by smoothing the total growth rate between periods using the formula for average constant growth rate (ACGR). If Y1 is the value in the latest year, and Y0 is the value in the earliest year, and the value T is the number of years between the earliest year and latest year, the ACGR is estimated as ([(Y1/Y0)^(1/T)]-1)x100. This value is read as "the average increase in the value of the given measure on an annualized basis expressed as per cent". The bottom panel includes simple averages of the annual change for each country income group and at the global level.

Source: ILO estimates based on national survey data from 72 countries. See Appendix I for the sources of data and years of collection. The figures displayed in the charts were obtained using data from the earlier survey (T0 in Appendix I) and the most recent available survey (T1 in Appendix I).

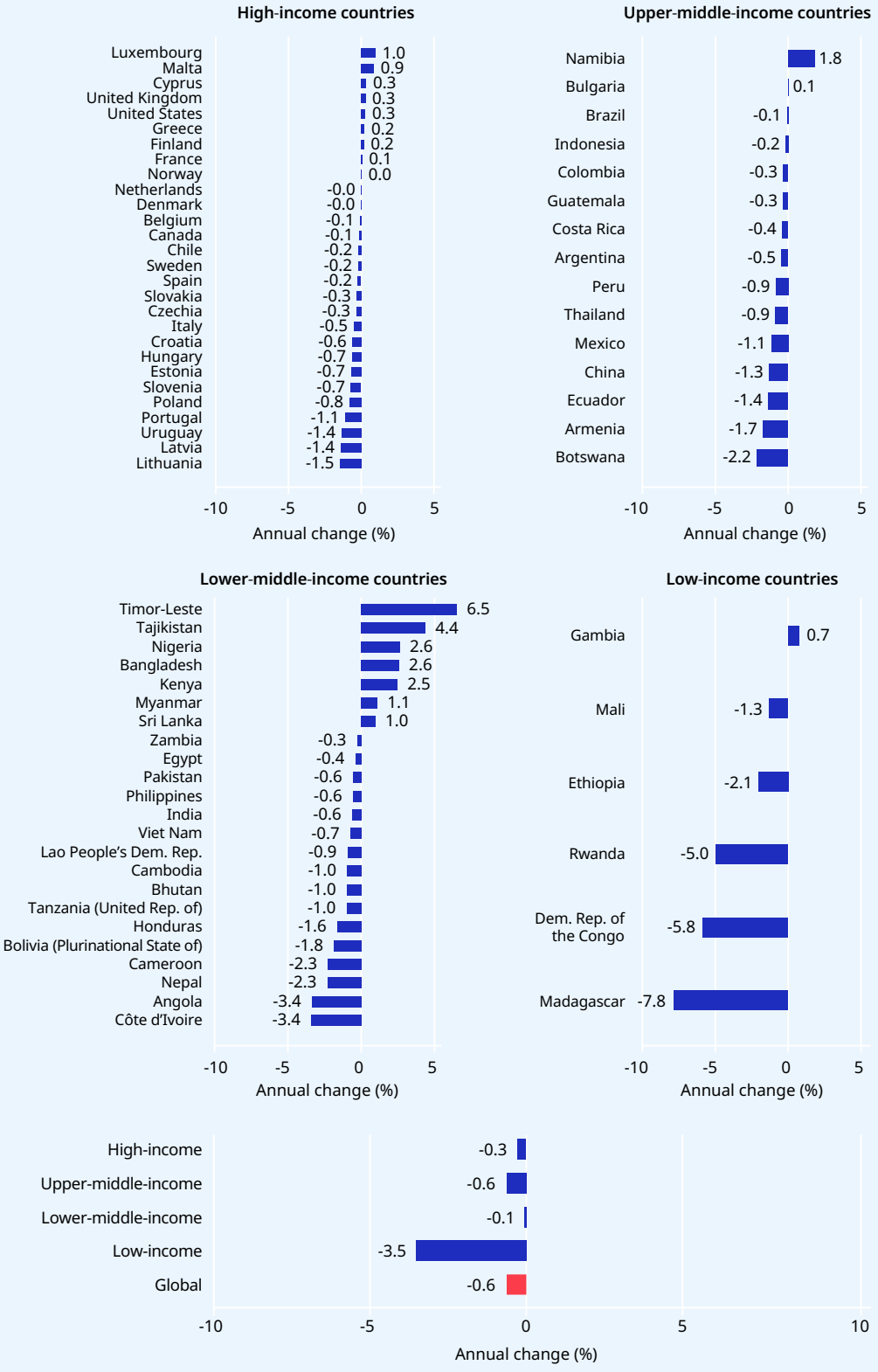
Figure 6.2. Annualized percentage change in D9/D1 in selected countries between 2006 and 2021 (or closest available years), by country income group (percentage)



Notes: See note appended to figure 5.8 for a description of how the Palma ratios are obtained. See note appended to figure 6.1 for a description of how the annualized percentage change is calculated. The bottom panel includes simple averages of the annual change for each country income group and at the global level.

Source: ILO estimates based on national survey data from 72 countries. See Appendix I for the sources of data and years of collection. The figures displayed in the charts were obtained using data from the earlier survey (T0 in Appendix I) and the most recent available survey (T1 in Appendix I).

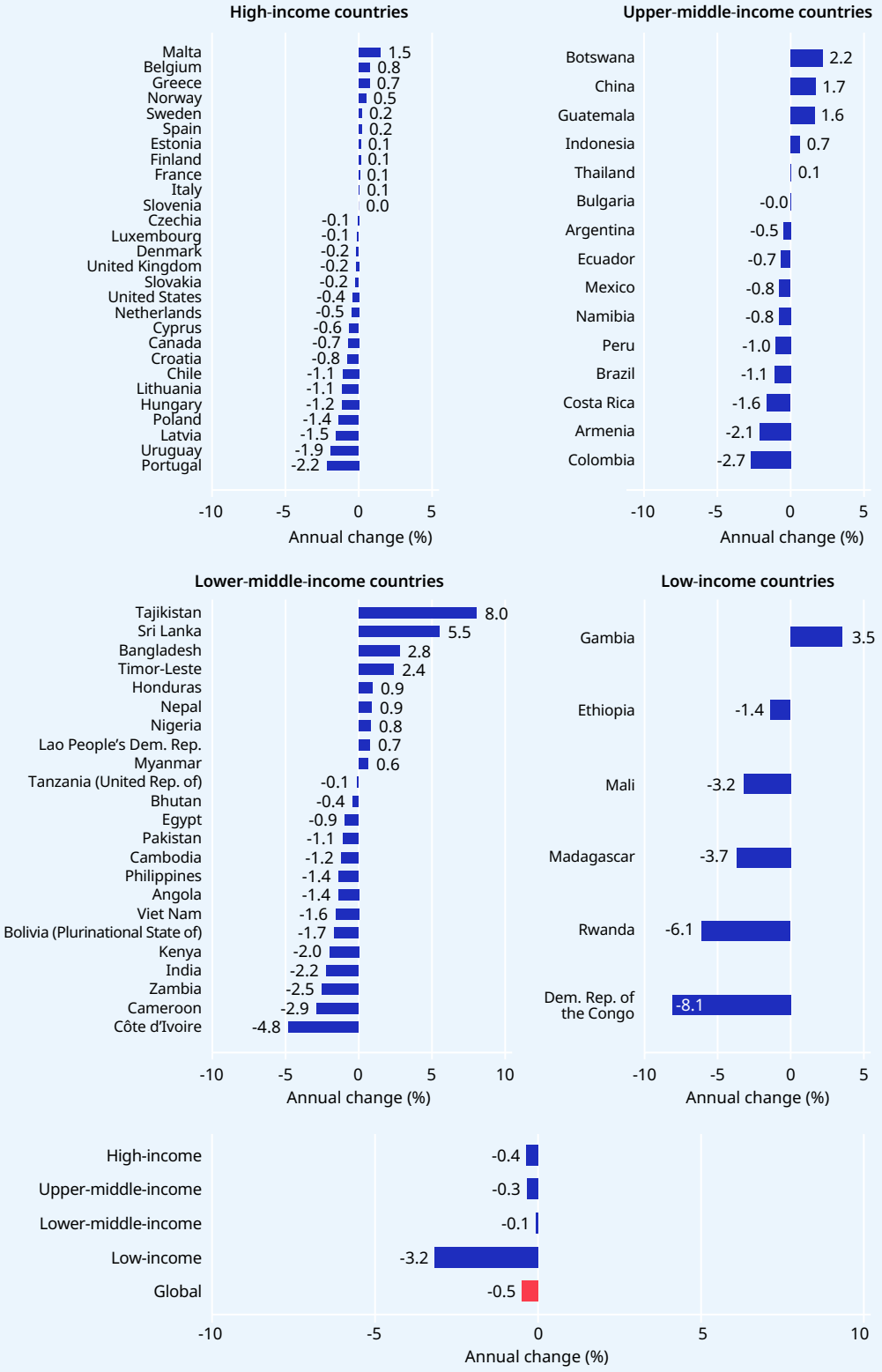
Figure 6.3. Annualized percentage change in the upper tail wage inequality (D9/D5 ratio) in selected countries between 2006 and 2021 (or closest available years), by country income group (percentage)



Notes: See note appended to figure 5.6 for a description of how D9/D5 ratios are obtained. See note appended to figure 6.1 for a description of how the annualized percentage change is calculated. The bottom panel includes simple averages of the annual change for each country income group and at the global level.

Source: ILO estimates based on national survey data from 72 countries. See Appendix I for the sources of data and years of collection. The figures displayed in the charts were obtained using data from the earlier survey (T0 in Appendix I) and the most recent available survey (T1 in Appendix I).

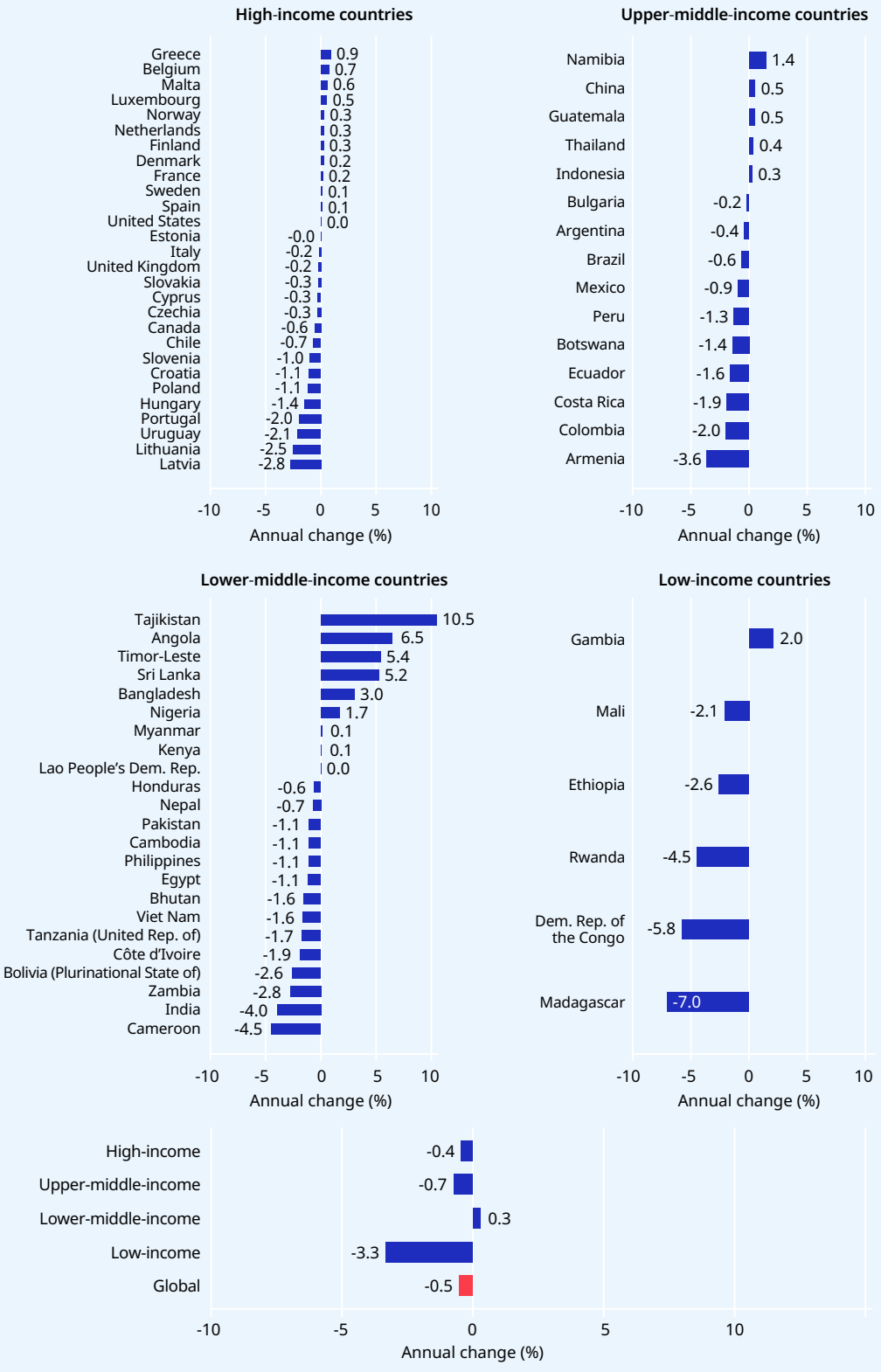
Figure 6.4. Annualized percentage change in lower tail wage inequality (D5/D1 ratio) in selected countries between 2006 and 2021 (or closest available year), by country income group (percentage)



Notes: See note appended to figure 5.7 for a description of how the D5/D1 ratios are obtained. See note appended to figure 6.1 for a description of how the annualized percentage change is calculated. The bottom panel includes simple averages of the annual change for each country income group and at the global level.

Source: ILO estimates based on national survey data from 72 countries. See Appendix I for the sources of data and years of collection. The figures displayed in the charts were obtained using data from the earlier survey (T0 in Appendix I) and the most recent available survey (T1 in Appendix I).

Figure 6.5. Annualized percentage change in the D8/D2 ratio in selected countries between 2006 and 2021 (or closest available years), by country income group (percentage)



Notes: See note appended to figure 5.5 for a description of how the D8/D2 ratios are obtained. See note appended to figure 6.1 for a description of how the annualized percentage change is calculated. The bottom panel includes simple averages of the annual change for each country income group and at the global level.

Source: ILO estimates based on national survey data from 72 countries. See Appendix I for the sources of data and years of collection. The figures displayed in the charts were obtained using data from the earlier survey (T0 in Appendix I) and the most recent available survey (T1 in Appendix I).

6.2. Real wage growth across the wage distribution

To conclude this section, figure 6.6 shows the average real wage growth between 2006 and 2021 (or closest years) for each of the four country income groups, at different points along the wage distribution. These estimates use the survey data from the 72 countries mentioned in section 6.1, applying the steps described in box 6.1. The results in figure 6.6 indicate that, in all country income groups, real wage growth has been at its highest at the lower end of the wage distribution, while it gradually declined towards the upper end of the wage distribution. This is consistent with the finding of reduced wage inequality obtained in previous sections. For all income groups, real wage growth dropped substantially after the 99th percentile.

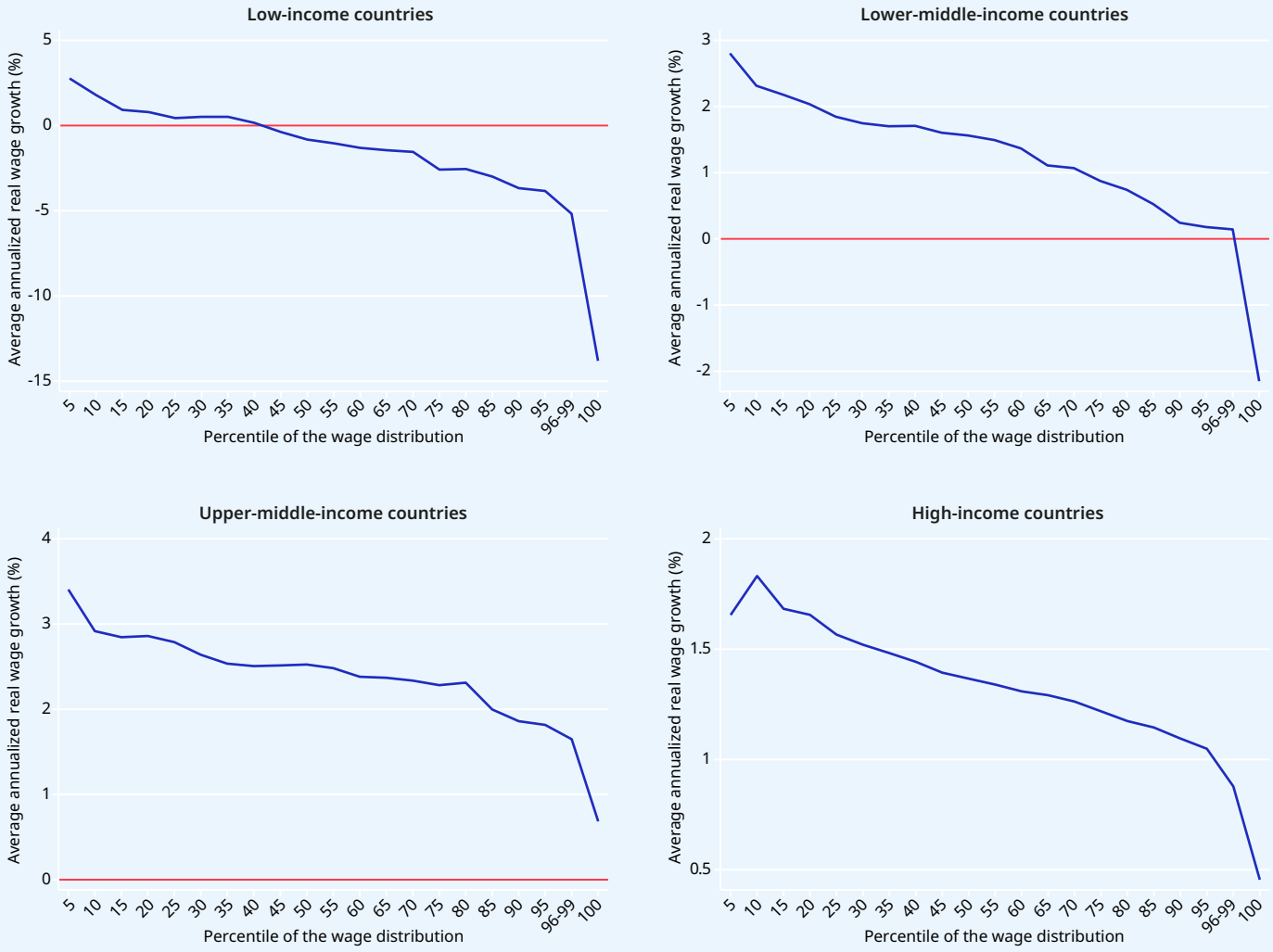
To summarize, this section highlighted widespread decreases in wage inequality within countries since the beginning of the twenty-first century. Unlike household income inequality, which has been extensively investigated, the literature on wage inequality and its evolution remains scarce. Existing literature on wage inequality mostly focuses on advanced economies and describes increases in wage inequality between the 1980s and the beginning of the twenty-first century. More recently, several authors have started to unveil evidence of decreasing wage inequality in a limited number of countries, such as European countries (Zwysen 2024), Latin America (Rodríguez-Castelán et al. 2022), the United States (Yglesias 2023) and the United Kingdom (Schaefer and Singleton 2020). To our knowledge, this is the first study which, through examining a large sample of countries belonging to different country income groups, finds evidence of a generalized decrease in wage inequality around the world. Given the challenges involved in studying changes in wage inequality using existing data sets, more research will be required in the future to confirm these findings.

Box 6.1. Obtaining the average wage growth at different points of the wage distribution

To generate the charts in figure 6.6, a multistep process was used:

1. In order to compare wages in real terms, for each of the 72 countries, hourly wages from T0 (around 2006) were adjusted for inflation to reflect their purchasing power at T1 (around 2021).
2. For each of the 72 countries under consideration, the wages of wage employees were ranked according to their hourly wages. This was done with wage data for the two separate time points, namely 2006 and 2021 (or closest available years).
3. For each time point and on a country-by-country basis, the ranked wages were then divided into 21 percentile groups: 19 that each contain 5 per cent of ranked employee wages, plus two additional percentile groups at the top end – one which contains the 96–99 percentile of wages and a final group that covers the top 1 per cent of the wage distribution.
4. For each time point and on a country-by-country basis, the average real wage was calculated for each of the above-mentioned percentiles.
5. The country-specific and percentile-specific annualized real wage growth was then calculated using a formula for compounded annual growth, comparing the average wage for each percentile in 2006 (or closest available year) against the average wage for the equivalent percentile in 2021 (or closest available year).
6. The estimates shown in figure 6.6 for each country income group are the result of averaging the annualized real wage growth for each of the 21 percentiles among countries that belong to the same income group.

Figure 6.6. Average annualized real wage growth by percentile of the wage distribution between 2006 and 2021 (or closest available year), by country income group (percentage)



Note: See box 6.1 for explanation of how these charts were created.

Source: ILO estimates based on national survey data from 72 countries. See Appendix I for the sources of data and years of collection. The figures displayed in the charts were obtained using data from the earlier survey (T0 in Appendix I) and the most recent available survey (T1 in Appendix I).

7

The global wage distribution and the characteristics of wage employees

7.1. The global wage distribution

How would the wage distribution look like if we assumed that all wage employees in the world belonged to one single country and shared the same wage structure? Constructing such a global wage distribution provides an interesting picture of global inequality, taking into account the differences of purchasing power across the world. This global wage distribution complements previous estimates of global income inequalities that have been regularly published since the first decade of the twenty-first century.[38] Box 7.1 details the procedure followed to construct the global wage distribution.

Figure 7.1 depicts the global wage distribution based on full-time equivalent (FTE) monthly wages expressed in 2021 international US$.[39]

38. In particular, since 2011, the World Inequality Lab, and its World Inequality Database, are behind the *World Inequality Report*, which regularly updates the global income distribution to keep a check on changing inequality on an annual basis. Some multilateral institutions, in particular the IMF, use the annual *World Inequality Report* to feed into the discussion on global inequalities, thus providing empirical evidence for their daily operations (see, for example, Stanley 2022).

39. The data used for all estimates in sections 7.1 and 7.2 are from the same 82 countries as in section 5, and for which relevant country-level survey data covering recent times are available (see section 5 for more details). For comparability across countries, FTE monthly wages are obtained using a standardized formula that multiplies hourly wages by 40×52 and dividing by 12, to reflect a 40-hour working week.

Box 7.1. Constructing the global wage distribution

The construction of the global wage distribution using survey data requires a sequence of steps that overcome the hurdles implied by the nature and time of each country's dataset.

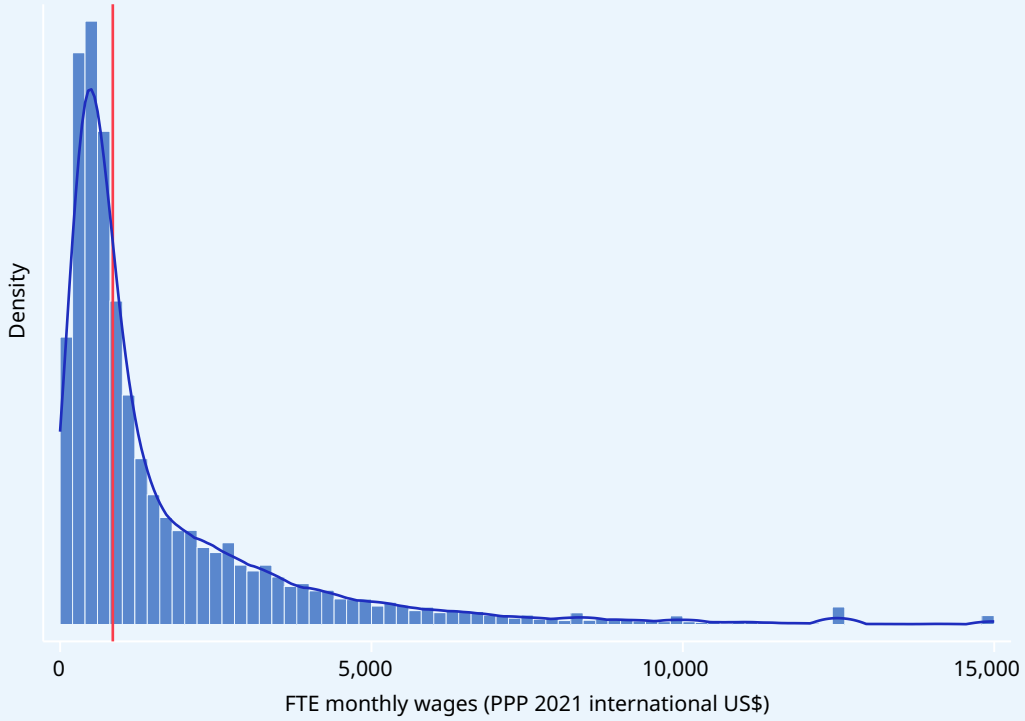
- First of all, not all of the "latest available" surveys were collected in the same year (in most cases circa 2021–23, see Appendix I), which means that one cannot simply use the data from all of the latest-year surveys without first applying adjustments that make the wages from each country time-comparable. Thus, in a first step, the wages of all employees were adjusted using inflation to reflect the levels that would have been found in 2021, which was established as the reference year. The assumption behind this adjustment is that wages have evolved at the same pace as inflation, where the latter is measured using each country's CPI. While the assumption that wages have increased in line with inflation is a strong one, in this context the effect of applying this assumption is likely to be small, as most countries have data that were collected close to 2021. There are only a few countries for which data were collected in 2022 or later, which is the period where inflation peaked and the assumption of wages growing in line with inflation might be more problematic.
- The second step involved adjusting the number of wage workers to what was observed in 2021 for countries whose survey data are not from 2021. This was done by weighting each wage worker in each of these countries by the rate of growth (or decline) in wage employment between the survey year and the year 2021.
- The third step entailed adjusting wages to account for differences in purchasing power by using the PPP conversion factor for private consumption (local currency unit per 2021 international US$).
- The fourth and final step was to weight the wage of each employee according to their survey weight. Doing so allows the wage distribution to accurately represent the target population within each country and, at the same time, inflate the sample to the level of the population in that given country. This ensures that each country contributes to the global wage distribution in a way that is proportional to its population of wage employees.

The two first steps described above were followed to construct the 2006 global wage distribution that is compared with the 2021 global wage distribution in section 7.3 – namely, adjustments to reflect the wage levels and number of employees in 2006, in cases where data were collected in a different year. Then, to compare numbers in real terms, the wages in 2006 were adjusted for inflation to reflect their purchasing power in 2021. Finally, for each country, wages were divided by the 2021 PPP to reflect their value in 2021 international US$.

The vertical axis represents density, a concept closely related to frequency; the higher the bar, the higher the probability to find individuals in a given bin.[40] For better graphical representation the distribution is censored at US$15,000 PPP, meaning that each observation above that value is replaced with the value of US$15,000 PPP. As expected, the dis-

40. A "bin" refers to the width of the histogram bar. The height of the bins represents the density, or an approximation of the probability of finding wage workers in each of the bins in the histograms. Comparing the height of the bins between figures 7.1 and 7.2 helps one to understand better the ranking of wage workers by country income group. In both figures each of the bins (bars) represents a range of earning covering US$200 PPP – thus the global median in figure 7.1 sits in the fifth bin with a height such that the chance of drawing a wage worker earning between US$800 and US$1,000 in PPP per month in the global village is about 0.03 per cent. Considering that wage workers are far more prevalent in high-income countries, this country income group has a significant impact at determining the probability of finding wage workers at all bins across the wage distribution, including in the lowest bins, where high-income countries have a relatively small (overall) representation in the global distribution. For example, in figure 7.1, drawing a wage worker from the global village and who belongs in the second bin (earning between US$200 and US$400 PPP per month) is approximately equal to 0.072 per cent. Once the estimates distinguish between country income groups (figure 7.2) the probability of finding a wage worker in the second bin increases to 0.13 per cent among workers in low-income countries, and to 0.11 per cent among workers in middle-income countries. In the case of high-income countries, the same probability declines to about 0.013 per cent.

Figure 7.1. Global wage distribution in 2021 using full-time equivalent monthly earnings
(PPP 2021 international US$)



Notes: See box 7.1 for a detailed description of how the global wage distribution was obtained. The global wage distribution is based on FTE monthly wages expressed in 2021 international US$. For comparability across countries, FTE monthly wages were obtained by multiplying hourly wages by 40×52 and dividing by 12, to reflect a 40-hour working week.

Source: ILO estimates based on national survey data from 82 countries. See Appendix I for the sources of data and year of collection. The figures displayed in the chart were obtained using data from the most recent available survey (T1 in Appendix I).

tribution is highly skewed to the right, with a much larger share of individuals located at the low end and a small minority earning progressively higher wages. The average FTE monthly wage stands at US$1,728 PPP FTE per month, while the median, represented by the red line in the chart, is less than half of that figure at US$846 PPP FTE per month.[41]

In 2021, the bottom 1 per cent of wage workers globally earned below US$62 PPP FTE per month. For the bottom 10 and 25 per cent of wage workers globally, this number is US$250 and US$453 PPP FTE per month, respectively. On the other hand, in 2021 the top 25 per cent of wage workers at the global level earned more than US$2,100 PPP FTE per month, while the top 5 and 1 per cent earned more than US$6,037 and US$11,111 PPP FTE per month, respectively.

Having constructed the global wage distribution, it is also possible to construct a wage distribution for each country income group by grouping countries according to their classification – that is, low-income, middle-income[42] and high-income countries – and applying the procedure described in box 7.1 to each

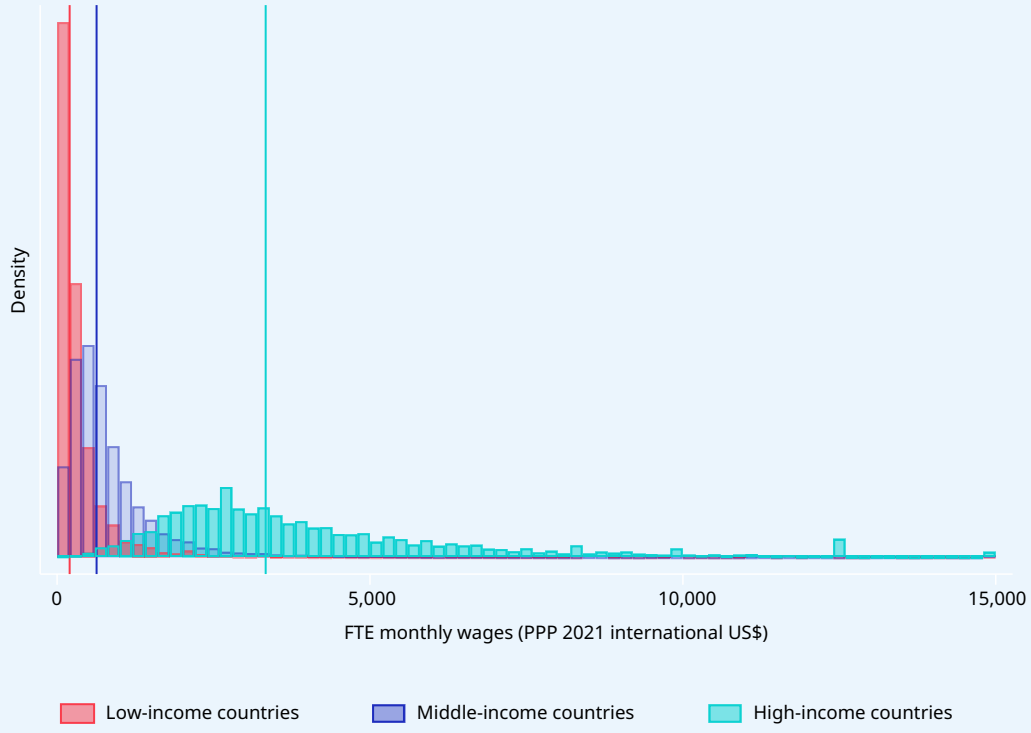
41. The mean is calculated on the uncensored sample, which uses the actual wages, hence allowing values above US$15,000 PPP.
42. For graphical presentation purposes, lower-middle-income and upper-middle-income countries are considered together, as their distributions are similar.

of the groups separately. Figure 7.2 displays the three distributions that result from pooling together countries belonging to the same income group. As was the case in figure 7.1, the country income group distributions depicted in figure 7.2 are based on FTE monthly wages expressed in 2021 international US$.

Figure 7.2 clearly shows how each of the three country income groups contributes to shaping the global wage distribution displayed in figure 7.1. First of all, figure 7.2 depicts a clear ranking of wages with respect to the country income group to which they belong. Thus, in figure 7.2 it is clear that wage workers in low- and middle-income countries are crammed at the low end of the global wage distribution depicted in figure 7.1. Figure 7.2 also shows that wage workers in high-income countries are mostly located in the middle and the upper tail of the global wage distribution depicted in figure 7.1, with only a very small fraction of these appearing among the lower bars. In fact, the ranking of wage workers by country income group within the global distribution is so clear that the shapes of figures 7.1 and 7.2 are almost identical despite the change in the probabilities of finding wage workers in each of the "bins" when the distributions are presented by income group.

Moreover, and consistent with the estimates in figure 5.1 and figures 5.4 to 5.8, there is far more wage inequality among low- and middle-income countries than among high-income countries. This can be seen in figure 7.2 as the

Figure 7.2. Global wage distribution in 2021 using full-time equivalent monthly earnings, by country income group (PPP 2021 international US$)



Notes: See box 7.1 for a detailed description of how the global wage distribution was obtained. The same fours steps described in box 7.1 were followed to obtain the country income group distributions, but instead of pooling together all countries, country data were aggregated at the country income group level.

Source: ILO estimates based on national survey data from 82 countries. See Appendix I for the sources of data and year of collection. The figures displayed in the chart were obtained using data from the most recent available survey (T1 in Appendix I).

The top 10 per cent of the world's wage earners earn almost four times more than the bottom 50 per cent of the world's wage earners.

wage distributions of low- and middle-income countries are skewed and cramped at the low end, but nevertheless display a long upper tail. In contrast, the wage distribution of high-income countries shows greater spread with a significant number of workers surrounding the region above and below the median wage. This results in a bell-shaped distribution (indicating a working middle class relative to the global population of wage employees) before an upper tail similar to that of the global wage distribution. In fact, while the vast majority of individuals earning above US$3,000 PPP (and virtually all individuals earning above US$10,000 PPP) are from high-income countries, there is a small share of wage workers from low-income and middle-income countries spreading into the upper tail of figure 7.2. This is the fraction that explains the high levels of wage inequality in low- and middle-income countries, in addition to contributing to high levels of wage inequality at the global level.

Figure 7.2 also shows vertical lines to indicate the location of the median wage earner in each of the country income groups. These lines show that the median wage for low-income, middle-income and high-income countries are US$201, US$630 and US$3,333, respectively, with all three figures expressed in FTE 2021 international US$. To put these estimates in perspective, they show that 50 per cent of wage workers in low-income countries earn wages whose purchasing power is 6 per cent or less of the purchasing power of the middle earner in high-income countries. In the case of middle-income countries, 50 per cent of wage workers in these countries earn wages whose purchasing power is 19 per cent or less than the purchasing power of the middle earner in high-income countries.

Table 7.1. Share of the total wage bill at different locations along the global wage distribution (figure 7.1) and the income group-specific wage distributions (figure 7.2) in 2021 (percentage)

Country income group	Share of the total wage bill among the...						
	Bottom 1%	Bottom 10%	Bottom 25%	Bottom 50%	Top 25%	Top 10%	Top 1%
Global	0.01%	0.54%	2.51%	10.41%	65.38%	37.68%	8.80%
Low-income	0.01%	0.76%	3.58%	13.91%	65.03%	42.07%	9.78%
Middle-income	0.01%	0.51%	2.31%	8.01%	70.61%	41.74%	10.51%
High-income	0.05%	1.86%	7.93%	24.11%	51.03%	27.54%	3.92%

Notes: See box 7.1 for a detailed description of how the global wage distribution was obtained. To obtain the country income group distributions, the same fours steps described in box 7.1 were followed, but instead of pooling together all countries, country data were aggregated at the country income group level. Note that while the global wage distribution is constructed using FTE monthly earnings, which is equivalent to using hourly wages, the total wage bills (TWBs) used for this table are based on actual monthly earnings, which are what wage earners accumulate at the end of a given working period. To obtain the TWB at a given location along the wage distribution, individuals' wages are first ranked according to their hourly wage, and then the actual monthly wages of individuals up to a certain percentile (or starting from a certain percentile) are added up. The share of the TWB accrued by a certain group is obtained by dividing the TWB of the group by the total wage bill in the economy (the sum of wages of all wage employees).

Source: ILO estimates based on national survey data from 82 countries. See Appendix I for the sources of data and year of collection.

Table 7.1 shows how the total wage bill, estimated using constant US$ PPP, is distributed globally and by country income group.[43] Globally the bottom 1 per cent of wage workers earns about 0.01 per cent of the total wage bill in constant PPP terms, while the bottom 10 per cent only earn about 0.5 per cent of the total wage bill. The bottom 25 per cent and 50 per cent accumulate just above 2.5 per cent and 10.4 per cent of the total wage bill, respectively. On the other hand, the top 1 per cent of wage workers accrue almost 9 per cent of the total global wage bill in PPP terms, while the top 10 per cent accumulates close to 38 per cent. In other words, the top 10 per cent of the world's wage earners earn almost four times more than the bottom 50 per cent of the world's wage earners. When comparing the figures across different country income groups, it is evident that inequalities are more pronounced in the low- and middle-income groups. This is indicated by the fact that, in these income groups, wage earners at the bottom of the wage distribution accumulate a smaller share of the total wage bill compared to those earners in high-income countries. Yet, the opposite is true about the share accumulated by top earners in the low- and middle-income groups compared to that accumulated by those earners in high-income countries.

Inequalities are found to be decreasing as the country income level increases, with all inequality measures being at their highest among low-income countries and at their lowest among high-income countries.

To conclude the analysis on global wage inequality, table 7.2 presents the inequality indicators described in box 5.1 applied to the global wage distribution and the wage distribution of each country income group. The estimates in table 7.2 add a new dimension to those displayed in figures 5.4 to 5.8 as they make reference to global estimates and estimates for country income groups. Given that, for figures 7.1 and 7.2, all countries (whether globally or in a given income group) contribute to the same wage distribution, the level of inequality measured is not only driven by wage differences within countries (within-country inequality), but also by differences in the purchasing power of wages across the world (inequality between countries). In line with the findings so far, inequalities are found to be decreasing as the country income level increases, with all inequality measures being at their highest among low-income countries and at their lowest among high-income countries.

The D9/D1, D8/D2 and D9/D5 ratios measured using the global wage distribution are higher than the corresponding figures estimated for each of the country income groups. This is also largely true for the global D5/D1 ratio, but with the notable exception that this ratio is lower than the D5/D1 ratio measured for low-income countries. Looking at the Palma ratio measured using hourly wages the situation is similar, with the figure at global level being second only to what was measured for the low-income countries. These findings reflect the intense skewing of the wage distribution in low-income economies towards the bottom of the wage distribution. Wage inequality between countries is substantial, as clearly evidenced by very different values for the mean and median wages in different country income groups (see table 7.3 in section 7.3).

43. Here we explore the outcomes of figures 7.1 and 7.2 by estimating the total wage bill at different locations within the global wage distribution, and for each of the country income groups, by selecting locations that cover the full range of values across these distributions.

Table 7.2. Inequality measures computed along the global wage distribution and the wage distributions by country income group, 2021 (based on hourly wages)

Country income group	Palma ratio	D9/D1 ratio	D8/D2 ratio	D9/D5 ratio	D5/D1 ratio
Global distribution	4.82	16.82	6.78	4.96	3.39
High-income	1.44	4.75	2.71	2.36	2.02
Upper-middle-income	2.24	6.57	3.10	2.60	2.53
Lower-middle-income	3.16	8.29	3.78	3.04	2.69
Low-income	5.28	15.88	6.16	3.82	4.16

Notes: The inequality indicators are calculated starting from the global or country income group wage distribution. See box 7.1 for a detailed description of how the global wage distribution was obtained. To obtain the country income group distributions, the same fours steps described in box 7.1 were followed, but instead of pooling together all countries, country data were aggregated at the country income group level. See the notes in figures 5.3 to 5.7 for information on how each of the inequality indicators is calculated.

Source: ILO estimates based on national survey data from 82 countries. See Appendix I for the sources of data and year of collection.

7.2. The characteristics of wage employees at different locations along the wage distribution

The present section looks at how workers' characteristics differ along the wage distributions built at the country income group level, and whether the pattern of characteristics across the wage distribution is the same, or differs, between these country income groups.

For each income group, figures 7.3 to 7.6 explore the relationship between workers' characteristics (age, education, economic activity and occupation) and their wages, for each sex, through their relative location across the wage distribution. In this regard, wage workers are classified into three groups: bottom earners, middle earners and top earners, depending on whether their salary falls in the bottom 20 per cent, the middle 60 per cent or the top 20 per cent of the hourly wage distribution, respectively. The share of individuals belonging to each of these three groups is then reported against a specific characteristic, for each sex. For instance, figure 7.3 depicts the share of top, middle and bottom earners (women and men) in six age groups.

Figure 7.3 shows that workers at the bottom end of the wage distribution are more likely to be either young (until 29 years old) or older (60 years old and over), particularly in the case of women. On the other hand, middle-aged employees are more likely to be represented in the middle range of the wage distribution. High-income countries represent an exception, as middle-aged and older wage workers have a similar probability of being among either the top or bottom earners.

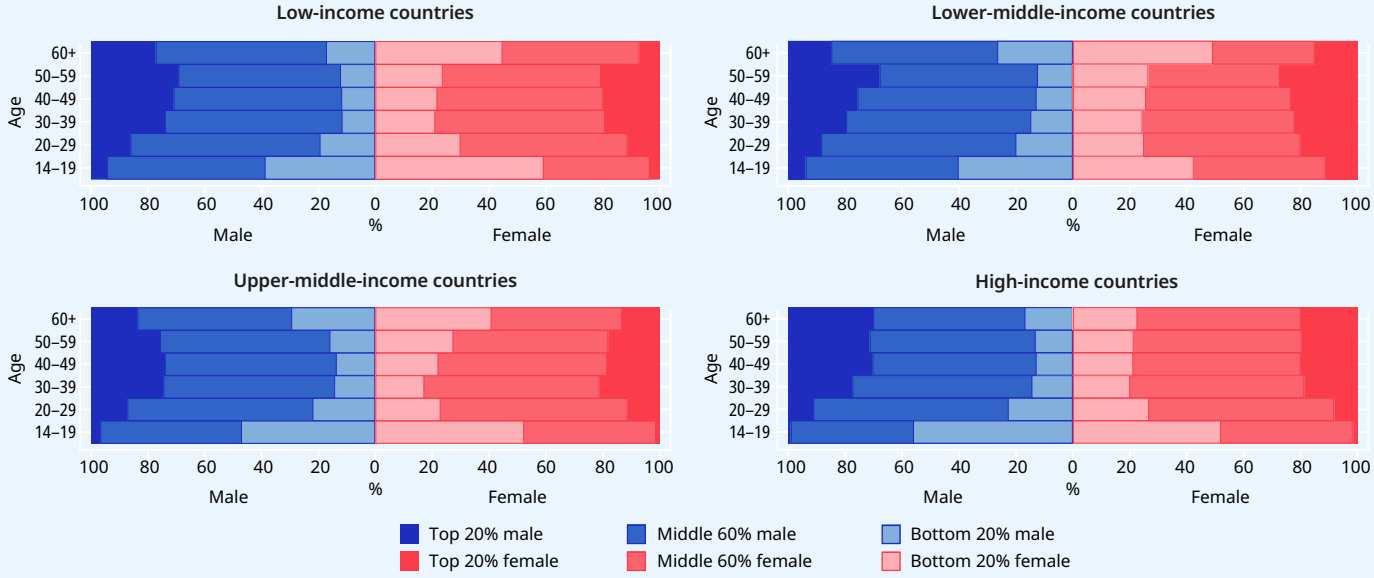
Figure 7.4 reveals that the lower the level of education, the higher the chance of being in the bottom 20 per cent of the wage distribution. While having a university degree increases the probability of being among top earners and decreases the probability of being among the bottom earners, it does not necessarily guarantee a high-paying job. This is especially true in high-income and upper-middle-income countries, where a sizeable share of

university graduates appear at the bottom of the wage distribution.

Figure 7.5 indicates that there are differences across country income groups when it comes to the distribution of earnings across economic activities. For all country income groups, "agriculture, forestry and fishing" and "hotel and restaurant services" are the economic activities with both the highest share of bottom earners and the lowest share of top earners. The economic activity with the highest share of top wage earners in high-income countries is, by far, "financial and real estate services". While this economic activity also has a high share of top wage earners in the three other country income groups, "educational services" is the one with the highest figures.

To conclude, figure 7.6 shows that high-paid positions are more prevalent among CEOs, managers and professionals, which are also occupations wherein the share of workers within the bottom 20 per cent of earners is contextually very low. On average, the higher the level of competency required to perform a certain occupation, the lower the share of bottom earners and the higher the share of top earners.

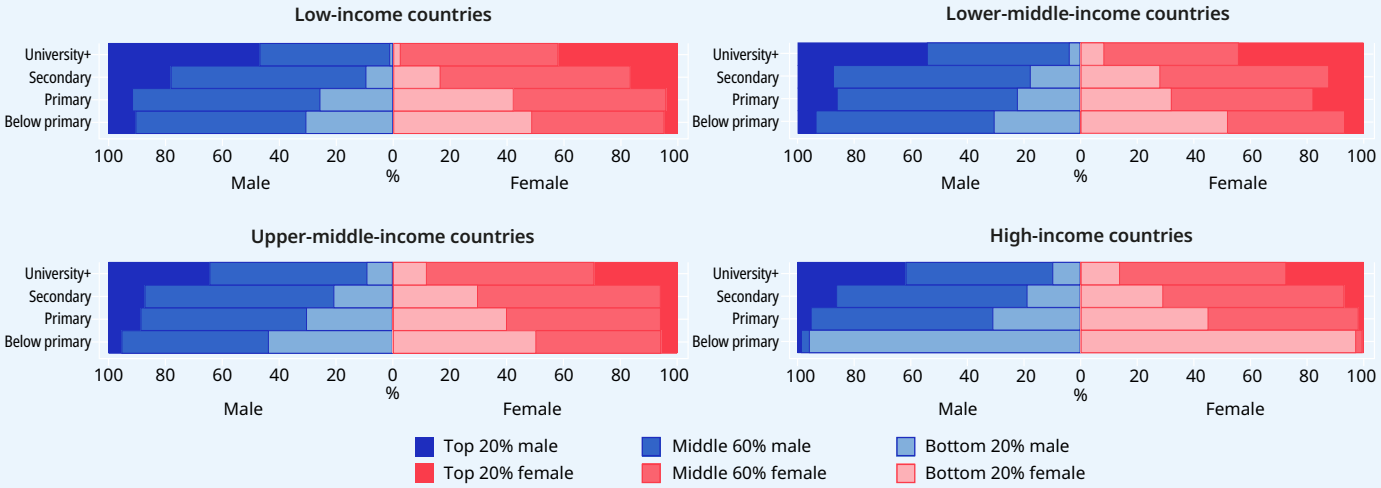
Figure 7.3. Distribution of top, middle and bottom earners by age group, sex and country income group, as per the 2021 hourly wage distribution (percentage)



Notes: The charts presented are based on the country income group wage distributions obtained as described in figure 7.2. The classification into top, middle and bottom earners is based on hourly wages and refers to the top two deciles, the middle six deciles and the bottom two deciles, respectively.

Source: ILO estimates based on national survey data from 82 countries. See Appendix I for the sources of data and year of collection. The figures displayed in the charts were obtained using data from the most recent available survey (T1 in Appendix I)

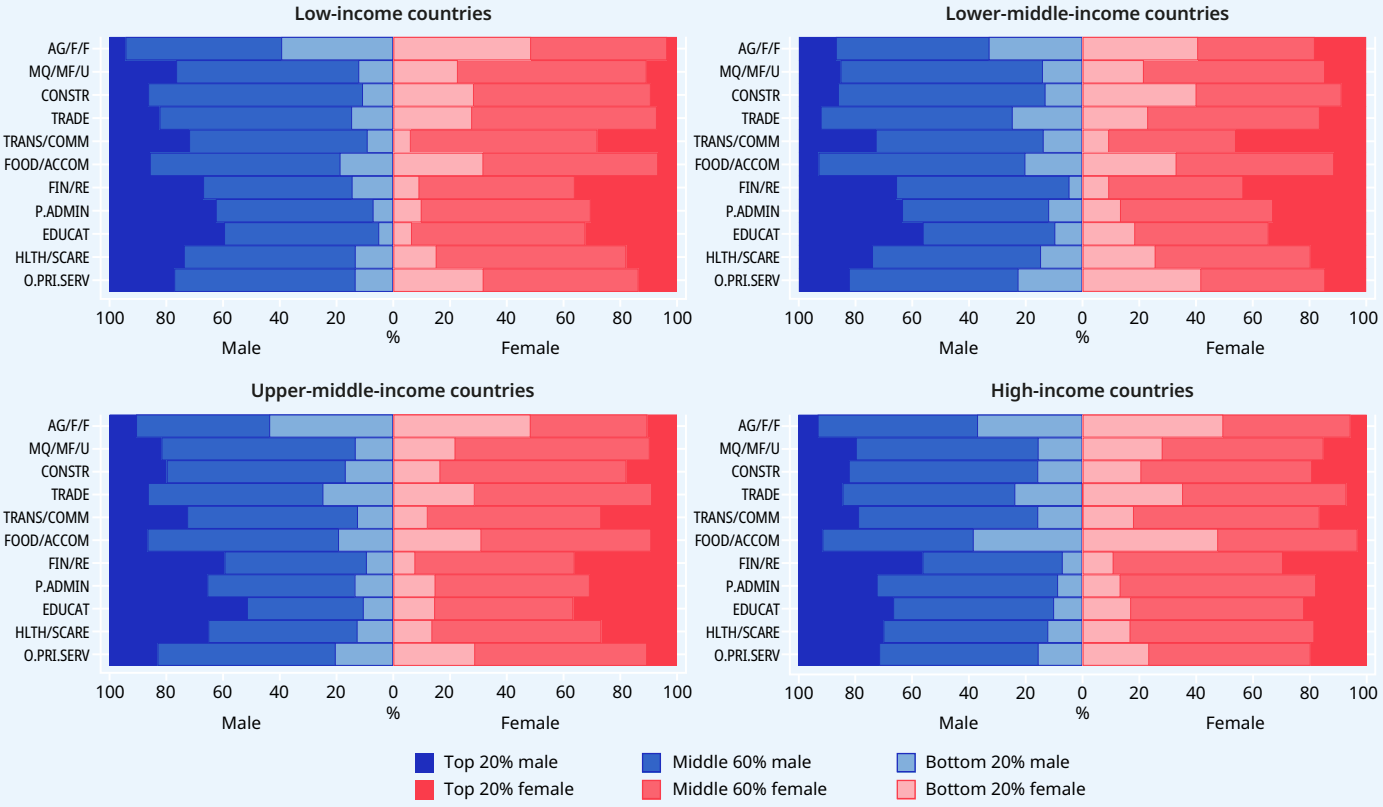
Figure 7.4. Distribution of top, middle and bottom earners by education, sex and country income group, as per the 2021 hourly wage distribution (percentage)



Note: See note appended to figure 7.3 for details on how the statistics are calculated.

Source: ILO estimates based on national survey data from 82 countries. See Appendix I for the sources of data and year of collection. The figures displayed in the charts were obtained using data from the most recent available survey (T1 in Appendix I).

Figure 7.5. Distribution of top, middle and bottom earners by economic activity, sex and country income group, as per the 2021 hourly wage distribution (percentage)

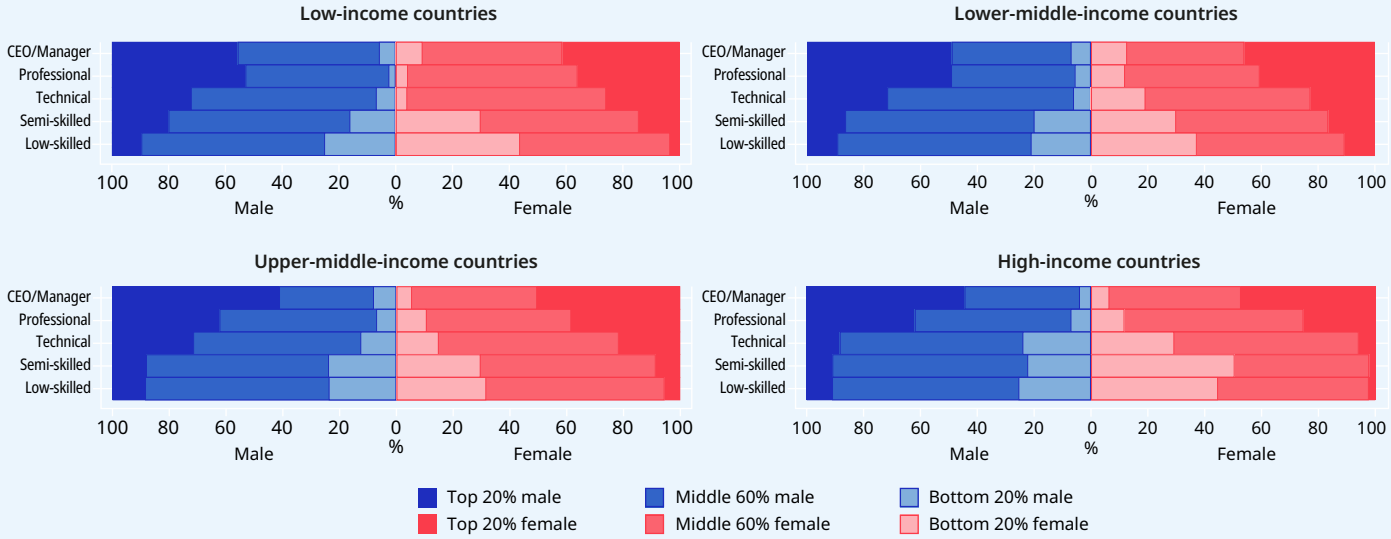


AG/F/F = agriculture, forestry and fishing; MQ/MF/U = mining and quarrying, manufacturing and utilities; CONSTR = construction; TRADE = retail and wholesale trade; TRANS/COMM = transport and communications; FOOD/ACCOM = hotel and restaurant services; FIN/RE = financial services and real estate services; P.ADMIN = public administration; EDUCAT = educational services; HLTH/SCARE = healthcare and social services; O.PRI.SERV = other private sector service providers.

Note: See note appended to figure 7.3 for details on how the statistics are calculated.

Source: ILO estimates based on national survey data from 82 countries. See Appendix I for the sources of data and year of collection. The figures displayed in the charts were obtained using data from the most recent available survey (T1 in Appendix I).

Figure 7.6. Distribution of top, middle and bottom earners by occupation level, sex and country income group, as per the 2021 hourly wage distribution (percentage)



Note: See note in figure 7.3 for details on how the statistics are calculated.

Source: ILO estimates based on national survey data from 82 countries. See Appendix I for the sources of data and year of collection. The figures displayed in the charts were obtained using data from the most recent available survey (T1 in Appendix I).

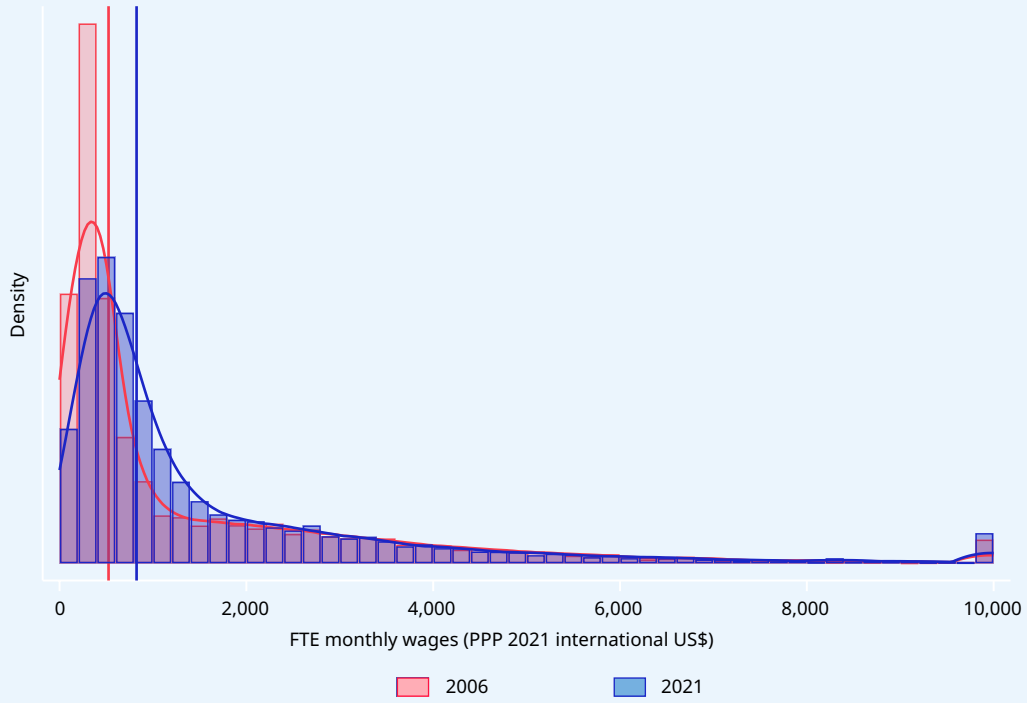
7.3. The change in the global wage distribution

The present section investigates how the global wage distribution changed between 2006 and 2021. The data indicate that real wages increased, on average, since the beginning of the century and that wage inequality also decreased at the global level. Moreover, there were important movements in the location of countries within the global wage distribution, the most evident being China, which moved from the low end of the distribution towards the middle.

Figure 7.7 depicts the global wage distribution constructed for the year 2006 (T0, or time 0) compared, in real PPP terms, to the global wage distribution constructed for the year 2021 (T1, or time 1). The wage distribution for T1 in figure 7.7 closely resembles the distribution seen in figure 7.1, but it is not identical as it excludes the ten countries that did not have T0 data available.[44] Comparing the two years shows that the global wage distribution in 2021 has moved to the right compared to the global wage distribution in 2006. The probability of finding workers in the lower bins has declined significantly between the two periods, which can be seen when comparing the height of the red bars (2006) for each of the lower two bins to the blue bars (2021) in the same locations. At the same time, the height of the blue bars (2021) in the third through tenth bins have increased compared to the red ones (2006). Higher purchasing power of wages in the most recent year is also confirmed by the higher median in 2021 (US$825 PPP) compared to 2006

44. See section 6.1 and Appendix I for more details on data sources and availability.

Figure 7.7. Comparison of the global wage distribution in 2006 and 2021 using full-time equivalent monthly wages (PPP 2021 international US$)



Note: See box 7.1 for a detailed description of how the global wage distribution was obtained for each year. The vertical lines represent the medians of each distribution, with the red line being the median for 2021 and the blue line being the median for 2006.

Source: ILO estimates based on national survey data from 72 countries. See Appendix I for the sources of data and years of collection. The figures displayed in the charts were obtained using data from the earlier survey (T0 in Appendix I) and the most recent available survey (T1 in Appendix I).

(US$525 PPP). Wage growth in China played a substantial role in determining the movement of the global wage distribution. In 2006 and 2021, Chinese wage workers accounted for 33.2 per cent and 31.8 per cent, respectively, of the population of wage employees in the 72 countries considered, and the estimated average wage of China's wage workers increased from US$484 PPP in 2006 to US$1,104 PPP in 2021.

Table 7.3 reports the mean and median wage by country income group for 2006 and 2021, expressed in 2021 international US$, alongside the percentage change over this period. The figures indicate that wages increased more in upper-middle-income countries, suggesting that wages in these countries are converging towards the wages found in high-income countries, even if the gap still remains substantial. On the other hand, even given the limitation of the small sample (just five countries), wages in low-income countries increased less than in upper-middle- and lower-middle-income countries, suggesting that this income group is losing further ground.

Table 7.3. Mean and median full-time equivalent monthly wage by country income group in 2006 and 2021 (PPP 2021 international US$)

Country income group	Median 2006	Median 2021	Change	Mean 2006	Mean 2021	Change
Global	524.55	824.67	+57%	1 521.57	1 699.82	+12%[1]
Low-income	152.26	165.35	+9%	296.91	277.02	–7%
Lower-middle-income	378.07	447.98	+18%	600.15	630.94	+5%
Upper-middle-income	348.93	724.42	+108%	551.04	1 014.67	+84%
High-income	3 136.80	3 409.09	+9%	3 839.37	4 295.33	+12%

1. This estimate is below that provided in figure 3.1, which reflects a global real wage growth of about 32 per cent between 2006 and 2021. There are several reasons which explain this discrepancy:
   - While the methodology behind the estimate in Part I accounts for missing countries, the estimate provided here does not and hence the two samples are not directly comparable.
   - The methodologies used to weigh countries also differ. While the methodology in Part I considers both the population of wage employees and the productivity levels to determine the weights, the estimate in this section only takes into account the former aspect.
   - While the estimates in Part I are obtained from official records, which normally exclude informal employment, the surveys used in Part II, with few exceptions, include wages of employees in the informal economy. Lower wage growth in the informal economy might contribute to explain the lower estimate in this section.
   - Finally, while the aim was to use data for 2006 and 2021 to construct the global wage distribution at the two points in time, for several countries this was not possible due to surveys not being available for the specific years. For many countries the lag between the surveys is actually shorter and it was assumed that wages grew in line with the national CPI in the period not covered, which implies zero wage growth in this time frame.

Notes: These estimates are derived from the country income group wage distributions. See box 7.1 for a detailed description of how the global wage distribution was obtained. To obtain the country income group distributions, the same fours steps described in box 7.1 were followed, but instead of pooling together all countries, country data were aggregated at the country income group level.

Source: ILO estimates based on national survey data from 72 countries. See Appendix I for the sources of data and years of collection.

To better understand the changes in the global wage distribution between 2006 and 2021, figure 7.8 reproduces a graph similar to the so-called "elephant curve" (Lakner and Malinovic 2013; see box 7.3) using the two distributions presented in figure 7.7. In both years, hourly wages are expressed in PPP 2021 international US$, which makes the two distributions comparable at any given percentile.

To generate figure 7.8, each distribution is divided into 21 groups: 19 groups that contain the bottom 95 per cent of the global population of wage employees (that is, 5 per cent in each group), plus two additional groups at the top end of the distribution, with one covering the 96th to 99th percentiles and one covering the 100th percentile. Figure 7.8 is the result of comparing, for each of the 21 divisions, the average wage in 2006 to that in 2021. At each percentile, the change in real PPP hourly wages between 2006 and 2021 shows the total change accumulated during the 15-year interval – and not the annualized change as was displayed in previous figures.

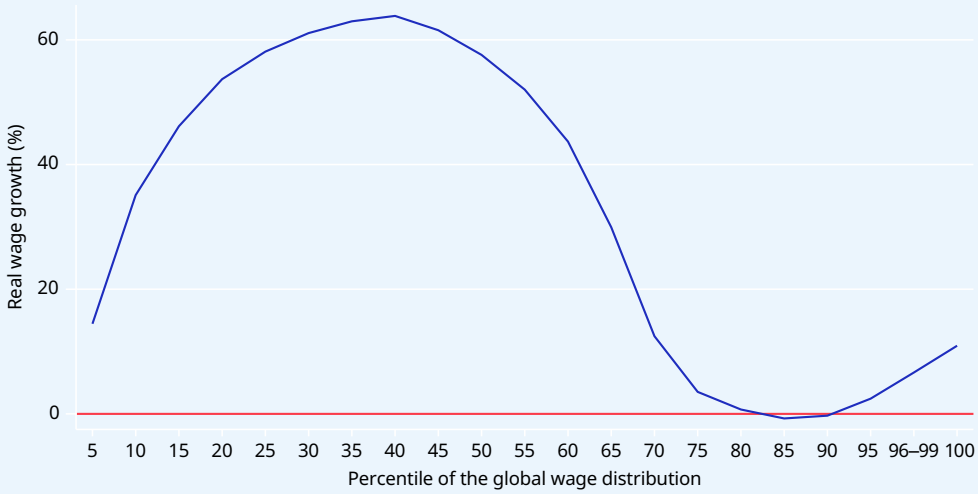
The resulting curve in figure 7.8 resembles that obtained by Lakner and Milanovic (2013) by using household income data to explore changes in household income inequality (see box 7.2). Yet, despite this similarity, figure 7.8 shows important differences when compared to the "Lakner-Milanovic graph". First, except for the 85th and 90th percentiles, real wage growth is positive between 2006 and 2021 at all other percentiles across the global wage distribution. In contrast to Lakner and Milanovic, who found real income growth of 60 per cent at the top centile of the household's income distribution, figure 7.8 shows

Box 7.2. The "elephant curve"

The "elephant curve" is a graph that was first devised by Christoph Lakner and Branko Milanovic in 2013 and published in 2016, and it illustrates the uneven growth experienced by different income groups between 1988 and 2008. The main message conveyed by their elephant curve chart was that individuals in the lowest 5 per cent of the global income distribution together with individuals located between the eighth and ninth decile experienced the lowest relative increase in their income over that period. This evidence is explained by movements of countries within the global income distribution. In particular, the portion of the curve comprising the elephant's hump-shaped back represents the rise of China, where millions of families have seen improvements in their living standards. At the two extremes of the curve, the tail and trunk of the elephant indicated that the income of the poorest individuals progressed only modestly and well below the global average between 1988 and 2006, while the income of the super-rich saw strong acceleration.

that real wage growth at the top centile is positive but at a much lower rate of about 10 per cent. In figure 7.8, real (wage) growth at the top centile is also positive, but at a much lower rate (about 10 per cent) compared to growth values observed in the middle of the wage distribution (at around 60 per cent). Similarly, whereas the Lakner-Milanovic graph shows a household income growth rate close to zero among households at the bottom fifth percentile, figure 7.8 shows that wage workers at the bottom fifth percentile have experienced a real wage growth rate of about 15 per cent. Figure 7.8 suggests that, while low-wage workers in the global economy have seen only limited progress in terms of growing wages, the middle class has substantially improved its position. Wage growth was at its highest at around the 40th percentile (reaching approximately 64 per cent growth) and at its lowest at the 85th (reaching approximately –1 per cent growth).

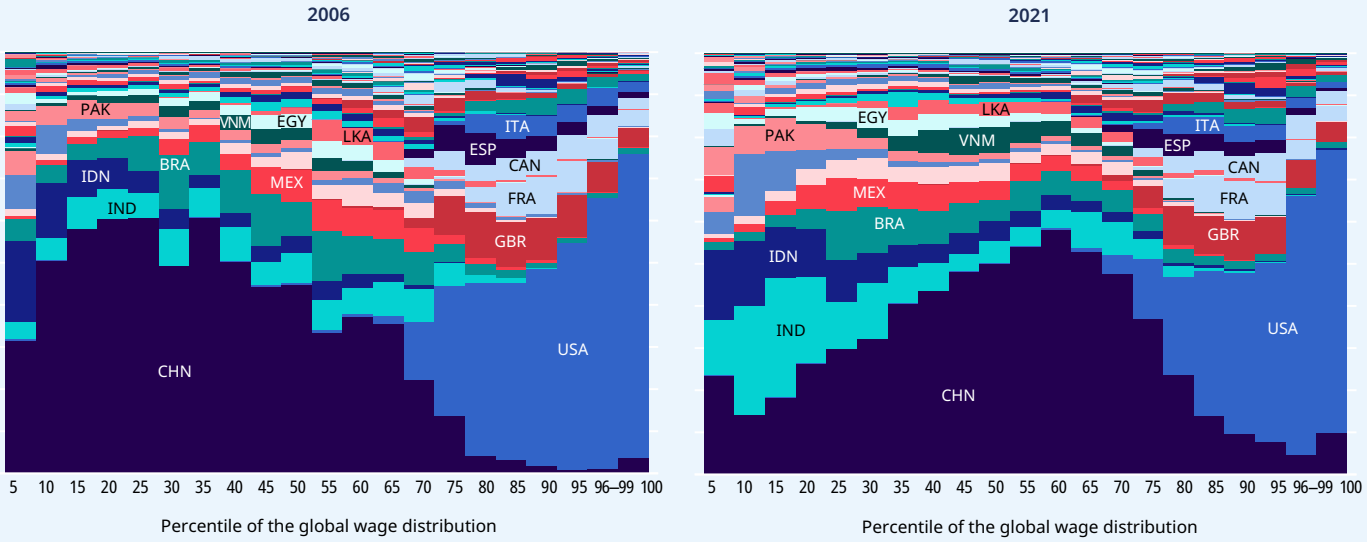
Figure 7.8. Real wage growth by percentile of the global wage distribution between 2006 and 2021 (percentage)



Notes: The wage growth by percentile is calculated starting from the 2006 and 2021 global wage distributions. See box 7.1 for a detailed description of how a global wage distribution is obtained. Percentiles are defined independently along the wage distributions at the two points in time based on hourly wages. The growth rates on the y-axis refer to the total real wage growth in the period 2006–21 and are calculated as the percentage difference between the hourly wage of each percentile at the two points in time.

Source: ILO estimates based on national survey data from 72 countries. See Appendix I for the sources of data and years of collection. The figures displayed in the chart were obtained using data from the earlier survey (T0 in Appendix I) and the most recent available survey (T1 in Appendix I).

Figure 7.9. Geographic distribution of wage workers by country for selected percentiles along the 2006 and 2021 global wage distributions (percentage)



BRA = Brazil; CAN = Canada; CHN = China; EGY = Egypt; ESP = Spain; FRA = France; GBR = United Kingdom; IDN = Indonesia; IND = India; ITA = Italy; LKA = Sri Lanka; MEX = Mexico; PAK = Pakistan; USA = United States; VNM = Viet Nam.

Notes: See box 7.1 for a detailed description of how a global wage distribution is obtained. Percentiles are defined independently along the wage distributions at the two points in time based on hourly wages. The vertical axis reports the cumulative shares of the sample countries within a given percentile. When all countries are stacked on top of each other on the vertical axis, the bar reaches 100 per cent in each decile. The closer the country is to the x-axis the larger its weight in the global wage distribution.

Source: ILO estimates based on national survey data from 72 countries. See Appendix I for the sources of data and years of collection. The figures displayed in the charts were obtained using data from the earlier survey (T0 in Appendix I) and the most recent available survey (T1 in Appendix I).

Figure 7.9 illustrates the position of each country's wage employees across the global wage distribution, distinguishing between 2006 and 2021. Comparing the two panels in the figure can help draw conclusions on the movement of a country over the period and within the global wage distribution. It can also help to analyse the change in the size of its wage workers' population over time: a large wage worker population in a given country means that wage workers weigh more in each panel, making changes in share and location between 2006 and 2021 clearer. In both years, the top end of the global wage distribution was dominated by high-income countries, with the United States taking much of the space. Likewise, in both years, the area in the bottom half of the wage distribution was dominated by low- and middle-income countries. Comparing the two periods, it is interesting, however, to see a very clear move of China towards the centre of the wage distribution. Similarly, a significant fraction of wage workers in Viet Nam have shifted towards the middle of the wage distribution.

Table 7.4 reports the change seen between 2006 and 2021 in inequality indicators measured for the global wage distribution and the country income group distributions. Looking at the global wage distribution first, we can observe that wage inequality decreased overall. Indeed, the changes in the Palma ratio and in the D9/D1 ratio are both negative. However, this was accompanied by an increase in wage inequality at the lower half of the wage distribution, as illustrated by the 11-per-cent increase in the D5/D1 ratio. Together with the findings of figure 7.8, this means that the median wage has increased

by more than the increase in the wage at the threshold value of the bottom decile. Among country income groups, inequality measures generally decreased in the low-income, lower-middle-income and high-income countries, with the exception of the upper half of the wage distribution in the group of high-income countries (D9/D5 ratio). In the upper-middle-income countries, however, the overall level of wage inequality, as measured by the D9/D1 ratio, increased, driven by an increase in wage inequality in the lower half of the wage distribution (as per the D5/D1 ratio).

Before closing this section, it is important to highlight that figures 7.8 and 7.9 are shaped by two components: the relative movement of wages between countries and changes in the distribution of real wages within countries. For instance, the high growth rate observed between the 15th and 60th percentiles of the global wage distribution (figure 7.8) is a reflection of increases in real wages in China between 2006 and 2021, considering that China accounts for a large share of wage workers between the 15th and 60th percentile in the global distribution. On the other hand, the more modest (and sometimes negative) growth in real wages observed from the 75th percentile onwards is due to real wage growth within high-income countries, which are located at the higher end of the global wage distribution.

Table 7.4. Total change between 2006 and 2021 in wage inequality measures computed along the global wage distribution and the wage distributions by country income group (based on hourly wages) (percentage)

Country income group	Change in Palma ratio	Change in D8/D2 ratio	Change in D9/D1 ratio	Change in D9/D5 ratio	Change in D5/D1 ratio
Global	–31%	–36%	–28%	–35%	+11%
Low-income	–35%	–25%	–39%	–17%	–26%
Lower-middle-income	–24%	–14%	–20%	–15%	–6%
Upper-middle-income	–12%	+0%	+3%	–12%	+16%
High-income	–2%	–4%	–3%	+6%	–9%

Note: Changes are obtained by comparing inequality measures computed along the 2006 and 2021 global and country income group wage distributions. See box 7.1 for a detailed description of how global wage distributions are obtained. The percentage changes represent the total change over the period considered.

Source: ILO estimates based on national survey data from 72 countries. See Appendix I for the sources of data and years of collection. The figures displayed in the table were obtained using data from the earlier survey (T0 in Appendix I) and the most recent available survey (T1 in Appendix I).

Labour income inequality; the relationship between wages and the earnings of non-wage workers

8.1. The labour income of non-wage workers

Although for many households a large fraction of their income comes from wage earnings, the latest figures[45] show that globally about one in every two workers is defined as a non-wage worker and classified either as an employer, an own-account worker, a contributing family worker or a worker associated with a cooperative.[46] The estimates presented in the previous sections do not consider the

45. In this introduction, the employment trends are drawn from ILO 2024b.

46. The International Classification of Status in Employment and Status at Work (ICSE and ICSAW) have evolved over the years. For more detailed information, see: https://ilostat.ilo.org/methods/concepts-and-definitions/classification-status-at-work/.

fact that, in most low- and middle-income countries, the majority of workers are non-wage workers. For example, in sub-Saharan Africa and Southern Asia, non-wage workers accounted for 78.2 and 71.5 per cent of all workers, respectively, in 2022 – both rather high shares when compared to, for example, Northern America (7.1 per cent) or Northern, Southern and Western Europe (14.9 per cent). This means that in most countries and regions of the world, analysing wage inequality provides a limited picture of how the labour market shapes income inequality in the population. The objective of this section is to go beyond wages to analyse **labour income inequality**, that is, inequality measured in consideration of the earnings of all workers, irrespective of their status in employment.

At this point it is important to highlight that any analysis of labour income presents important data challenges (see box 8.1), including the fact that in many high-income countries, where most workers are wage workers, regular labour force surveys do not collect earnings information from non-wage workers. In fact, this is the case for the majority of the datasets from high-income countries used in sections 5 to 7 of this report.[47]

The data limitations from high-income countries forced us to exclude this country income group from the analysis of labour income inequality, but the fact is that such an analysis is far more policy relevant in countries where the majority of workers are non-wage workers, that is, in low- and middle-income countries. However, of the 52 low- or middle-income countries for which data were available, only 36 provided recent (early 2020s) information on the earnings of non-wage earners[48]. Clearly, using only 36 countries to construct a "global" or "regional" labour income distributions – analogous to those presented in section 7 – would result in estimates that are neither "globally" nor "regionally" representative, and such distributions certainly could not be compared to the global or regional wage distributions showcased in section 7.

It is for this reason that section 8 targets two alternative – but equally policy relevant – empirical goals. The first is to analyse how non-wage labour earnings, relative to wage earnings, shape labour income inequality, using the latest available year for each of the 36 countries with available data. The second objective is to estimate changes in labour income inequality over the first quarter of the twenty-first century. These latter estimates will be based on 23 of the 36 country datasets mentioned above, as only 23 countries provided data on the earnings of non-wage workers at two different points in time – namely, the early 2000s and the early 2020s.

Before presenting estimates on labour income inequality (section 8.5) and changes in labour income inequality during the first quarter of the twenty-first century (section 8.6), sections 8.2 to 8.4 begin by presenting the

47. In sections 5 to 7, data from high-income countries relied on the Canadian Labour Force Survey (LFS) for Canada, the Encuesta de Caracterización Socio-Económica Nacional (CASEN) for Chile, the Encuesta Continua de Hogares (ECH) for Uruguay, the Census of Population Studies (US-CPS) for the United States and the EU Structure of Earnings Survey (EU-SES) for countries in Europe. Survey data for Chile and Uruguay provide the employment status of all workers (wage and non-wage), as well as earnings for all of them irrespective of status in employment. The Canadian LFS and the US-CPS provide information to identify the status of employment of all workers, but do not provide information on the earnings of non-wage workers. The EU-SES is an employer–employee match dataset, and therefore does not include information from non-wage workers in Europe. Therefore, whereas the distributions presented in section 8.2 rely on the datasets already used in sections 5 to 7 in the case of Canada, Chile, the United Sates and Uruguay, estimates for Europe relay on the EU Social, Income and Living Standard Survey (EU-SILC). The EU-SILC includes information on the earnings of non-wage workers, but is not compatible or comparable with the earnings information from the EU-SES. Considering that beyond section 8.2 the objective is to compare wage versus non-wage inequality, this report did not pursuit the idea of estimating labour income inequality using the EU-SILC for countries in Europe. This leaves only two countries from the high-income group with data from non-wage earners – namely, Chile and Uruguay – which cannot by themselves be representative of that income group. Therefore, sections 8.3 to 8.5 provide empirical evidence exclusively for low- and middle-income countries.

48. A total of **11 upper-middle-income countries** (Argentina, Armenia, Brazil, China, Colombia, Costa Rica, Ecuador, Guatemala, Mexico, Namibia and Peru); **19 lower-middle-income countries** (Angola, Bhutan, the Plurinational State of Bolivia, Cambodia, Cameroon, Congo, Côte d'Ivoire, Egypt, Honduras, India, Kenya, the Lao People's Democratic Republic, Myanmar, Pakistan, the Philippines, Sri Lanka, Tajikistan, Timor-Leste and Viet Nam); and **6 low-income countries** (Burkina Faso, the Democratic Republic of the Congo, the Gambia, Madagascar, Malawi and Rwanda).

Box 8.1. Challenges related to studying labour income using survey data

In practice, measuring labour income can be challenging because of data limitations. To start with, the number of countries whose surveys include the collection of earnings information from non-wage workers is restricted – with this limitation having a particularly high incidence among high-income countries, where non-wage workers are a minority. At the same time, it must be acknowledged that when a survey provides data on the labour incomes of non-wage workers, these data are only an approximation. The labour income for non-wage workers is measured by their "take-home pay", a concept that does not account for the fact that non-wage workers accrue incomes through both labour and (the use of) capital. If the returns from such capital are not discounted from the measured take-home pay, the latter will present an overestimate of the earnings of non-wage workers, which could in fact lead to an underestimation of labour income inequality, other things being equal. Despite being an important shortcoming, it should be noted that, especially in low- and middle-income countries, most non-wage workers are own-account workers in the informal economy and hold little to no capital. In such cases, the data on their labour incomes are likely to closely approximate the true value of their employment-related earnings.

Another reason why the observed employment-related earnings of non-wage workers in survey data are likely to be an overestimation of their actual earnings is that these might be generated by the work of own-account workers with the support of contributing family members, which means that the remuneration that these own-account workers declare in surveys is actually based on the work of multiple individuals – and hence an overestimation of labour income if only one person is considered to have generated such earnings.[1]

Finally, it should be acknowledged that sometimes surveys do not accurately capture labour incomes at the extremes of the distribution, either because of non-response (among top and bottom earners), because the data are censored at the top by those administering the surveys or because of underreporting (particularly among earners at the top). These data shortfalls at the extremes of the distribution can also result in an overestimation or underestimation of labour income inequality.

1. Contributing family workers, who are predominantly women in most countries in the world, are often unpaid or not paid a regular salary despite their classification as "dependent" workers. In almost all labour force surveys (or household surveys with labour market information), contributing family workers are automatically routed out of the sections where other individuals with other employment statuses (wage workers, employers and own-account workers) are asked to declare information on their labour earnings. See section 8.2 for more details on contributing family workers.

distribution of workers by status of employment. Section 8.2 looks at such distribution within and between countries, while sections 8.3 and 8.4 look at how status in employment varies across the labour income distribution – with a specific focus on women versus men (section 8.3) and formal versus informal employment (section 8.4). For the estimates presented in section 8.2, information from high-income countries is readily available,[49] and we take advantage of this to highlight interesting differences in the distribution of workers by status in employment between all country income groups.

8.2. The distribution of workers by status in employment

Using data from 82 countries of the latest available year, figure 8.1 shows the distribution of workers according to status in employment, with country estimates organized by country income group. The first thing to

49. Although labour force surveys in high-income countries do not report on the earnings of non-wage workers, some of these surveys are administered so to capture the working-age population that participate in the labour market – that is, they ask anyone who has been selected to be part of the survey to declare if they are unemployed, wage workers, non-wage workers or non-participants. Thus, although these are surveys that lack information on earnings, they nevertheless provide information on the labour market status of respondents and, in many cases, their labour market characteristics, including for example, their economic sector and occupational category.

notice is that wage employment is indeed low in low- and lower-middle-income countries, higher in upper-middle-income countries and the dominant status in employment among high-income countries. In low-income countries, the dominant categories are own-account workers (ranging from 27 per cent in Madagascar to as high as 72 per cent in Chad) followed by contributing family workers (ranging from 5 per cent in the Gambia to about 40 per cent in Madagascar), with wage employment appearing as a minority among workers in all eight low-income countries for which data were available.

Among lower-middle-income countries, some show low shares of wage employment similar to what is found in low-income countries (for example, in Cameroon, Côte d'Ivoire and India wage workers account for less than 30 per cent of all workers), but others show a relatively large share that aligns more with those observed in high-income countries (such as in Egypt, Eswatini, Honduras and the Philippines, where close to or slightly above 70 per cent of the workforce is in wage employment). Nevertheless, in 14 of the 22 countries in the lower-middle-income group, the share of wage workers amounts to less than 50 per cent of all workers. This implies that in most countries in this income group the dominant categories are own-account workers and contributing family workers. It is particularly striking to see that in the Lao People's Democratic Republic and Zambia about 50 per cent of all workers are contributing family workers.

Among countries in the upper-middle-income group, the share of wage employment is at or above 50 per cent, whereas contributing family workers do not appear to be a significant category of workers.

Finally, high-income countries are characterized by large shares of wage employment (ranging from as low as 71 per cent in Uruguay to about 96 per cent in Luxembourg) and close to 0 per cent of workers classified as contributing family workers. High-income countries in Latin America (Chile and Uruguay) and some European countries (notably Greece and Serbia) show that about 20 per cent of their workers are non-wage workers (mostly own-account workers), and this represents a relatively high share when compared to other high-income countries.

▶ 8.3. The distribution of workers by status in employment status across the labour income distribution

Are workers with different status in employment evenly distributed across the hourly labour income distribution?[50] To answer this question this section starts by looking at how wage workers, employers and own-account workers are distributed across the labour income distribution in low-, lower-middle- and upper-middle-income countries.[51]

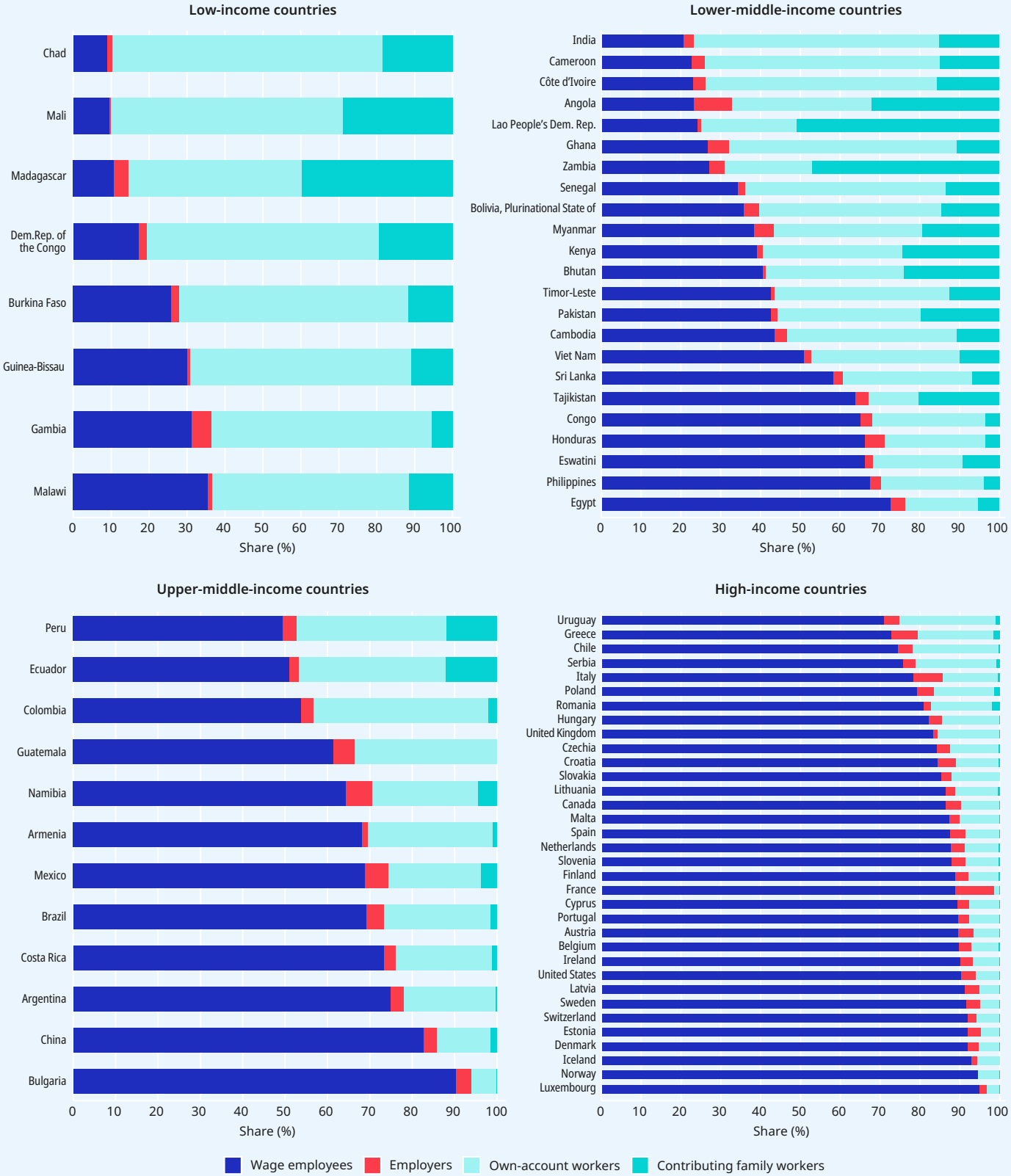
The reason why contributing family workers are excluded from this analysis is because surveys do not usually ask questions on the work-related earnings of contributing family workers, among other reasons (see box 8.1).[52] It has to be acknowledged that excluding this group of workers could result in a sample that under-represents the true share of working women in the population, as women make up the vast majority of contributing family

50. Throughout section 8, all estimates that refer to the labour income distribution are based on ranking workers' wages based on their hourly earnings.

51. As discussed in section 8.1, lack of appropriate data on the earnings of non-wage workers for high-income countries means that this income group has to be excluded from the analysis for all remaining parts of section 8.

52. Most surveys that identify contributing family workers as a status in employment are designed so that the enumerator stops asking further questions to the person concerned. Thus, although according to ILO's definition these are "dependent workers" (see ILO 2018a), earnings information from contributing family workers is mostly missing from surveys.

Figure 8.1. Distribution of workers by status in employment, selected countries, latest available year (percentage)



Note: The countries in each income group are sorted from lowest to highest share of wage employees.

Source: ILO estimates based on national survey data. See Appendix I for the sources of data and year of collection. The figures displayed in the charts were obtained using data from the most recent available survey (T1, or time 1, in Appendix I).

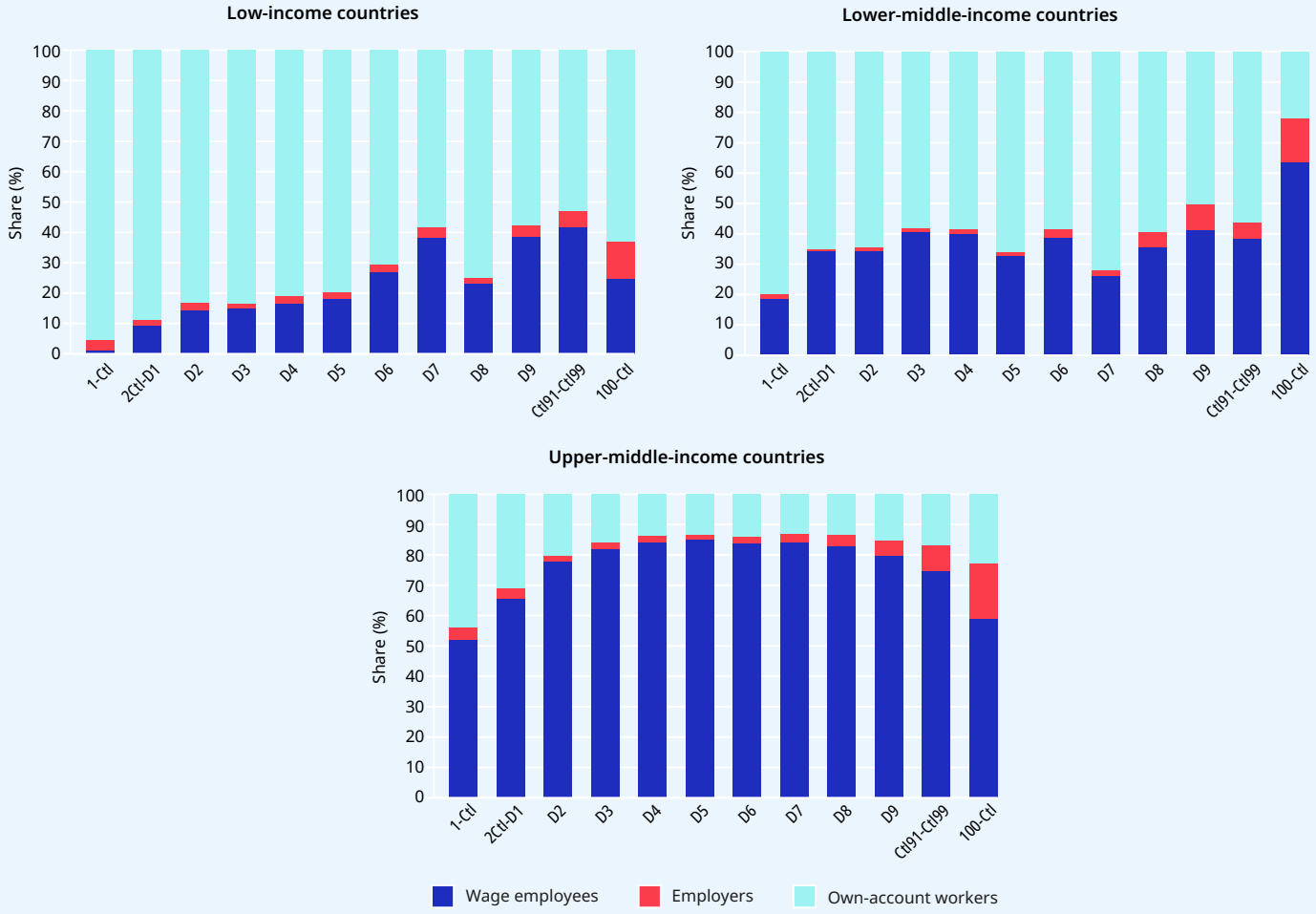
workers in most countries. This under-representation of women in our estimates – relative to their true representation among workers in the population – is one of the reasons why labour income inequality may be underestimated. The fact is that contributing family workers are often not paid on a regular basis, but instead they may receive irregular payments in cash and kind through family or intrahousehold transfers. If these irregular earnings were in fact observed in the data, it is very likely that these earnings would locate these workers at the lower end of the labour income distribution. Likewise, as was highlighted in box 8.1, contributing family workers are classified as "dependent workers"[53] because they are part of a family unit working jointly with others who are more often than not classified as own-account workers. If some fraction of the earnings declared in surveys by own-account workers were to be attributed to contributing family workers identified in the same family (or household), the earnings for many of these own-account workers would in fact be lower than what is effectively observed in the data, thus placing them at a lower level of the income scale. This is yet another reason why labour income inequality may be underestimated in general, and this may well be reflected in the related estimates that follow in section 8. We acknowledge this potential bias, which may be particularly relevant for countries with large shares of contributing family workers (see figure 8.1).

Figure 8.2 shows the distribution of the different statuses in employment at selected percentiles across the hourly labour earning distribution. For each bar, the distribution of the different statuses in employment is obtained as the weighted average of the shares in the countries belonging to a given country income group (see figure 8.1). Among low-income countries, the chart suggests – albeit with some nuance – that when moving from lower to higher hourly earnings, the share of own-account workers declines relative to the share of wage workers. For example, own-account workers make up 95 per cent of the bottom centile (lowest 1 per cent) and up to 89 per cent of workers within the second to tenth centiles, but account for 52 per cent of workers within the 91st to 99th centiles and 62 per cent of workers in the top centile. The above-mentioned nuance refers to the slight increase in the share of own-account workers in the eighth decile and yet again in the top centile. In both cases the share of own-account workers is higher than at other deciles located at the top half of the labour income distribution. A small share of own-account workers at higher locations of the labour income distribution implies a greater share of wage workers at higher earnings levels. The larger share of wage workers at the top half of the earnings distribution can in part be explained by the fact that a large fraction of wage workers in low-income countries – the majority of which are in Africa – work in the public sector. Such employment provides these workers with better working conditions and forms of labour protection, including better earnings, when compared to the precarious working conditions faced by own-account workers, who are mostly making a living in the informal economy (ILO 2019). Employers, who on average make up less than 5 per cent of all workers in low-income countries, are mostly located at the top half of the earnings distribution, and are clearly concentrated at the top centile, where they make up 12 per cent of all workers.

Among lower-middle-income countries, the chart in figure 8.2 does not show a clear gradual increase in the share of wage workers at higher locations along the labour income distribution, and hence there is no clear pattern with respect to the location of own-account workers either. Instead, the share of wage workers is at its lowest in the bottom centile (19 per cent of all workers) and at its highest at the top centile (64 per cent of all workers), but similar shares of wage workers – ranging between 34 and 41 per cent – are seen across all remaining locations along the labour income distribution. As was the case with countries in the low-income group, the share of employers – who, on average, represent less

53. See the 20th International Conference of Labour Statisticians Resolution concerning statistics on work relationships (ILO 2018b) for more detailed information.

Figure 8.2. Distribution of workers by status in employment for selected percentiles along the hourly labour income distribution, by country income group, latest available year
(percentage)



Ctl = centile.

Notes: In addition to showing the distribution for the second through ninth deciles, the figure splits the first decile into two parts: (i) the first centile (bottom 1 per cent) and (ii) the second through tenth centiles. Similarly, the tenth decile is split into two parts to show the distribution for: (i) the 100th centile (top 1 per cent) and the 91st through 99th centiles. High-income countries were excluded from the figure because of the aforementioned lack of earnings data for non-wage workers in these countries. The countries used to estimate the distributions in each of the income regions are those listed in figure 8.1.

Source: ILO estimates based on national survey data. See Appendix I for the sources of data and year of collection. The figures displayed in the charts were obtained using data from the most recent available survey (T1, or time 1, in Appendix I).

than 4 per cent of all workers in lower-middle-income countries – appears to be significantly clustered at the top half of the distribution (particularly from the eighth decile up to the top centile), with employers making up 15 per cent of all workers at the very top of the labour income distribution.

Finally, among upper-middle-income countries, the chart in figure 8.2 shows the representation of wage workers drawing an inverted u-shape across the labour income distribution, with wage workers being least represented at the bottom centile (52 per cent of workers) and the top centile (59 per cent of workers) and accounting for 70 to 85 per

cent of all workers across other locations along the labour income distribution. Thus, with the exception of the top and bottom centiles, own-account workers only represent between 15 and 30 per cent of workers in other locations across the labour income distribution. As was the case with low- and lower-middle-income countries, employers are the smallest category among the statuses of employment (at about 4 per cent of all workers), and like other income groups, there is a significant concentration of employers at the top centile (18 per cent). As explained previously, the figures in this section should be interpreted with caution, notably because the labour incomes of own-account workers are likely to be overestimated.

▶ 8.4. Women, men and workers in the informal economy by status in employment across the labour income distribution

Women, who make up half of the working-age population in all countries, regions and globally, and workers in the informal economy, who represent more than 60 per cent of the world's employed population, are two (often interlinked) groups who frequently face the worst working conditions and often lack opportunities to secure decent employment. This is particularly the case in low- and middle-income countries, where a large fraction of workers are forced to take up work in the informal economy in the absence of other means of livelihood. For example, in most countries in Central America, the share of informal employment ranges between 50 and 74 per cent, while in South America, the percentage ranges between 20 and 50 per cent. In sub-Saharan Africa, where informality is high compared to other regions in the world, informal employment accounts for more than 75 per cent of all employment, and even reaching more than 90 per cent of the workforce in several countries. In low-income countries, 16.8 per cent of women wage workers are in informal employment, with this share being even higher in lower-middle-income countries (24.9 per cent) and upper-middle-income countries (48.1 per cent). In regard to women own-account workers, most of whom are in informal employment, they account for 51.3 per cent of workers in low-income countries, 42.3 per cent in lower-middle-income countries and 24.7 per cent in upper-middle-income countries. In general, women are overrepresented in occupations, sectors and places of work that are highly exposed to informality, such as domestic work and home-based work (ILO 2023). Furthermore, estimates by country income groups show that in low- and middle-income countries, the share of informal employment among domestic workers is 90 per cent, whereas in the case of home-based workers this can range between 63 per cent (Central Asia) and up to 99 per cent (Arab States) (ILO 2018a).

Despite the persistence of labour market gaps between women and men – for example, the global employment gap between women and men remains at around 27 per cent – more and more women are gaining access to education and employment opportunities (ILO 2018c). However, the number of workers in informal employment has increased worldwide, from about 1.7 billion in 2005 to about 2.1 billion in 2024 (about 1 per cent annual growth); although in relation to overall employment growth, the share of informal employment has remained fairly stable at around 60 per cent since 2005 (ILO 2024a).

Considering the importance of policy action to promote women's employment and the formalization of workers in the informal economy, it is of interest to explore how women, on the one hand, and workers in the informal economy, on the other, are distributed by status of employment across the labour income distribution. This evidence can help shed

In all but one of the 18 countries presented in the figure, the share of women in wage employment is lower than the share of men in wage employment.

light on how the position of women within the distribution differs with respect to that of men, and how the position of workers in the informal economy in the distribution differs with respect to those in the formal economy, thus providing evidence on the difference in working conditions faced by these various groups. Figure 8.3 explores this using a selection of countries from each of the three income groups under consideration – low-, lower-middle- and upper-middle-income.

Each row in figure 8.3 presents two charts. For each country, the chart on the left compares the share of women and men by status of employment for selected percentiles across the labour income distribution, while the chart on the right compares the share of formal and informal workers by status of employment. For example, in the Gambia, the shares of women and men workers whose earnings place them in the second decile (D2) of the hourly earnings distribution are such that: women wage workers make up 11.6 per cent of all workers in the decile (men wage workers make up 19 per cent); women employers make up 2.7 per cent of all workers (men employers make up 0.2 per cent); and women own-account workers make up 49.6 per cent of all workers (men own-account workers make up 16.9 per cent).[54]

With respect to the charts that compare the shares of women and men by status in employment across the labour income distribution, one clear pattern arises in all country income groups: in all but one of the 18 countries presented in the figure, the share of women in wage employment is lower than the share of men in wage employment (Congo being the only exception). This can be seen because in all countries – except Congo – and for all percentiles the hight of the bar reflecting the share of women in wage employment is always shorter than the hight of the bar reflecting the share of men in wage employment. This result showcases that, in almost all of these countries (except to some extent Argentina and Brazil), the share of women wage workers is smaller than that of men; the case of Burkina Faso is very illustrative as the share of women wage workers is particularly limited.

For 11 of the 18 countries, the charts show that the share of men in wage employment increases – albeit with some nuance in a few cases – as we move from lower to higher hourly earnings (see, for example, the Plurinational State of Bolivia, Burkina Faso, the Gambia and Namibia). Among women workers, an increase in the share of wage employment as we move from lower to higher hourly earnings is only perceived in three of the 18 countries, namely, the Plurinational State of Bolivia (except in the top centile), Congo (except in the top centile) and Namibia (also excluding the top centile). This illustrates that women frequently do not have access to the same wage employment opportunities as men.

The share of women own-account workers at the lower end of the labour earnings distribution – particularly within the bottom 40 per cent – is higher than that of men own-account workers in 13 of the 18 countries. When look-

54. For each of the charts in figure 8.3, whether these refer to the distribution between women and men or the distribution between formal and informal employment, adding together the same categories would return the distribution of all workers at the top and bottom centiles and intermediary deciles by status in employment. For example, in the case of the Gambia, and continuing with the same example in D2, the share of all wage workers, the share of all own-account workers and the share of all employers in that decile of the population are 30.6 per cent, 66.5 per cent and 2.9 per cent, respectively. By default, for each country, the chart that shows the distribution between women and men and the chart that shows the distribution of formal versus informal employment should reproduce identical shares of status in employment at each of the given locations across the labour income distribution. In essence, the charts in figure 8.3 and those displayed in figure 8.2 provide similar information, but while in figure 8.2 the estimates are based on weighted average between countries that share the same income group, figure 8.3 provide estimates independently for a selection of countries.

ing at employers, the figure shows that (i) in most countries, men dominate this category, and (ii) employers are mostly located at the top percentiles of the hourly earnings distribution. Overall, the evidence suggests that because women are not finding adequate opportunities to work in wage employment or as employers, they tend to make a living as own-account workers – an employment status that is often associated with informal employment.

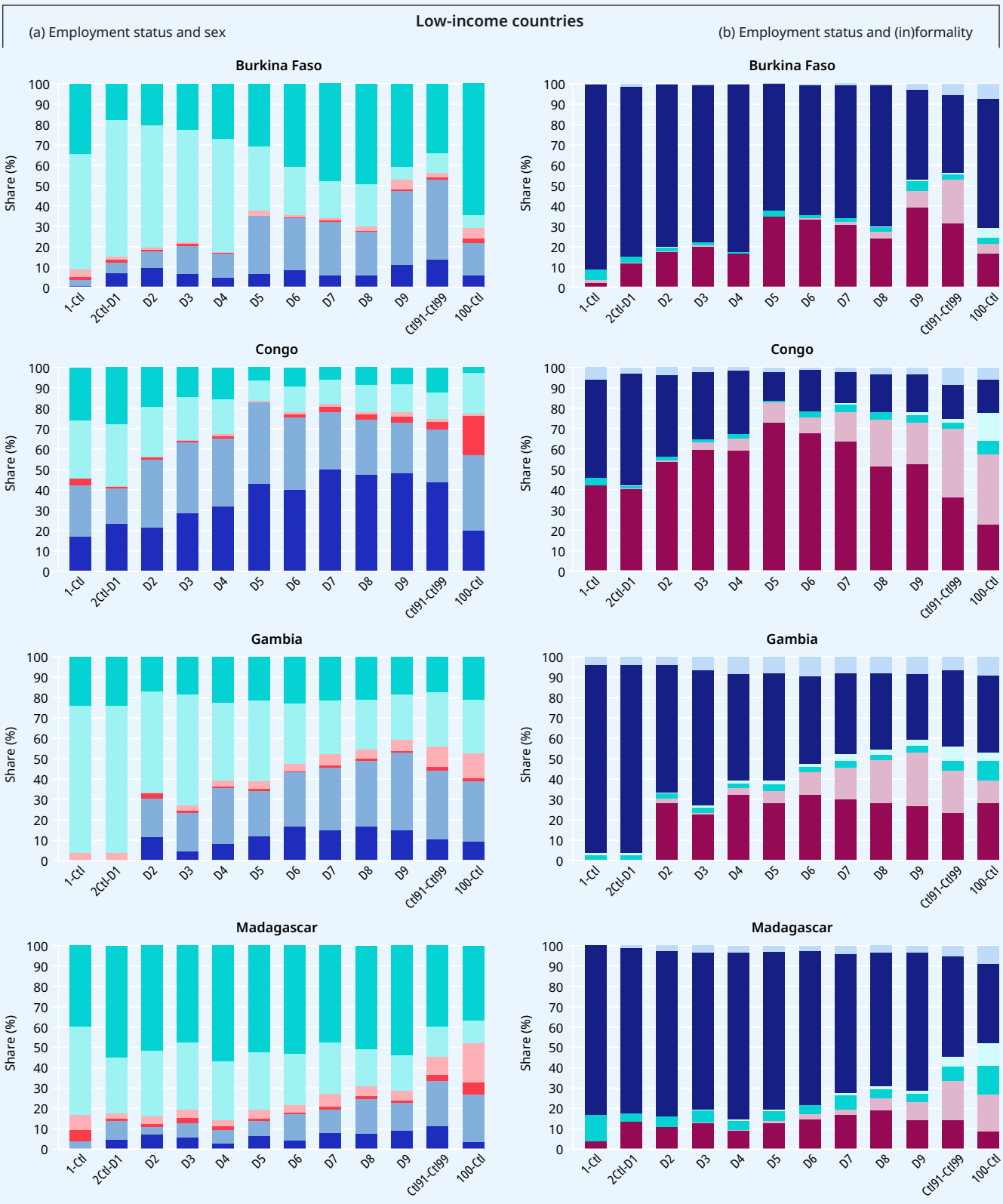
With respect to the charts in figure 8.3 that compare workers in formal and informal employment, formal wage employment is mostly found at the top half of the labour income distribution. Indeed, in 11 of the 18 countries, evidence of formal wage employment is not clearly perceived until reaching the fourth decile – for example, in Burkina Faso, Cambodia, Cameroon and Mali – and in most countries formal wage employment increases as we move from lower to higher earnings levels. In just about all countries (except Argentina), own-account workers are overwhelmingly found to be in informal employment and showcase a larger representation in the lower half of the labour income distribution. In some countries – such as Cambodia, the Gambia, Mali and Namibia – all workers in the bottom decile are informal non-wage workers, with the majority being own-account workers. Employers are mostly located in the top half of the earnings distribution in most countries, with employers having formal status being largely found at the top centile of the distribution – for example, in Brazil, Namibia and Sri Lanka.

Altogether the evidence from these 18 countries suggests that, in low- and middle-income countries, workers in informal employment are largely own-account workers with earnings that fall at the lower end of the labour income distribution, and therefore evidencing that informal employment is clearly associated with poorer working conditions.

To complement the estimates found in figure 8.3, tables 8.1 and 8.2 show various measurements of the hourly earnings gaps between women and men and between workers in formal versus informal employment. Table 8.1 shows that for all three country income groups – low-, lower-middle- and upper-middle-income countries – and for all three measuring strategies – mean raw earnings gap, median raw earnings gap and the factor-weighted mean earnings gap[55] – the earnings gap between women and men increases substantially when non-wage workers are added into the computation, as compared to estimates using only wage workers. Table 8.2 shows that the hourly earnings gap between those in formal employment and those in informal employment also tends to increase once non-wage workers are added into the computation, as compared to estimates using only wage workers (although this is not the case among lower-middle-income countries).

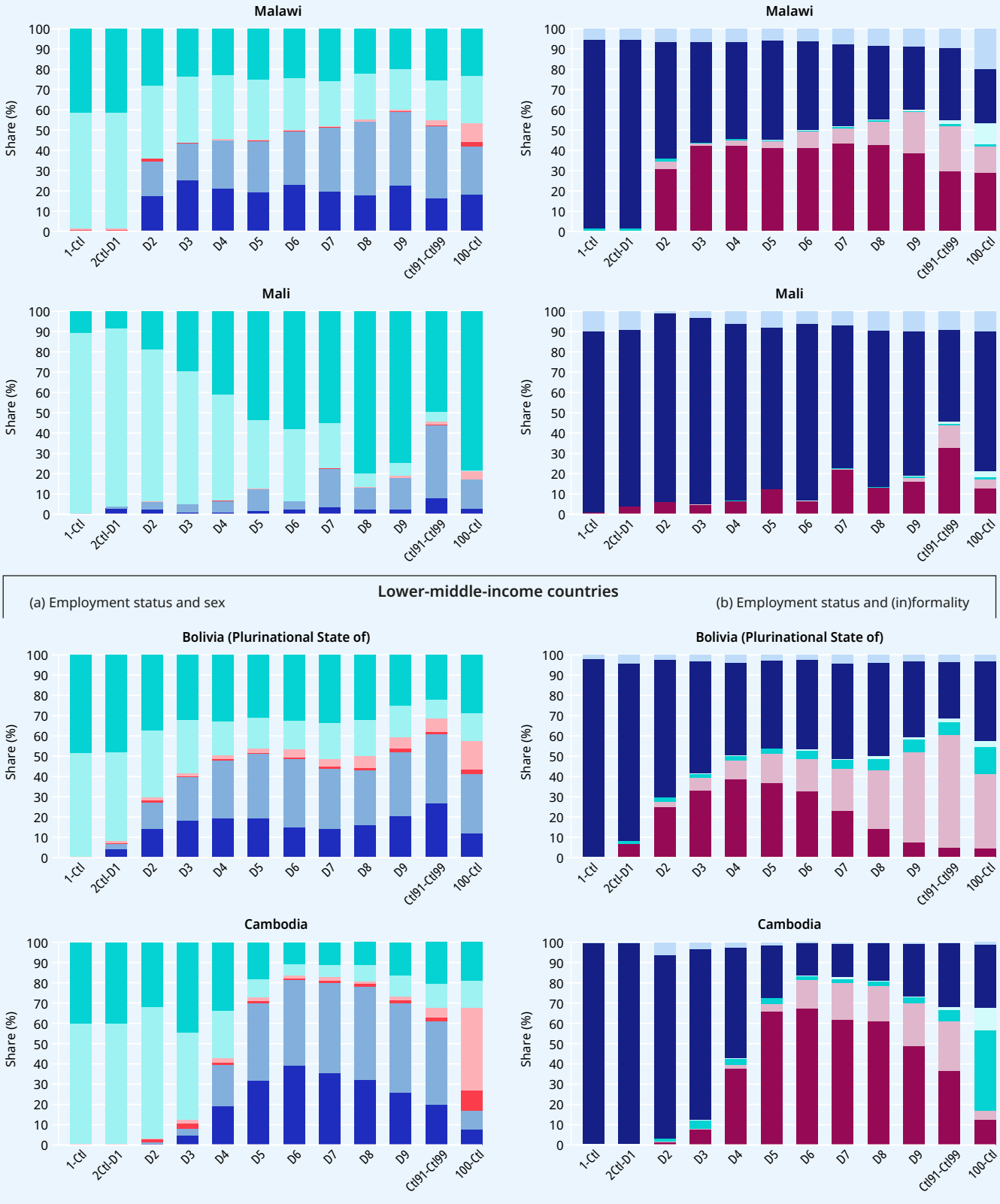
55. See figure 5.3 for a detailed interpretation of the factor-weighted wage gap.

Figure 8.3. Distribution of workers in selected countries by (a) employment status and sex and (b) employment status and formal versus informal employment for selected percentiles along the hourly labour income distribution, latest available year (percentage)



Ctl = centile.

Figure 8.3. *(continued)*

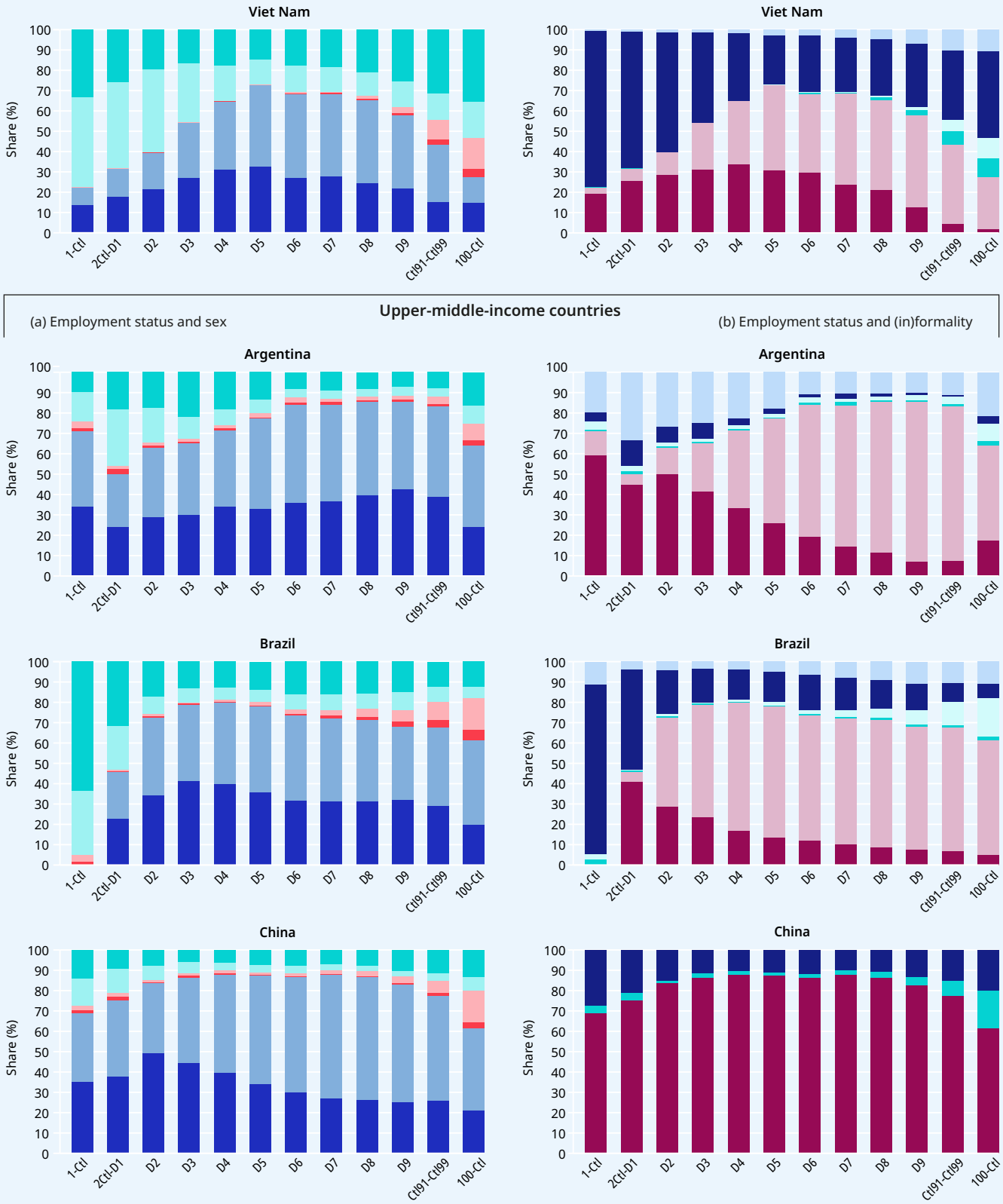


Ctl = centile.

Figure 8.3. *(continued)*

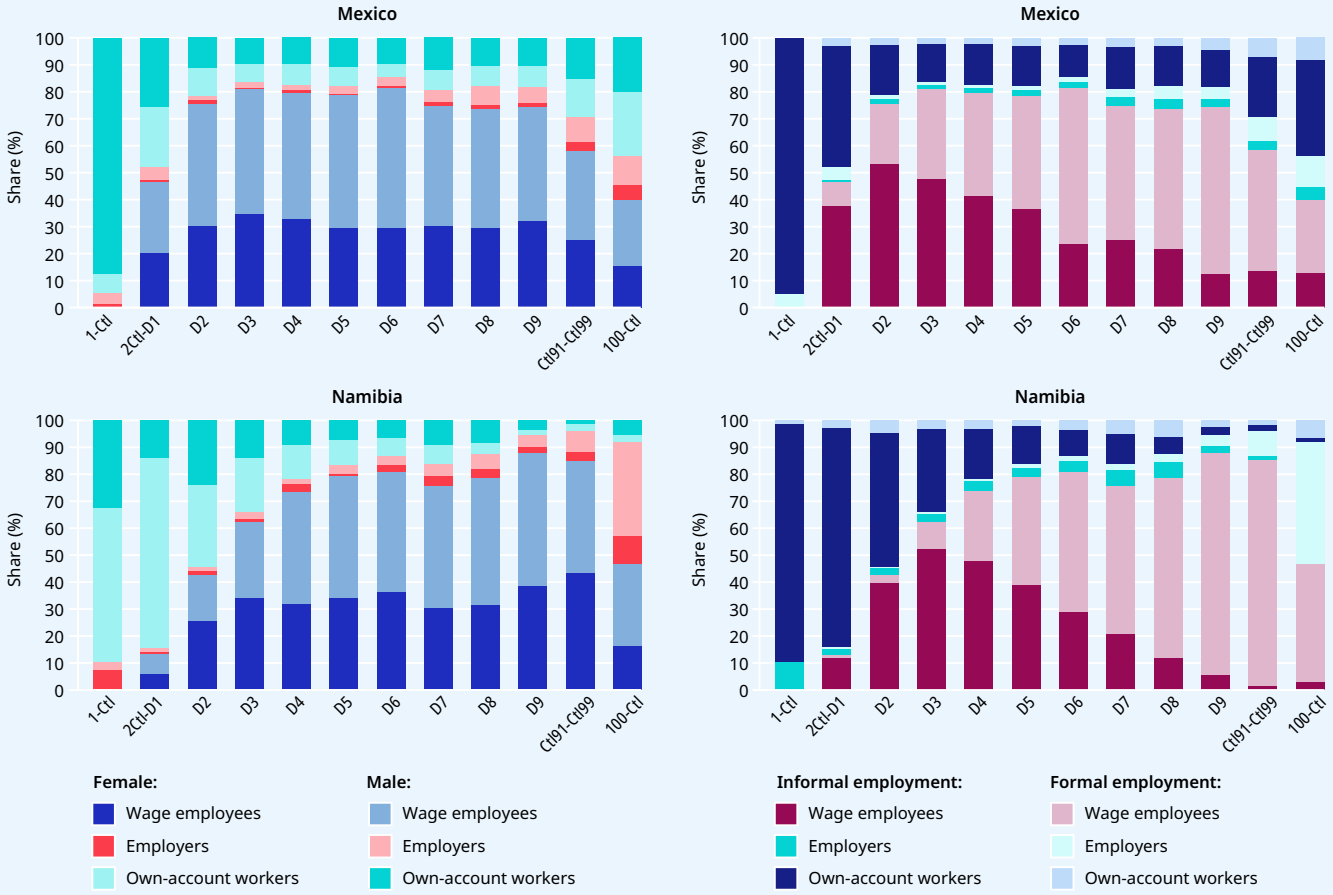
Ctl = centile.

Figure 8.3. *(continued)*



Ctl = centile.

Figure 8.3. *(continued)*



Ctl = centile.

Notes: In addition to showing the distribution for the second through ninth deciles, the figure splits the first decile into two parts: (i) the first centile (bottom 1 per cent) and (ii) the second through tenth centiles. Similarly, the tenth decile is split into two parts to show the distribution for: (i) the 100th centile (top 1 per cent) and the 91st through 99th centiles. High-income countries were excluded from the figure because of the aforementioned lack of earnings data for non-wage workers in these countries.

Source: ILO estimates based national data. See column T1 in Appendix I for the sources of data and year of collection.

Together, these estimates reinforce the conclusion arrived at via the country data shown in figure 8.3, namely, non-wage workers in informal employment – many of whom are women – may find ways to make a living but tend to do so in significantly poorer working conditions than those experienced by wage workers.

Table 8.1. Hourly earnings gap between female and male workers by country income group, latest available year (percentage)

	Low-income group			Lower-middle-income group			Upper-middle-income group		
Type of workers	Mean raw gap	Median raw gap	Mean FW-gap	Mean raw gap	Median raw gap	Mean FW-gap	Mean raw gap	Median raw gap	Mean FW-gap
Wage workers	20.4	13.8	15.2	4.7	13.3	16.3	14.8	19.8	22.2
All workers, irrespective of employment status	37.0	39.1	26.1	26.9	31.5	30.8	15.9	18.6	23.7

FW = factor-weighted.

Notes: The pay gap is represented as the percentage by which the hourly earnings of men surpass the hourly earnings of women. See footnote 33 in section 5.3 for an explanation of the methodology behind the factor-weighted gap. The estimates in figure 5.3 and the estimates in the "wage workers" row in this table differ despite the fact that in both cases the estimates are measuring wage gaps between women and men wage workers. This is because the estimates in figure 5.3 are based on data from 82 countries for which wage data are available, whereas in this table the estimates for the wage workers row are based on 36 countries for which wage and non-wage data are available. This allows for comparing the wage workers row and the "all workers" row in the table, as they are based on the same set of countries.

Source: ILO estimates based on national data from 36 countries for which wage and non-wage data are available.

Table 8.2. Hourly earnings gap between workers in formal employment and workers in informal employment by income group, latest available year (percentage)

	Low-income group			Lower-middle-income group			Upper-middle-income group		
Type of workers	Mean raw gap	Median raw gap	Mean FW-gap	Mean raw gap	Median raw gap	Mean FW-gap	Mean raw gap	Median raw gap	Mean FW-gap
Wage workers	55.6	65.8	28.6	55.4	53.8	35.0	42.4	36.5	29.3
All workers, irrespective of employment status	64.6	69.8	25.2	47.7	45.8	6.1	44.6	40.6	33.0

FW = factor-weighted.

Note: The pay gap is represented as the percentage by which the hourly earnings of men surpass the hourly earnings of women. See also note to table 8.1.

Source: ILO estimates based on national data from 36 countries for which wage and non-wage data are available.

8.5. Labour income inequality in low- and middle-income countries: Where do we stand?

How does labour income inequality compare to wage inequality? Considering the evidence so far – that is, the fact that most non-wage earners are located at the low end of the hourly earnings distribution, and that women and workers in the informal economy are overrepresented among them – one would be inclined to think that, for several of the measures of inequality used throughout the report, the joint distribution of wage and non-wage earnings – that is, the labour income distribution – will display greater dispersion (greater inequality) in comparison to inequality estimates using only wage earnings (as displayed in section 5).

The objective in this section is to estimate labour income inequality, using hourly earnings, independently of the status in employment. This is a more relevant measure of inequality in countries where wage employment is a relatively small share of the workforce and, therefore, measured wage inequality as described in section 5 may not be as pertinent to understanding how the earnings acquired by workers from their labour contribute to household income inequality. The two measures selected to analyse and describe labour income inequality are the share of low-paid workers and the Palma ratio.[56]

Figure 8.4 shows the share of low-paid workers, distinguishing between wage workers and non-wage workers, as well as labour income inequality measured when taking all workers together. The figure showcases 36 countries whose data allow for the construction of a labour income distribution (see section 8.1 for more details). Figure 8.4 allows us to respond to the following question: compared to inequality measures using only wage workers, by how much does the share of low-paid workers increase when non-wage workers are considered in the computation?[57]

The answer is that in all but six[58] of the 36 countries, the share of low-paid workers increases – in some cases substantially – when non-wage workers are added into the computation of labour income inequality. Among low-income countries, where the share of low-paid workers among wage employees is estimated between 16.8 per cent (Rwanda) and 25.9 per cent (Malawi), the addition of non-wage workers increases that range to between 19.2 (Rwanda) and 47.3 per cent (Congo). Among lower-middle-income countries, once

56. For simplicity, this section presents the two measures of inequality as mentioned in the main text. The use of D-ratios to measure labour income inequality using the hourly earnings of all workers has been relegated to Appendix II.

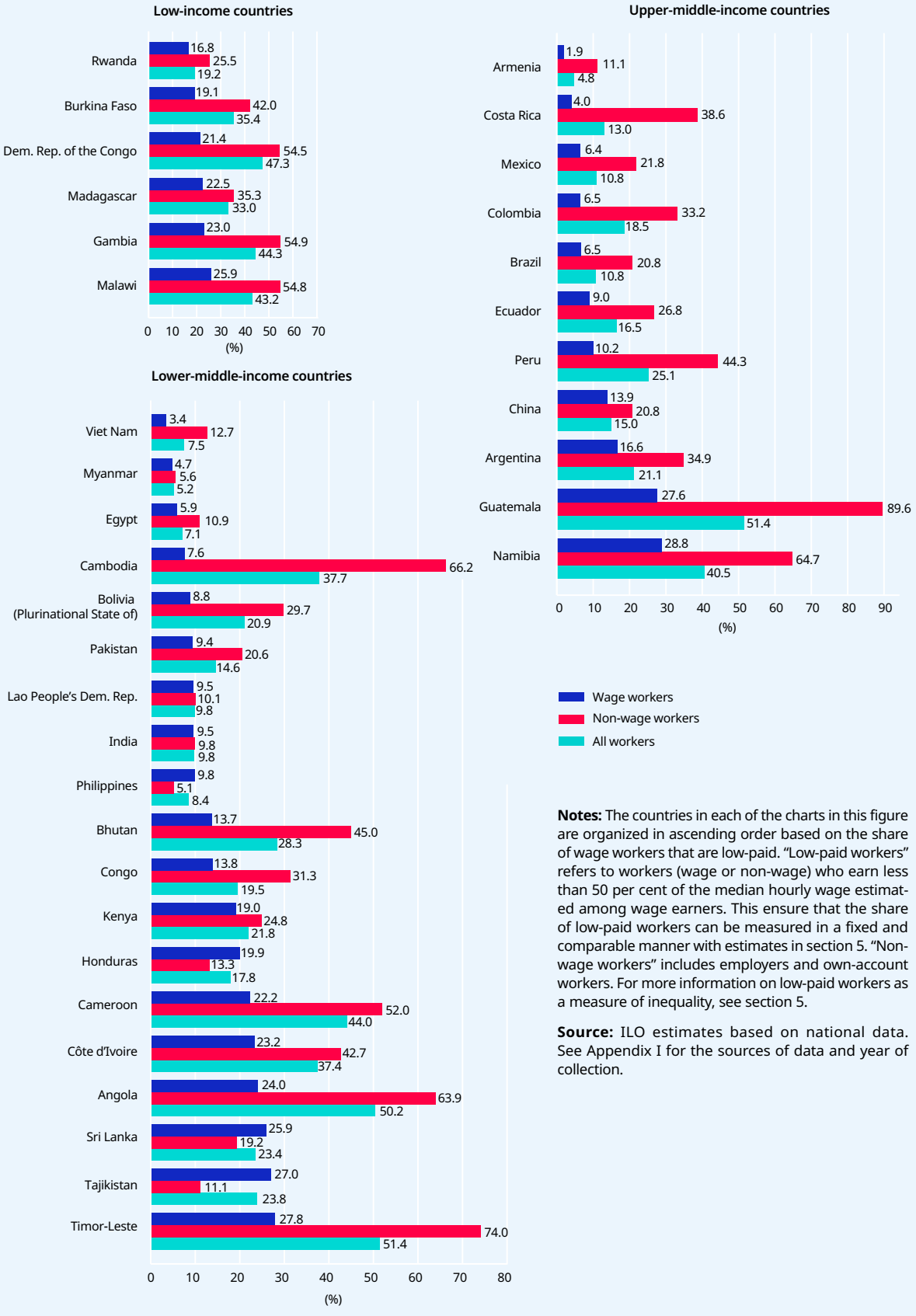
57. The proportion of low-paid workers is estimated with reference to a benchmark, namely, the median value in the distribution. To be more precise, a low-paid worker is one whose (hourly) earnings fall below 50 per cent of the median value in the distribution. When wage and non-wage workers are put together in a single distribution, the median is bound to change when compared to that observed among wage workers only. We could estimate the share of low-paid workers for each of the two groups separately and then take the (weighted) average of the two to come up with a measure of low-paid among all workers, but this would not be the same as "treating all workers as if describing a single labour income distribution", which is a final objective if what we want is to study "by how much does inequality change if we add non-wage workers into the estimation". The solution is to use one single benchmark for the two groups of workers; this can be 50 per cent of the median as estimated using: (a) wage workers only; (b) non-wage workers only; or (c) all workers together. Considering that we want to compare the estimates in figure 5.1 to those obtained when including non-wage workers into the computation of the proportion of low-paid workers in the population of workers, we selected option (a) to construct the benchmark upon which to determine the group of workers classified as low-paid. This thinking and benchmark selection does not have an impact when estimating other measure of inequality (such as, the Palma ratio or the D-rations) because these other measures of inequality do not rely on a particular benchmark that changes with the addition of other workers with a different status in employment.

58. See Appendix III for an analysis of these six countries to show that in all of them non-wage workers draw an earnings profile to the right of the wage profile observed among wage workers. That is, in these six countries wage workers earn, on average, at or below non-wage workers.

non-wage workers are included, the share of low-paid workers ranges between 5.2 per cent (Myanmar) and 51.4 per cent (Timor-Leste), whereas when using wage workers only, the range was narrower, at between 3.4 per cent (Viet Nam) and 27.8 per cent (Timor-Leste). Finally, countries in the upper-middle-income group also show increasing shares of low-paid workers – sometimes substantial increases, for example, in Colombia, Guatemala, Namibia and Peru – when non-wage workers are included in the computation, despite the fact that the share of non-wage workers is relatively small in this country income group when compared to what is seen in low- and lower-middle-income countries. As such, in upper-middle-income countries the share of low-paid workers ranges from 4.8 per cent (Armenia) to 40.5 per cent (Namibia) when including non-wage workers – whereas among wage workers only the range was between 1.9 per cent (Armenia) to 28.8 per cent (also Namibia).

When labour income inequality is measured using the Palma ratio (figure 8.5) the conclusions are qualitatively similar to those resulting from studying the share of low-paid workers: compared to wage inequality levels, adding non-wage workers increases labour income inequality in almost all countries and across all country income groups. In fact, in all but four of the 36 countries under consideration – Egypt, India, the Philippines and Tajikistan – the Palma ratio increases when non-wage workers are included. For example, the Palma ratio for wage workers in Guatemala is 7.3, which means that wage workers in the top 10 per cent of the distribution earn 7.3 times as much per hour compared to wage workers in the bottom 40 per cent. But if the hourly earnings of non-wage workers are included in the computation, Guatemala's Palma ratio jumps to 19.1.

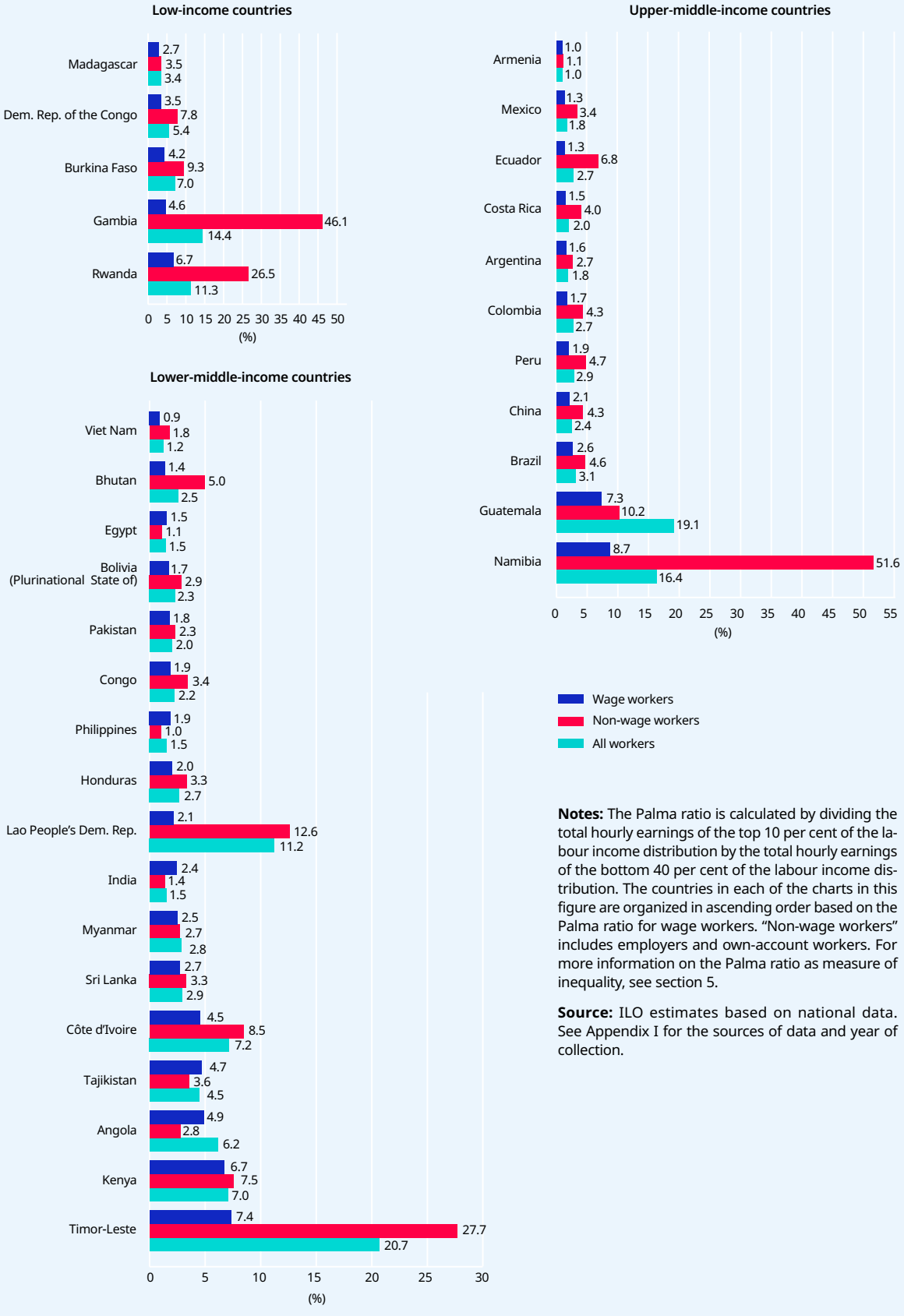
Figure 8.4. Share of low-paid workers among wage workers, non-wage workers and all workers, in selected countries, latest available years (percentage)



Notes: The countries in each of the charts in this figure are organized in ascending order based on the share of wage workers that are low-paid. "Low-paid workers" refers to workers (wage or non-wage) who earn less than 50 per cent of the median hourly wage estimated among wage earners. This ensure that the share of low-paid workers can be measured in a fixed and comparable manner with estimates in section 5. "Non-wage workers" includes employers and own-account workers. For more information on low-paid workers as a measure of inequality, see section 5.

Source: ILO estimates based on national data. See Appendix I for the sources of data and year of collection.

Figure 8.5. Palma ratio for wage workers, non-wage workers and all workers, in selected countries, latest available year



Notes: The Palma ratio is calculated by dividing the total hourly earnings of the top 10 per cent of the labour income distribution by the total hourly earnings of the bottom 40 per cent of the labour income distribution. The countries in each of the charts in this figure are organized in ascending order based on the Palma ratio for wage workers. "Non-wage workers" includes employers and own-account workers. For more information on the Palma ratio as measure of inequality, see section 5.

Source: ILO estimates based on national data. See Appendix I for the sources of data and year of collection.

8.6. Changes in labour income inequality across the twenty-first century in low- and middle-income countries

Figures 8.6 and 8.7 show changes in labour income inequality between 2006 and 2021 (or the closest available years) using the share of low-paid workers and the Palma ratio, respectively. The numbers in these figures are derived from 23 countries that provided comparable survey data for both the early 2000s and the early 2020s.[59]

Figure 8.6 shows that in the lower-middle- and upper-middle-income groups, most countries – except Cambodia, China and Guatemala – experienced a decline in the share of low-paid workers in the working population. For example, in the case of India, the shares of low-paid wage workers and low-paid non-wage workers declined at an average annual rate of 6.3 and 12.7 per cent, respectively, between 2008 and 2018, with the share of the two combined declining at an average rate of 11.1 per cent per annum over the 10-year period. A number of upper-middle-income countries – such as, Armenia, Costa Rica and Peru – saw much sharper declines in the share of low-paid workers among wage workers than was seen among non-wage workers. In lower-middle-income countries the picture is somewhat mixed, although in some countries (Angola, Honduras and Zambia) the decline in low-paid workers among non-wage workers was substantial and seems to have driven the overall decline of low-paid workers in the overall working population.

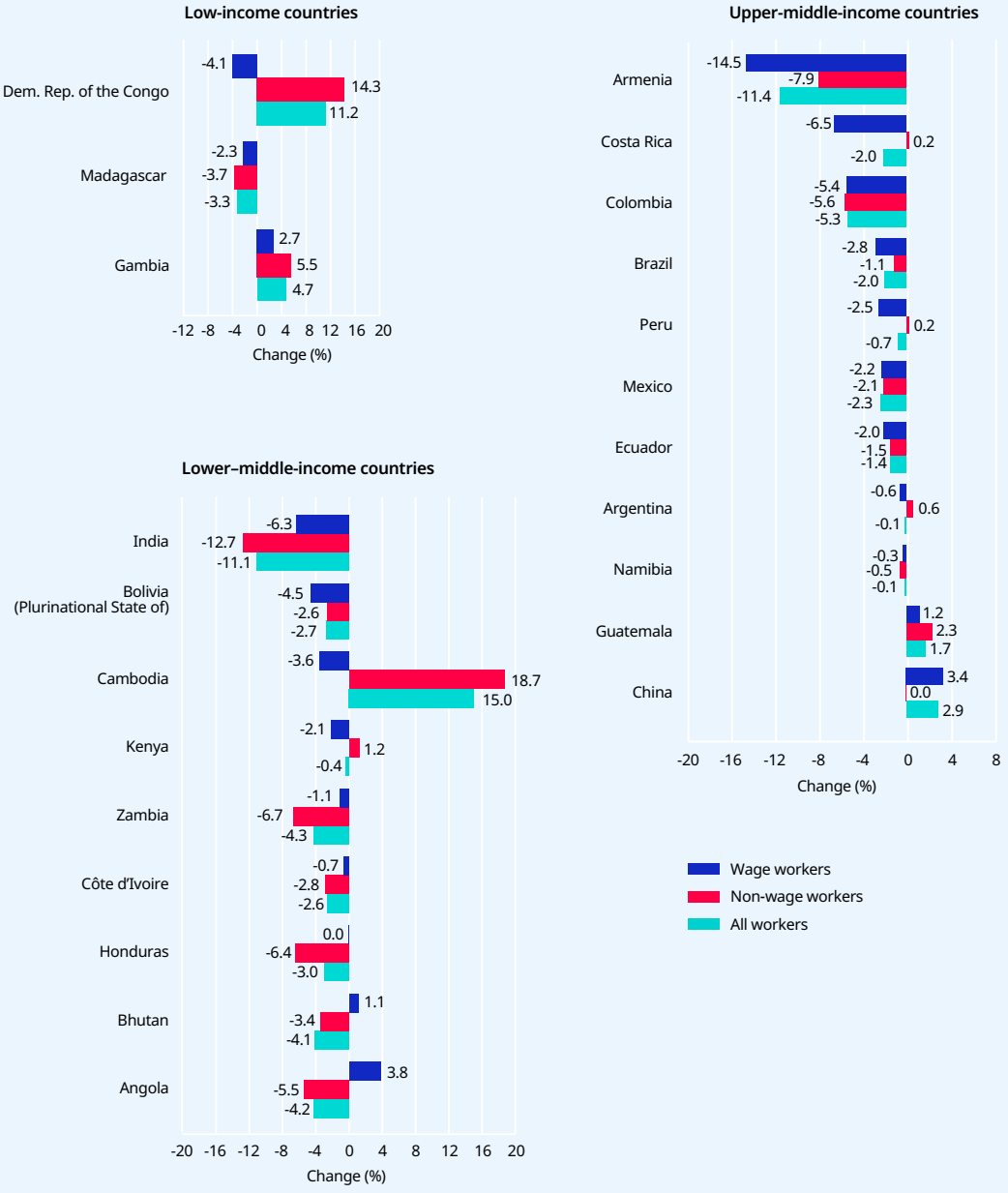
With respect to the low-income group, it is a challenge to make any inferences when data were available for only three countries. On an individual basis the estimates show that in Madagascar the share of low-paid workers has declined, whereas in the Democratic Republic of the Congo and the Gambia the share of low-paid workers has increased.

Finally, figure 8.7 shows the growth rate in the Palma ratio for the same 23 countries showcased in figure 8.6. As noted above, the Palma ratio is calculated by dividing the total hourly earnings of the top 10 per cent of the labour income distribution by the total hourly earnings of the bottom 40 per cent of the labour income distribution. In 20 of the 23 countries under consideration, the change in the Palma ratio goes in the same direction as the change in the share of low-paid workers; that is, in countries where the share of low-paid workers has declined, the Palma ratio also declined, and where the share of low-paid workers increased, the Palma ratio also increased. Considering that it is more likely than not that low-paid workers are part of the 40 per cent at the bottom of the labour income distribution, it is reasonable to suggest that the observed change in the share of low-paid workers in some way also drives the observed change in the size of the total wage bill at the top decile relative to that accrued among the bottom 40 per cent of workers in each of the 20 countries where share of low-paid workers and the Palma ratio both followed the same direction.[60] There are three countries where the (overall) change in the share of low-paid workers and change in the Palma ratio do not follow the same direction; these are China, the Democratic Republic of the Congo and Zambia.

59. Of which, **11 are upper-middle-income countries** (Argentina, Armenia, Brazil, China, Colombia, Costa Rica, Ecuador, Guatemala, Mexico, Namibia and Peru); **9 are lower-middle-income countries** (Angola, Bhutan, the Plurinational State of Bolivia, Cambodia, Côte d'Ivoire, Honduras, India, Kenya and Zambia); and **3 are low-income countries** (the Democratic Republic of the Congo, the Gambia and Madagascar).

60. To point with accuracy to a possible direct relationship between changes in the share of low-paid workers and changes in the Palma ratio it would be necessary to provide complementary estimates of, for example, the change seen in the number of top-paid workers, which might refer to those workers receiving 1.5 times the median hourly earnings.

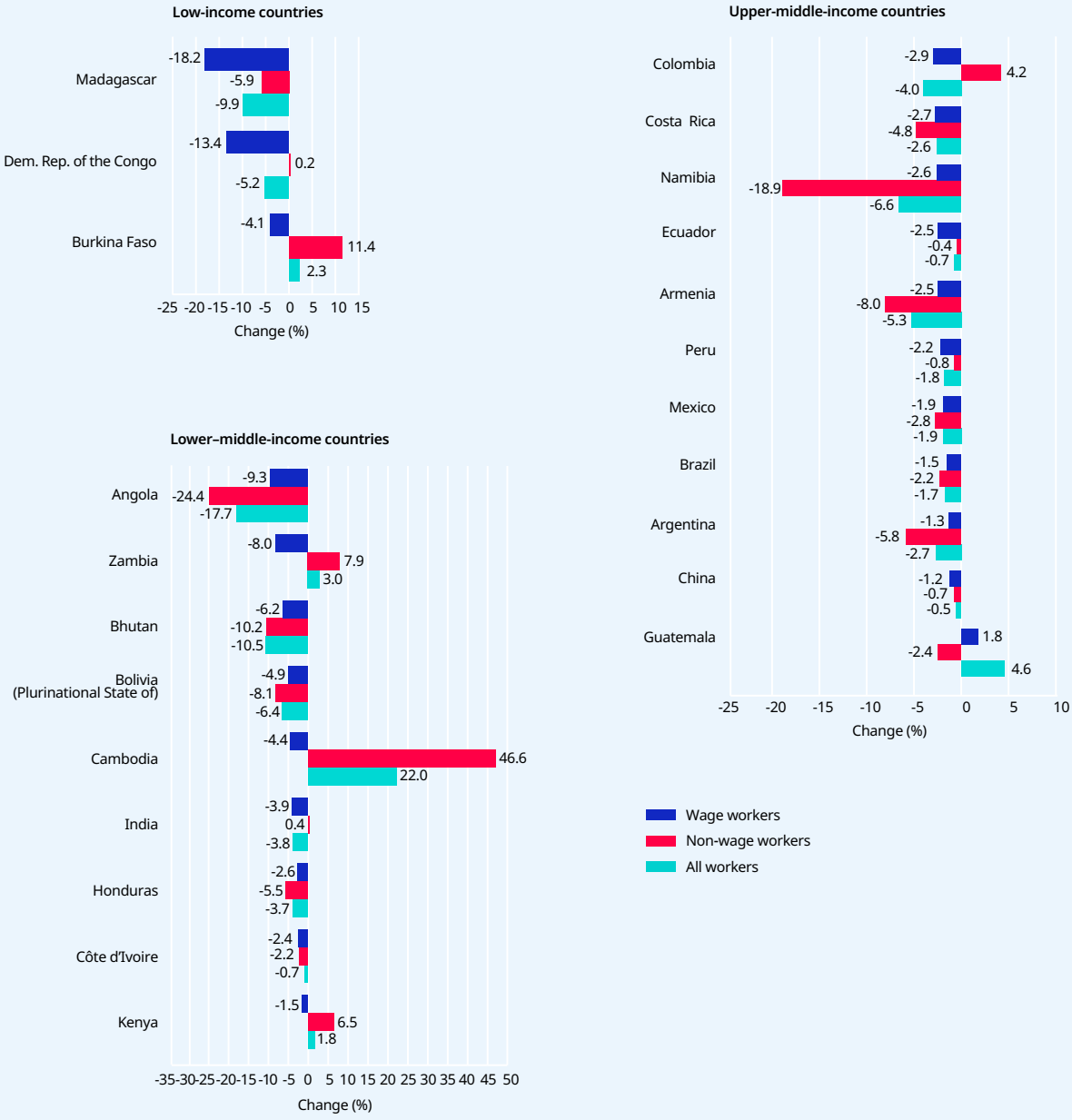
Figure 8.6. Average annualized growth rate in the share of low-paid workers among wage workers, non-wage workers and all workers, in selected countries between 2006 and 2021 (or closest available years) (percentage)



Notes: The annualized percentage change is calculated comparing the shares of low-paid workers from the earliest year (around 2006) and the latest available year (around 2021). The annualized growth rate is then calculated by smoothing the total growth rate between periods using the formula for ACGR. If Y1 is the value in the latest year, and Y0 is the value in the earliest year, and the value T is the number of years between the earliest year and latest year, the ACGR is estimated as ([(Y1/Y0)^(1/T)]-1)x100. This value is read as "the average increase in the value of the given measure on an annual basis expressed as per cent". The countries in each of the charts in this figure are organized in ascending order based on the degree to which the share of low-paid workers among wage workers has increased. "Non-wage workers" includes employers and own-account workers.

Source: ILO estimates based on national data. See Appendix I for the sources of data and year of collection.

Figure 8.7. Average annualized growth rate of the Palma ratio for wage workers, non-wage workers and all workers, in selected countries between 2006 and 2021 (or closest available years) (percentage)



Notes: The annualized percentage change is calculated comparing the Palma ratios from the earliest year (around 2006) and the latest available year (around 2021). The annualized growth rate is then calculated by smoothing the total growth rate between periods using the formula for ACGR. If Y1 is the value in the latest year, and Y0 is the value in the earliest year, and the value T is the number of years between the earliest year and latest year, the ACGR is estimated as ([(Y1/Y0)^(1/T)]-1) x100. This value is read as "the average increase in the value of the given measure on an annual basis expressed as per cent". The countries in each of the charts in this figure are organized in ascending order based on the degree to which the Palma ratio among wage workers has increased. "Non-wage workers" includes employers and own-account workers.

Source: ILO estimates based on national data. See Appendix I for the sources of data and year of collection.

Part III

Future insights and policy recommendations

9.1. The outlook for real wage growth

This new edition of the *Global Wage Report 2024–25* takes stock of the most recent wage trends in the period following the COVID-19 crisis and the resulting surge in inflation that peaked in 2022. In 2023 and 2024, inflation sharply reduced in high-income countries, but reduced to a much lesser extent in middle- and low-income countries. So, while the cost-of-living crisis appears to be easing in high-income countries, increasing prices are still very much a harsh reality for households and enterprises in many parts of the world.

The data collected for the report shows that, in many high-income countries, real wages declined in both 2022 and – to a lesser extent – in 2023. Data collected for the first half of 2024 shows, however, that in some high-income countries, average real wages have stabilized and are now starting to bounce back. This is due to a combination of factors that differ from country to country, including tighter labour markets and labour shortages in some places and sectors, which have made it necessary for enterprises to increase wages to attract workers, or substantial nominal wage increases negotiated through collective bargaining.[61] These developments – which have coincided with the decline in inflation rates – have resulted in some high-income countries seeing sizeable increases in real wages in 2024.

61. The European Central Bank (ECB) indicator of negotiated wages, which estimates the changes in nominal wages negotiated through collective bargaining in the euro area, shows that the growth of negotiated wages increased in the second half of 2023 and in the first quarters of 2024 (ECB 2024).

Despite the observed rebound, real average wages in most high-income countries remain below their pre-COVID-19 levels, and reversing the erosion of the cost of living remains a major concern and priority. Going forward, it is expected that the factors impacting wage growth that are currently at play will lead to a gradual recovery in the purchasing power of wages. This is likely to happen at different speeds, depending on national circumstances.

Statutory minimum wages, which exist in a large majority of developed countries, can be used for the progressive recovery of the purchasing power of low-wage earners. Indeed, the report shows that increases in average CPIs in many cases underestimate the impact of inflation on low-income households, who spend a larger share of their incomes on essential goods and services whose prices increased more rapidly than the average CPI. Whereas real minimum wages declined in most developed countries during 2021 and 2022, they ultimately contributed to the progressive recovery of purchasing power in 2023 and 2024.

Once wages have fully recovered and inflation returns to normal, it is expected that wage growth will be aligned with the pace of productivity growth in the long term. However, productivity growth does not automatically translate into wage growth, and this transmission crucially depends on the strength of labour market institutions such as collective bargaining (ILO 2022c).

In low- and middle-income countries, reducing inflation remains a priority, with some countries still being confronted with inflation rates of (or close to) double digit figures. In most of these countries, real wages have declined – sometimes dramatically – and avoiding further declines in the purchasing power of wages in 2024 will be very challenging. In other countries, inflation is well under control, and both economic growth and wage growth have remained positive throughout the last few years. In Asia in particular, inflation has on average been much lower than in Latin America and the Caribbean or in sub-Saharan Africa.

These latest developments are likely to reinforce the growing gap in average wages between middle-income and low-income countries. The report estimates that between 2006 and 2021 the median wage increased by 108 per cent in upper-middle-income countries, compared to 18 per cent in lower-middle-income countries, and just 9 per cent in low-income countries. Hence, while median wages in upper-middle-income countries in 2006 were slightly more than double the average wage in low-income countries, they are now almost 4.5 times higher.

Although collective bargaining systems remain weak in a majority of low- and middle-income countries, minimum wages are a nearly universal wage policy instrument that has been used to protect low-paid workers against the effects of inflation. Here again we observe significant differences among countries and income groups, with nominal minimum wage adjustments being much more frequent in upper-middle-income countries than in lower-middle-income and low-income countries. Among low-income countries, only about 20 to 30 per cent of countries have adjusted their minimum wages in 2022 and 2023, compared to more than 60 per cent of upper-middle-income countries.

Our report estimates that the world's median wage in 2021 was about US$846 PPP, with large differences across country income groups: US$3,333 PPP in high-income countries, US$630 PPP in middle-income countries, and US$201 PPP in low-income countries. Going forward there is a strong possibility that – propelled by solid economic growth and low inflation – wages in some of the large upper-middle-income countries will continue their gradual convergence towards those found in high-income countries, while many low-income countries will still be struggling with high inflation and risk being increasingly left behind.

▶ 9.2. The decline in wage inequality and its impact on the reduction of income inequality

This *Global Wage Report* estimates that wage inequality declined both globally, and within a majority of countries between roughly 2006 and 2021.

This decline in global wage inequality is, to a large extent, a reflection of the rapid growth of wages in some large middle-income countries, particularly China. This has led to a strong reduction of inequality in the upper half of the global wage distribution, but at the same time it has also led to an increase in inequality in the bottom half of the wage distribution. Because the increase in inequality in the bottom half was smaller than the decrease in inequality in the upper half, global wage inequality declined overall.

The decrease in wage inequality, combined with an increase of about 36 per cent in the global real average wage over the last 20 years, is encouraging and also reflected in the significant progress that has been made in reducing working poverty since the beginning of the century.

While the fall in global wage inequality is in line with existing research on global income inequality, the finding that wage inequality decreased within a majority of countries is more surprising (World Inequality Database 2024). Indeed, a large body of literature estimates that household income inequality *increased* in recent decades (Horowitz et al. 2022, Chancel and Piketty 2021). When analysing the period between 2006 and 2021 (or data points as close as possible to these years), the results indicate a decrease in wage inequality in a majority of countries in all income groups: high-income countries, middle-income countries and low-income countries. The same is obtained using different measures of wage inequality. Yet, because numerous data challenges exist in relation to measuring and estimating changes in wage inequality, and our sample of low-income countries was limited, more research will be needed to confirm this finding.[62]

The decrease in wage inequality, combined with an increase of about 36 per cent[63] in the global real average wage over the last 20 years, is encouraging and also reflected in the significant progress that has been made in reducing working poverty since the beginning of the century. Working poverty, defined as employed persons earning less than US$2.15 per day per person in PPP terms, declined from 27.6 per cent at the beginning of the century to 6.9 per cent in 2023 (ILO 2024b).

While these findings are encouraging, it remains a fact that global wage inequality is still enormous and that low-income countries are falling further behind. In the future, further reductions in global wage inequality will very much depend on the improvement of wages in low-income countries, which will require sustainable and inclusive job-rich growth.[64] However, such growth is constrained by a multiplicity of factors, including by chronic debt in some low-income countries, which has led to the channelling of a high share of national revenues into debt service, thereby reducing

62. One other study finds that wage inequality has decreased in Europe (Zwysen 2024).
63. Reflected by the cumulated average global wage growth between 2006 and 2024, as reported in figure 3.1.
64. As pointed out by Milanovic (2022), as China is moving to the upper half of the world's income distribution, mathematically its further growth no longer reduces global inequality, but may start to add to global inequality, as the distance between China and some of the very populous African countries continues to grow.

funding for investment and socio-economic development.

In high-income countries, where most workers are wage earners and where wages represent the largest share of household income, wage inequality is a major determinant of overall income inequality. The report found that wage inequality has decreased in most high-income countries, with levels substantially below those estimated for other country income groups.

While the report found that wage inequality has decreased in middle- and low-income countries, the extent to which this change may have led to a reduction in overall income inequality within these countries remains much more questionable. Indeed, while the share of wage employment has increased globally since the beginning of the century (ILO 2024b), our report shows that wage earners, particularly in low-income countries, still only represent a small share of all workers. When broadening the picture to include the many millions of non-wage workers, our report finds that measures of labour income inequality massively increase.

Wage inequality can also be studied between women and men. The report shows that women wage workers are generally overrepresented among low-paid workers in high-income, middle-income and low-income countries. In all three country income groups, a positive gender wage gap is observed, meaning that women are on average paid less than men. In high-income countries, the gender wage gap tends to be higher at the top of the wage distribution, whereas in low-income and lower-middle-income countries the gender wage gap is higher at the bottom of the distribution. When non-wage workers are added to the equation, labour income gaps between women and men further increase, as women are overrepresented among the many millions of non-wage workers who tend to earn lower labour incomes than wage workers.

Understanding the full extent of gender inequality in labour incomes should in principle also take into account the existence of yet another group of workers, namely contributing family workers. As the name suggests, these workers contribute to family-owned businesses or farms. Contributing family workers are often unpaid, but they may receive irregular payments in cash or in kind through family or intrahousehold transfers derived from the profits of the enterprise or from the income of the other person. Contributing family workers are thus at the low end of income distribution. Their exact numbers are often difficult to estimate, but there is no doubt that the overwhelming majority of contributing family workers are women. Excluding them from the analysis, as we did because of data limitation, thus introduces a bias into the analysis that leads to an underestimation of the gap in earnings faced by women compared to men.

▶ 9.3. Policy considerations

In general, the improvement of wage determination requires the strengthening of wage-setting practices in accordance with ILO standards. In this regard, the 2024 tripartite Meeting of Experts on wage policies, including living wages[65] highlighted that wage-setting practices should:

- be based on collective bargaining and tripartite social dialogue;
- take into account both the needs of workers and their families as well as economic factors;
- ensure gender equality and non-discrimination;
- utilize robust data and statistics for an evidence-based approach; and
- consider national circumstances and root causes of low pay, such as unfair distribution of value, low total factor productivity, informality, weak institutions and compliance systems.

65. See https://www.ilo.org/meetings-and-events/meeting-experts-wage-policies-including-living-wages.

To ensure that productivity growth results in wage growth requires strong and effective labour market institutions and social dialogue.[66]

Reducing household income inequality also requires the redistribution of income through a country's system of taxes and social transfers. The amount of redistribution through taxes and transfers depends on many factors, including the amount of taxes levied and distributed, the progressivity of taxation systems (that is, the extent to which high-income earners pay a larger share of their incomes in taxes), and the extent to which transfers benefit low-income households more than high-income households. In reality, there is far less redistribution in countries with lower income levels than in high-income countries (ILO 2021a). In low-income countries, there is relatively limited scope for redistribution through taxes and transfers because of limited fiscal resources due to high levels of informality.

At the same time, if the issue of low wages is not tackled, the capacity of social protection systems to reduce inequalities is also diminished, for several reasons. First, as a result of the social insurance formula, benefit levels are typically proportional to previous earnings. Therefore, when wages are very low, the level of pensions and other benefits may not be sufficient to prevent poverty and reduce inequality. Second, when earnings are low, the "opportunity cost" of contributing to social insurance is high, which can generate reluctance from both workers and employers to register with social security. Finally, low wages also negatively impact economic dynamism and aggregate demand, and hence the capacity to increase fiscal revenues and expand social protection.

In developing countries, the problem of low wages is compounded by the large share of own-account workers, whose labour earnings – as this report shows – are even lower than those of wage workers and who overwhelmingly work in the informal economy. Across the world, the share of informal employment has decreased slightly during the last 20 years or so, but the number of workers who are employed informally has actually increased over the same period from 1.7 billion to more than 2 billion (ILO 2024a). Low productivity is intricately interrelated with informality, with low productivity being a driver of informality and informality holding back productivity growth. This vicious cycle can lead to a so-called "low-income trap" (ILO 2021e). There is, therefore, a need to strengthen policies and measures that jointly promote productivity, decent work and the formalization of the informal economy.

Greater productivity growth can be achieved through improved "productivity ecosystems for decent work", including at the policy level, the sectoral level and the enterprise level. This includes, for example: the creation of an enabling environment for entrepreneurship and sustainable enterprises, in particular micro-, small- and medium-sized enterprises; improved access to finance; and strong public support for technological innovation and skills development. Productivity growth also requires structural transformation in which economies and jobs gradually move from low-productivity sectors, such as traditional agriculture, and towards higher value-added manufacturing or service sectors, which also generate more formal wage employment. Unfortunately, in many economies, the transformation of countries' production structures from low value-added to high value-added activities has slowed (ILO 2022c).

Efforts to promote productivity growth should not come at the expense of the environment. The ILO estimates that by 2030, 2 per cent of working hours will be lost, globally, as a result of heat stress, which represents one of the most immediate effects of climate change on the world of work. The urgency and importance of a just transition towards environmentally sustainable economies and societies for all is without question. Although the move to greener production processes may boost productivity in the medium to long term, this transition will require access to substantial capital, clean technologies, affordable renewable energies, know-how and adequate skills

66. ILO 2024d.

in the short term.[67] At the enterprise level, adoption of green business practices will be of the utmost importance. Furthermore, sustainable industrial policies and improvements in efficiency of resource use will be essential to achieve environmentally sustainable productivity growth.

The reasons why millions of workers – in the formal and informal economies – across the world continue to earn very low wages and are still living in poverty are thus multiple. This is why the ILO tripartite Meeting of Experts on wage policies, including living wages that took place in February 2024 observed that:

> "any sustainable strategy to promote living wages should go beyond the realm of wage-setting mechanisms alone and include a broader consideration of factors, such as sustainable economic growth and structural transformation, to raise productivity. It should also ensure that productivity growth results in wage growth – which is possible only through strong and effective labour market institutions and social dialogue (ILO 2024d, appendix para. 12)."

Strategies to reduce inequalities should also address horizonal inequalities, such as gender inequalities and inequalities between different groups.

National strategies to reduce inequalities should consider a range of measures, including the areas of education and skills, closing productivity gaps, reducing gender inequality and targeted support for disadvantaged groups – to name just a few. In the area of education and skills, reducing inequality may involve measures to foster equal opportunity and access to quality and relevant education and training that are responsive to societal and labour market needs. Closing some of the sometimes enormous productivity differentials between smaller and larger enterprises may involve measures such as:

- the allocation of public funding through development banking for productive entrepreneurship;
- credit to the private sector through the financial system and alternative funding options;
- local innovation systems and investment in research and development;
- protection of property rights;
- domestic market development;
- trade policy; and
- anti-trust and fair-competition policies (Oricchio et al. 2017).

Strategies to reduce inequalities should also address horizonal inequalities, such as gender inequalities and inequalities between different groups. Gender inequalities are often rooted in discrimination and entrenched stereotypes relating to women in society; hence the need to promote equal opportunities, equal participation and equal treatment, including equal remuneration for women and men for work of equal value; the need to enable a more balanced sharing of family responsibilities; and the need to promote investment in the care economy. Finally, particular dynamics of inequalities arise where people belong to multiple groups (for example, women who are also migrant workers), generating "intersectionality" of cumulative disadvantage (Sheppard 2011). This is why some countries have not only adopted labour legislation that explicitly prohibits any discrimination, but also taken specific targeted measures to actively support disadvantaged groups.

Finally, household income inequality not only depends on the distribution of primary market income from labour or other sources, but also on demographic factors. The latter include the dependency ratio (the number of young and old people per working-age individual) within households, as well as the share of non-labour market households. In ageing societies, for example, the weight of non-labour market households (where everyone

67. See ILO 2022c.

is too old to participate in paid work) is rising. Consequently, higher wages and labour income are not just important for reducing inequality among households with working members, but also serve as a driver of policies that can help reduce income gaps between working and not-working households.

This being said, national strategies to reduce inequalities should be country-specific and based on a detailed analysis of the extent of the different forms of inequality that prevail in the country. Our report has shown that while wage inequality has declined in a majority of countries, it has increased in others and remains high in many countries. In-depth country studies are necessary to understand the root causes of inequality in the specific circumstances of individual countries. While our report has focused on recent trends, it is beyond the scope of the *Global Wage Report* to identify the determinants of inequality changes in specific national circumstances.

Across the world, a majority of national statistical offices collect data that can be used to analyse inequalities from labour force surveys, establishment surveys and/or household income and expenditure surveys. These data represent precious sources of information that can be used to undertake national inequality diagnostic studies. Implementing such surveys is costly, and the frequency of data collection understandably varies from country to country. In many countries, however, there is scope to improve the quality and frequency of data collection on wages and, especially, on the labour incomes of non-wage workers. Such data can be instrumental in designing evidence-based policies that can benefit millions of workers.

As emphasized in the ILO tripartite Meeting of Experts on wage policies, including living wages, "decent wages are central to economic and social development and essential in reducing poverty and inequality, as well as in ensuring a decent and dignified life and in advancing social justice" (ILO 2024d, appendix para. 3).

Appendices

Appendix I. Sources of survey data

Country	Country income group	T0	T1	Name of survey	Institution responsible for survey
Angola	Lower-middle-income	2019	2021	Inquérito ao Emprego em Angola	National Institute of Statistics
Argentina	Upper-middle-income	2006	2023	Encuesta Permanente de Hogares	National Institute of Statistics and Censuses
Armenia	Upper-middle-income	2014	2021	Household Labour Force Survey	National Statistical Service
Bangladesh	Lower-middle-income	2013	2022	Labour Force Survey	Bangladesh Bureau of Statistics
Belgium	High-income	2006	2018	Structure of Earnings Survey	Eurostat
Bhutan	Lower-middle-income	2018	2022	Labour Force Survey	National Statistics Bureau
Bolivia (Plurinational State of)	Lower-middle-income	2006	2021	Encuesta Continua de Empleo	National Institute of Statistics
Botswana	Upper-middle-income	2019	2022	Multi-Topic Household Survey	Statistics Botswana
Bulgaria	Upper-middle-income	2006	2018	Structure of Earnings Survey	Eurostat
Burkina Faso	Low-income	n.a.	2018	Enquête Régionale Intégrée sur l'Emploi et le Secteur Informel	Institut National de la Statistique et de la Démographie
Brazil	Upper-middle-income	2006	2023	Pesquisa Nacional por Amostra de Domicílios Contínua	Instituto Brasileiro de Geografia e Estadística
Cambodia	Lower-middle-income	2012	2019	Labour Force Survey	National Institute of Statistics
Cameroon	Lower-middle-income	2007	2014	Enquête auprès des Ménages	Institut National de la Statistique
Canada	High-income	2006	2023	Labour Force Survey	Statistics Canada
Chad	Low-income	n.a.	2018	Enquête Harmonisée sur les Conditions de Vie des Ménages	Institut National de la Statistique, des Etudes Economique et Démographiques
Chile	High-income	2006	2021	Encuesta de Caracterización Socioeconómica Nacional	Instituto Nacional de Estadísticas
China	Upper-middle-income	2008	2018	Chinese Household Income Project	China Institute for Income Distribution, Beijing Normal University
Colombia	Upper-middle-income	2007	2023	Gran Encuesta Integrada de Hogares	Departamento Administrativo Nacional de Estadística
Congo	Lower-middle-income	n.a.	2009	Enquête sur l'emploi et le secteur informel	Institution National de la Statistique
Costa Rica	Upper-middle-income	2010	2023	Encuesta Continua de Empleo	Instituto Nacional de Estadística y Censos
Côte d'Ivoire	Lower-middle-income	2012	2019	Enquête nationale sur la situation de l'emploi	Institut National de la Statistique
Croatia	High-income	2010	2018	Structure of Earnings Survey	Eurostat
Cyprus	High-income	2006	2018	Structure of Earnings Survey	Eurostat
Czechia	High-income	2006	2018	Structure of Earnings Survey	Eurostat
Democratic Republic of the Congo	Low-income	2005	2012	Enquête 1-2-3 sur l'Emploi et le Secteur Informel	Institut National de la Statistique
Denmark	High-income	2014	2018	Structure of Earnings Survey	Eurostat
Ecuador	Upper-middle-income	2006	2023	Encuesta Nacional de Empleo, Desempleo y Subempleo	Instituto Nacional de Estadística y Censos del Ecuador
Egypt	Lower-middle-income	2008	2021	Labour Force Sample Survey	Central Agency for Public Mobilisation and Statistics

n.a = not applicable

Country	Country income group	T0	T1	Name of survey	Institution responsible for survey
Estonia	High-income	2006	2018	Structure of Earnings Survey	Eurostat
Eswatini	Lower-middle-income	n.a.	2021	Labour Force Survey	Office Fédéral de la Statistique
Ethiopia	Low-income	2005	2021	National Labour Force Survey	Ethiopian Statistics Service
Finland	High-income	2006	2018	Structure of Earnings Survey	Eurostat
France	High-income	2006	2018	Structure of Earnings Survey	Eurostat
Gambia	Low-income	2012	2023	Labour Force Survey	Gambia Bureau of Statistics
Ghana	Lower-middle-income	n.a.	2015	Labour Force Survey	Ghana Statistical Service
Greece	High-income	2006	2018	Structure of Earnings Survey	Eurostat
Guatemala	Upper-middle-income	2004	2022	Encuesta Nacional de Empleo e Ingresos	Instituto Nacional de Estadística
Guinea-Bissau	Low-income	n.a.	2018	Inquérito Harmonizado sobre às Condições de vida dos Agregados Familiares	Instituto Nacional de Estatística
Honduras	Lower-middle-income	2006	2023	Encuesta Permanente de Hogares de Propósitos Múltiples	Instituto Nacional de Estadística
Hungary	High-income	2006	2018	Structure of Earnings Survey	Eurostat
Iceland	High-income	n.a.	2018	Structure of Earnings Survey	Eurostat
India	Lower-middle-income	2018	2022	Periodic Labour Force Survey	Ministry of Statistics and Programme Implementation
Indonesia	Upper-middle-income	2000	2021	National Labour Force Survey	Statistics Indonesia
Italy	High-income	2006	2018	Structure of Earnings Survey	Eurostat
Kenya	Lower-middle-income	2005	2019	Household Budget Survey	Kenya National Bureau of Statistics
Lao People's Democratic Republic	Lower-middle-income	2010	2022	Labour Force Survey	Lao Statistics Bureau
Latvia	High-income	2006	2018	Structure of Earnings Survey	Eurostat
Lithuania	High-income	2006	2018	Structure of Earnings Survey	Eurostat
Luxembourg	High-income	2006	2018	Structure of Earnings Survey	Eurostat
Madagascar	Low-income	2012	2015	Enquête Nationale sur l'Emploi et le Secteur Informel	Institut National de la Statistique
Malawi	Low-income	n.a.	2013	Labour Force Survey	National Statistical Office
Mali	Low-income	2013	2020	Enquête Modulaire et Permanente auprès des Ménages	Institut national de la statistique
Malta	High-income	2014	2018	Structure of Earnings Survey	Eurostat
Mexico	Upper-middle-income	2006	2023	Encuesta Nacional de Ocupación y Empleo	Instituto Nacional de Estadística y Geografía
Myanmar	Lower-middle-income	2015	2020	Labour Force Survey	Central Statistical Organization
Namibia	Upper-middle-income	2012	2018	Labour Force Survey	Namibia Statistics Agency
Nepal	Lower-middle-income	2008	2017	Labour Force Survey	Central Bureau of Statistics
Netherlands	High-income	2006	2018	Structure of Earnings Survey	Eurostat
Nigeria	Lower-middle-income	2011	2019	General Household Survey	National Bureau of Statistics
Norway	High-income	2006	2018	Structure of Earnings Survey	Eurostat

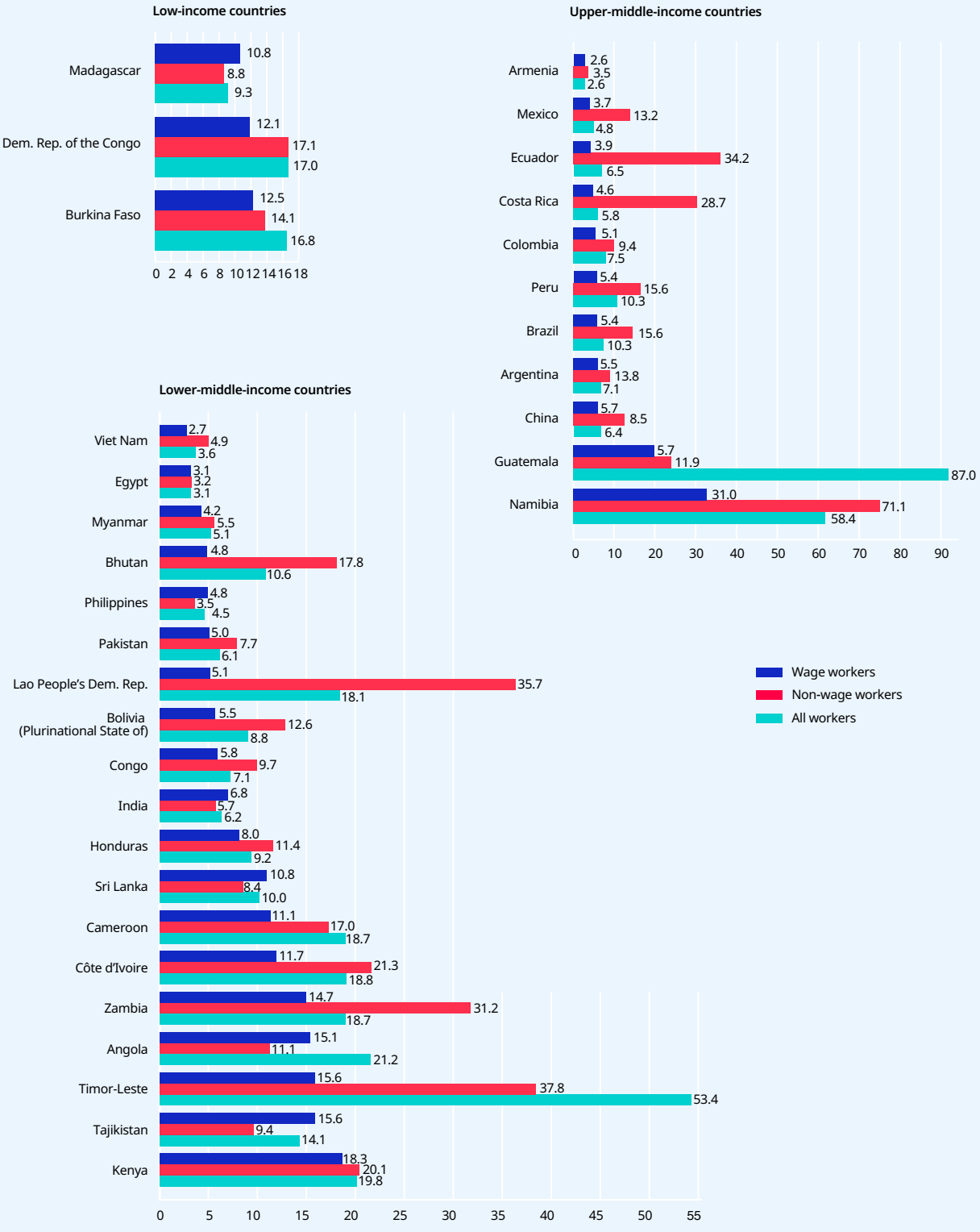
n.a = not applicable

Country	Country income group	T0	T1	Name of survey	Institution responsible for survey
Pakistan	Lower-middle-income	2006	2021	Labour Force Survey	Pakistan Bureau of Statistics
Peru	Upper-middle-income	2006	2022	Encuesta Permanente de Empleo	Instituto Nacional de Estadística e Informática
Philippines	Lower-middle-income	2001	2021	Labor Force Survey	Philippines Statistical Authority
Poland	High-income	2006	2018	Structure of Earnings Survey	Eurostat
Portugal	High-income	2006	2018	Structure of Earnings Survey	Eurostat
Republic of Korea	High-income	n.a.	2019	Labour and Income Panel Survey	Statistics Korea
Rwanda	Low-income	2017	2021	Labour Force Survey	Rwanda National Institute of Statistics
Senegal	Lower-middle-income	n.a.	2019	Enquête Nationale sur l'Emploi	Agence Nationale de la Statistique et de la Démographie
Slovakia	High-income	2006	2018	Structure of Earnings Survey	Eurostat
Slovenia	High-income	2014	2018	Structure of Earnings Survey	Eurostat
Spain	High-income	2006	2018	Structure of Earnings Survey	Eurostat
Sri Lanka	Lower-middle-income	2010	2020	Labour Force Survey	Department of Census and Statistics
Sweden	High-income	2006	2018	Structure of Earnings Survey	Eurostat
Tajikistan	Lower-middle-income	2003	2009	Living Standards Survey	Agency on Statistics under the President of the Republic of Tajikistan
Thailand	Upper-middle-income	2015	2022	Labour force survey	National Statistical Office
Timor-Leste	Lower-middle-income	2010	2021	Labour Force Survey	General Directorate of Statistics
United Kingdom	High-income	2006	2021	Labour Force Survey	Office for National Statistics
United Republic of Tanzania	Lower-middle-income	2010	2020	National Panel Survey	National Bureau of Statistics
United States	High-income	2006	2021	Current Population Survey	Bureau of Labor Statistics
Uruguay	High-income	2006	2023	Encuesta Continua de Hogares	Instituto Nacional de Estadística
Viet Nam	Lower-middle-income	2011	2022	Labour Force Survey	General Statistics Office
Zambia	Lower-middle-income	2017	2021	Labour Force Survey	Zambia Statistics Agency

n.a = not applicable

Appendix II. Inequality measures for wage workers and non-workers by country

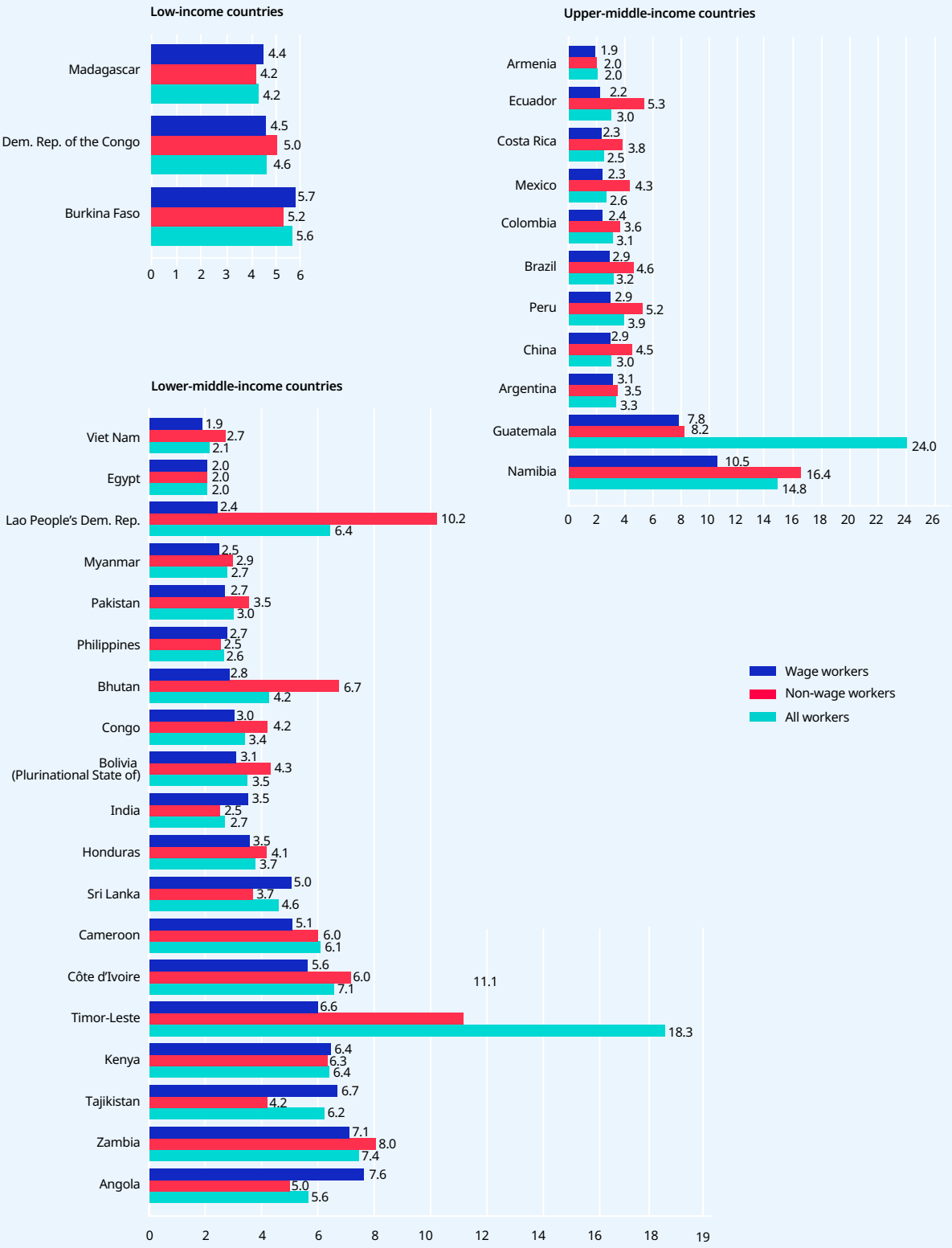
Figure A2.1. Estimated D9/D1 ratio for wage workers, non-wage workers and all workers, available countries by country income group, latest available year



Notes: Cambodia, the Gambia, Malawi, Nigeria and Rwanda are not displayed because the estimates at D1 are zero or close to zero and this makes it difficult to identify the ratio D9/D1. For consistency across different estimates of the D-ratios in this appendix, these countries are not included in figures A2.1 to A2.4. Countries are shown in ascending order among wage workers. Non-wage workers include employers and own-account workers.

Source: ILO estimates using data as described in Appendix I (see section 8.5).

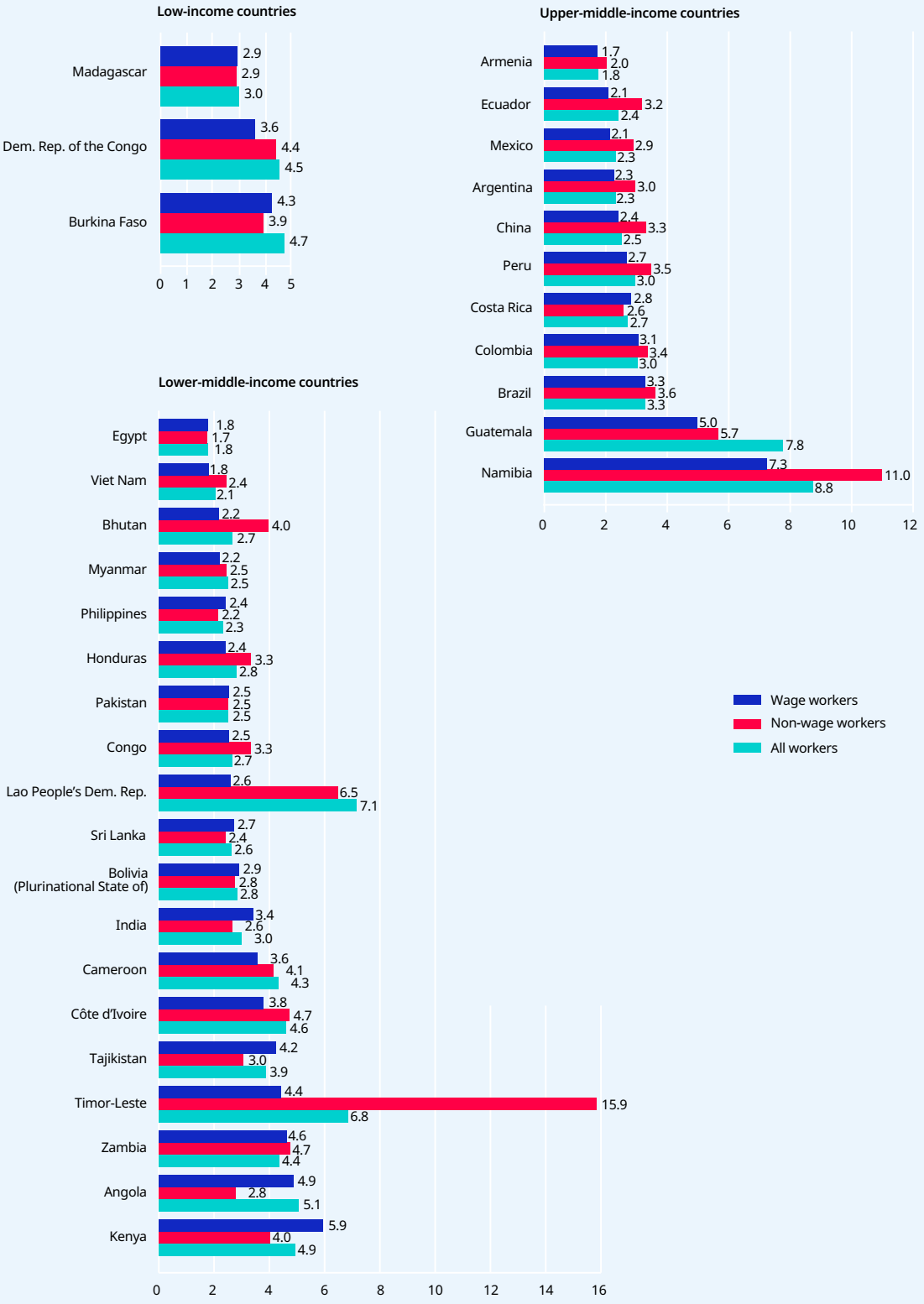
Figure A2.2. Estimated D8/D2 ratio for wage workers, non-wage workers and all workers, available countries by country income group, latest available year



Notes: Cambodia, the Gambia, Malawi, Nigeria and Rwanda are not displayed because the estimates at D1 are zero or close to zero and this makes it difficult to identify the ratio D9/D1. For consistency across different estimates of the D-rations in this appendix, these countries are not included in any of the figures A2.1 to A2.4. Countries are shown in ascending order among wage workers. Non-wage workers include employers and own-account workers.

Source: ILO estimates using data as described in Appendix I (see section 8.5).

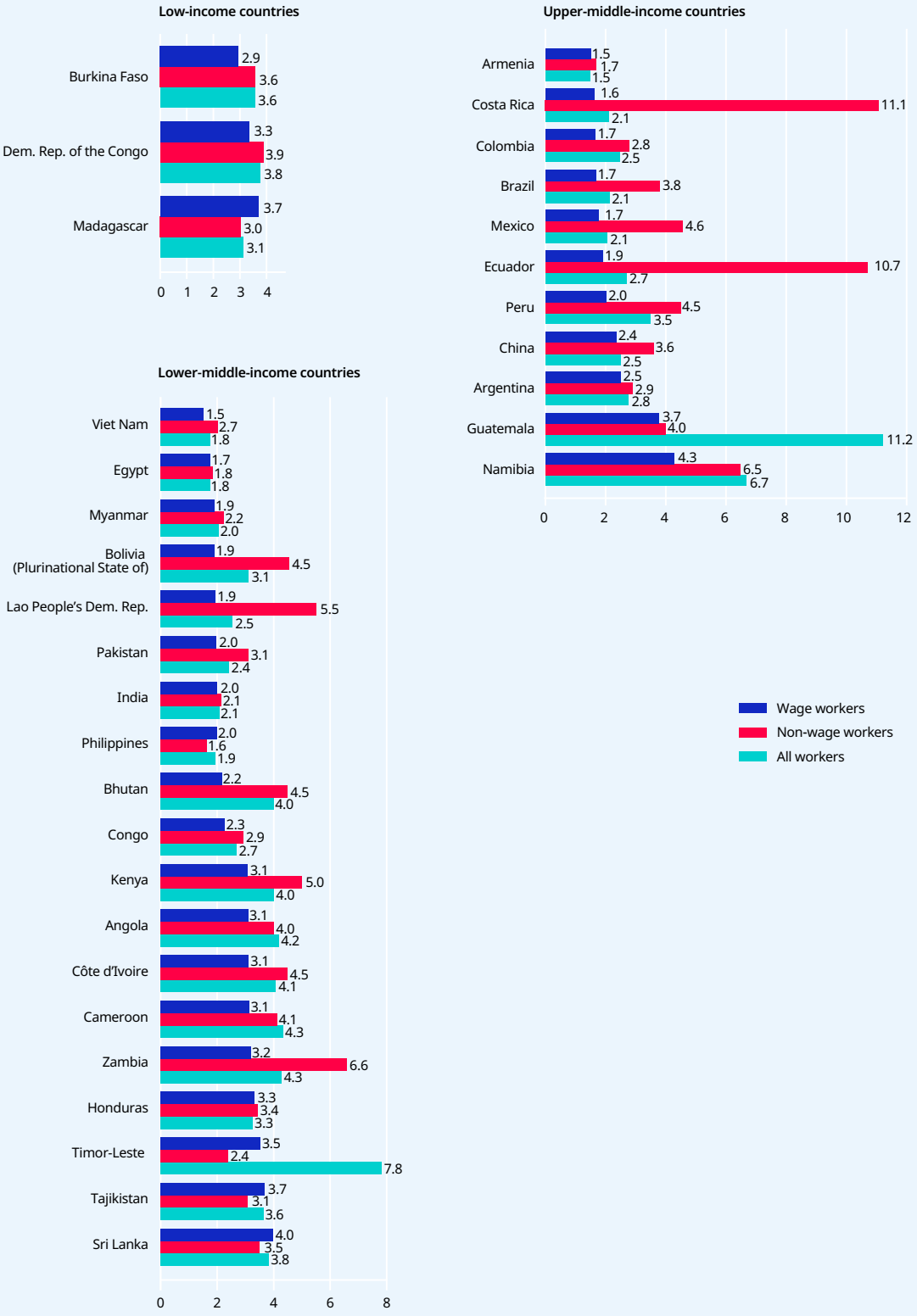
Figure A2.3. Estimated D9/D5 ratio for wage workers, non-wage workers and all workers, available countries by country income group, latest available year



Notes: Cambodia, the Gambia, Malawi, Nigeria and Rwanda are not displayed because the estimates at D1 are zero or close to zero and this makes it difficult to identify the ratio D9/D1. For consistency across different estimates of the D-rations in this appendix, these countries are not included in any of the figures A2.1 to A2.4. Countries are shown in ascending order among wage workers. Non-wage workers include employers and own-account workers.

Source: ILO estimates using data as described in Appendix I (see section 8.5).

Figure A2.4. Estimated D5/D1 ratio for wage workers, non-wage workers and all workers, available countries by country income group, latest available year



Notes: Cambodia, the Gambia, Malawi, Nigeria and Rwanda are not displayed because the estimates at D1 are zero or close to zero and this makes it difficult to identify the ratio D9/D1. For consistency across different estimates of the D-ratios in this appendix, these countries are not included in figures A2.1 to A2.4. Countries are shown in ascending order among wage workers. Non-wage workers include employers and own-account workers.

Source: ILO estimates using data as described in Appendix I (see section 8.5).

Appendix III. Brief examination of countries where the share of low-paid workers does not increase after the inclusion of non-wage workers in estimates

In section 8.5, it was mentioned that, in six countries, the share of low-paid workers either does not change, or in some cases declines, when non-wage workers are added to the estimations.[68] These countries are Honduras, India, the Lao People's Democratic Republic, the Philippines, Sri Lanka and Tajikistan. Figure A3.1 explores why this may be the case by comparing the earnings distribution of wage workers and non-wage workers in these six countries.[69] As a way to contrast these findings, and therefore understand better the results in figure A3.1, figure A3.2 complements the former by adding and comparing the distributions from a selection of countries that show an increase in the share of low-paid workers when non-wage workers are added in its computation (as per figure 8.4).

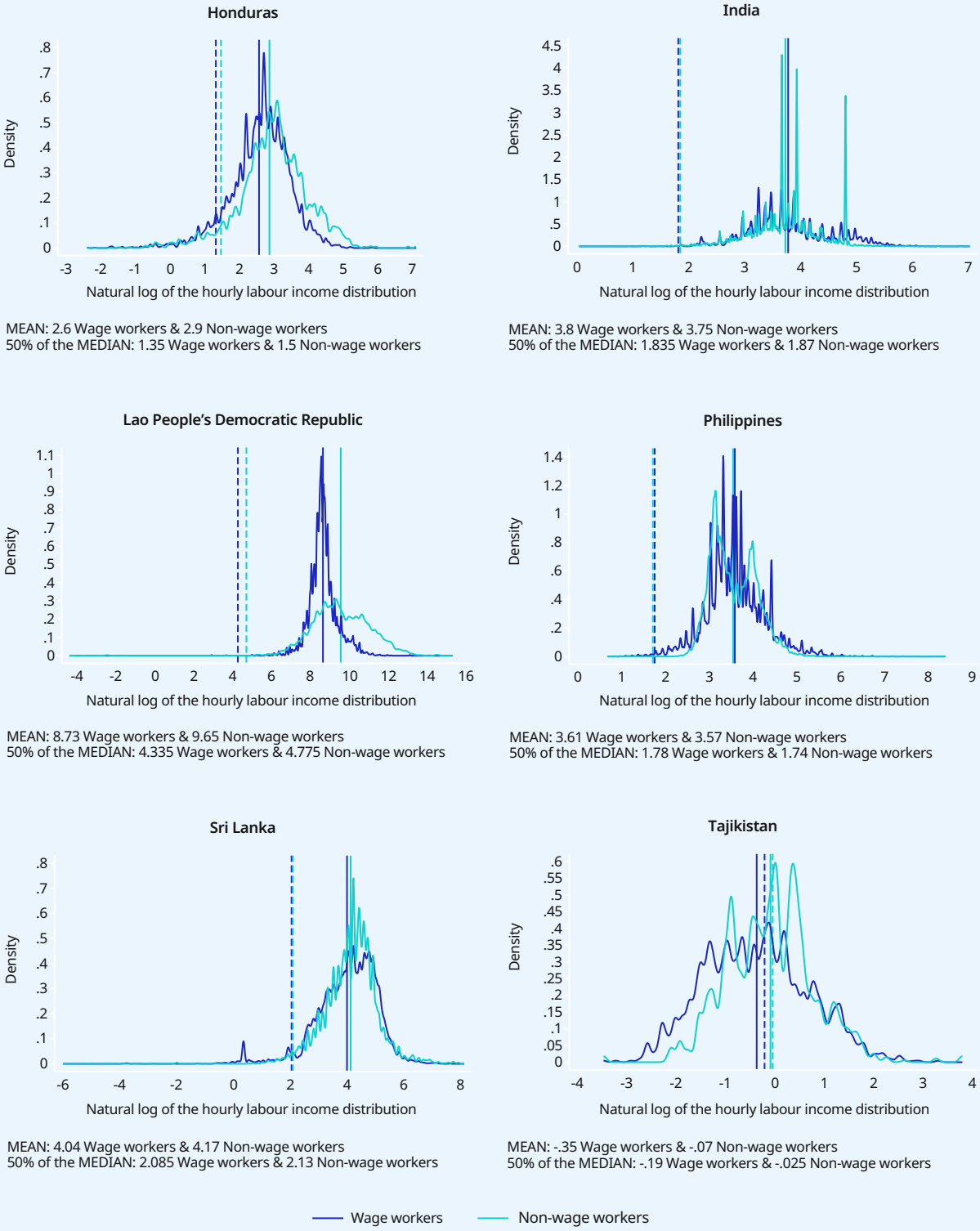
Figure A3.1 shows that, for the six countries listed above, the distribution of hourly earnings among non-wage workers is in fact slightly shifted to the right compared to the hourly earnings distribution among wage workers. That is, the hourly earnings scale of non-wage workers spans over a range of values that is higher than that of wage workers. In other words, a share of non-wage workers have higher levels of earnings than higher-paid wage workers in these populations. This can also be seen in all six countries in figure A3.1 where the average hourly earning (solid lines) in the population of non-wage workers is to the right of that estimated among wage workers.

By contrast, figure A3.2 shows examples of countries where the addition of non-wage workers leads to an increase in the share of low-paid workers. In all of these cases, the distribution of hourly earnings among non-wage workers shifts to the left compared to the distribution of hourly earnings among wage workers. As illustrated by the solid lines in each of the charts (which locate the average hourly earnings in each of the distributions), wage workers earn, on average, a higher hourly amount compared to non-wage workers.

68. In section 8.5, in four countries a similar outcome is found with the Palma ratio: it declines rather than increases when non-wage workers are added to the computation. These countries are Egypt, India, the Philippines and Tajikistan. They are, therefore, very similar to the set where it was found that adding non-wage workers declines the proportion of low-paid workers.

69. The charts in figures A3.1 and A3.2 show earnings in natural logarithms – that is, a transformation of the value of hourly earnings that allows a clearer illustrating of the scales when these are too skewed to the left. The horizontal axis presents such earnings scales, whereas the vertical axis can be interpreted as the proportion of workers that fall under each value (hourly earnings) identified among workers. At low levels of hourly earnings there are fewer workers, so the curves in the charts are flat and close to the zero value. As hourly earnings increase – that is moving from left to right – the number of workers in each of these higher hourly earnings levels increases and, therefore, the value in the vertical axis also increases, as shown with the curves that take off from flat levels and rise to show a greater share of workers associated with higher earnings. Eventually, the value of the hourly earnings becomes high enough so that the probability of finding workers at those high levels of earnings starts to decline – and so do the curves, which begin to fall to flatter levels as the earnings scale reaches its top values.

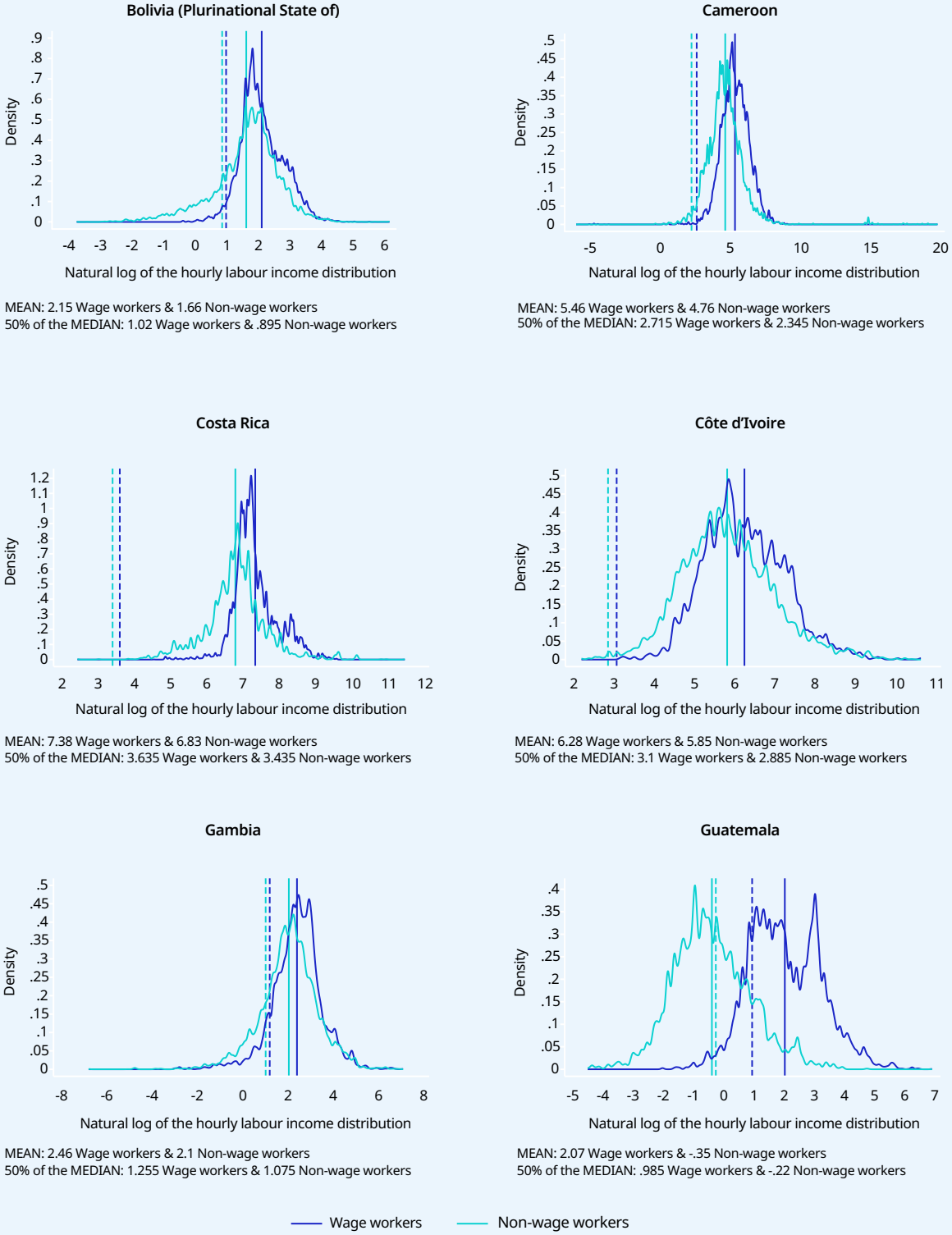
Figure A3.1. Comparison of the earning structures of wage workers and non-wage workers in countries that show no change or decreasing shares of low-paid workers when non-wage workers are included to estimate labour income inequality, latest available year (around 2021)



Notes: The densities are based on estimating unconditional kernels for each of the two populations of workers separately. The solid lines show the average hourly earnings in their respective populations. The dashed lines show the location of the 50 per cent of the median earnings in their respective populations. The dashed line estimated using the distribution of earnings among wage employees (the wage distribution) is applied to the population to estimate (i) the proportion of low-paid workers and (ii) how the addition of non-wage earners impacts the total count of low-paid workers among all workers in the population, as described in section 8.4.

Source: ILO estimates using data as described in Appendix I.

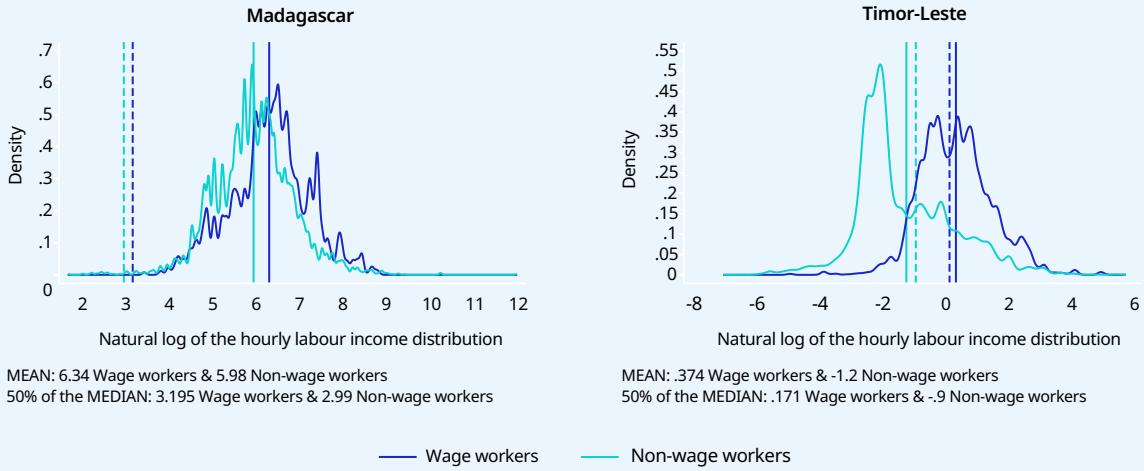
Figure A3.2. Comparison of the earning structures of wage workers and non-wage workers in selected countries that show increasing shares of low-paid workers when non-wage workers are included to estimate labour income inequality, latest available year (around 2021)



Notes: The densities are based on estimating unconditional kernels for each of the two populations of workers separately. The solid lines show the average hourly earnings in their respective populations. The dashed lines show the location of the 50 per cent of the median earnings in their respective populations. The dashed line estimated using the distribution of earnings among wage employees (the wage distribution) is applied to the population to estimate (i) the proportion of low-paid workers and (ii) how the addition of non-wage earners impacts the total count of low-paid workers among all workers in the population, as described in section 8.4.

Source: ILO estimates using data as described in Appendix I.

Figure A3.2. *(continued)*



Notes: The densities are based on estimating unconditional kernels for each of the two populations of workers separately. The solid lines show the average hourly earnings in their respective populations. The dashed lines show the location of the 50 per cent of the median earnings in their respective populations. The dashed line estimated using the distribution of earnings among wage employees (the wage distribution) is applied to the population to estimate (i) the proportion of low-paid workers and (ii) how the addition of non-wage earners impacts the total count of low-paid workers among all workers in the population, as described in section 8.4.

Source: ILO estimates using data as described in Appendix I.

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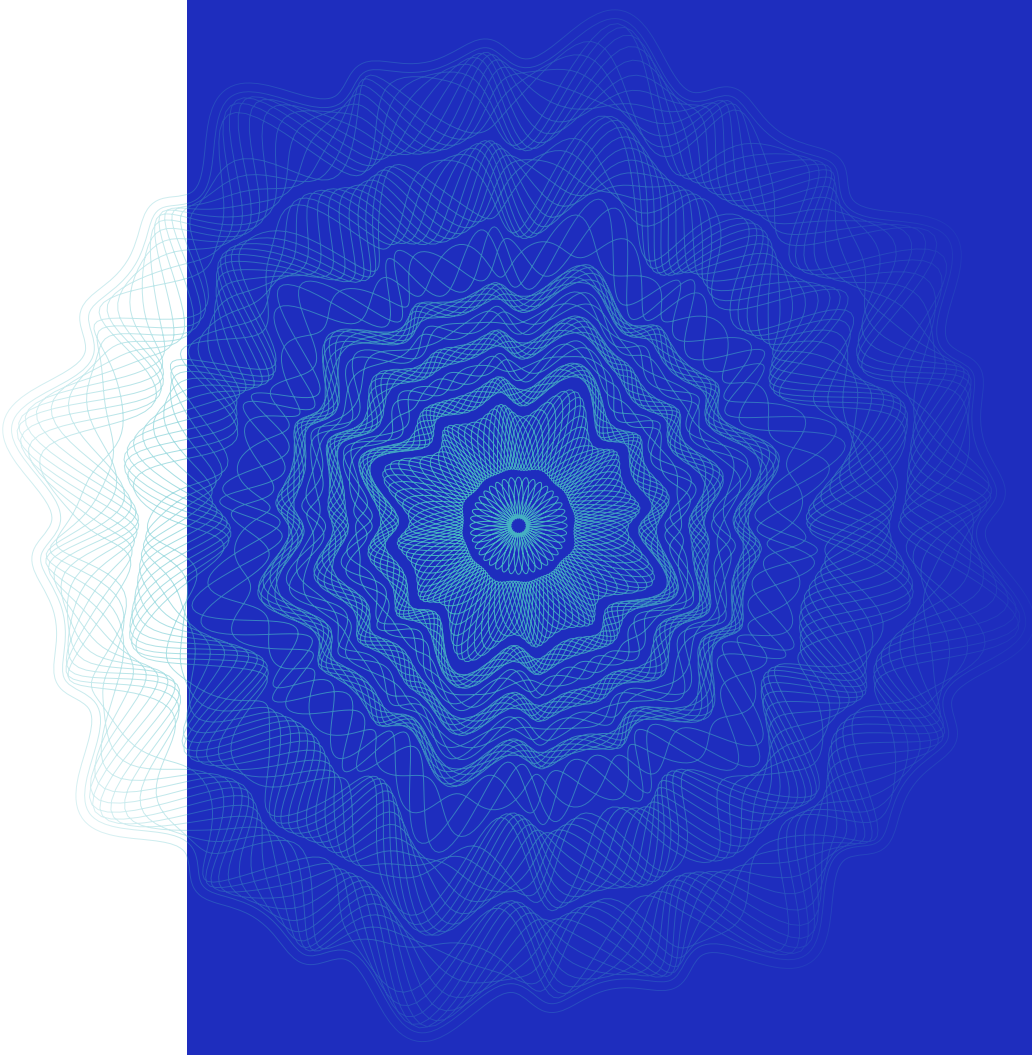
"This highly pertinent edition of the *Global Wage Report* documents recent global and regional trends in real wages and provides a thorough assessment of two decades of change in wage inequality, both at the global level as well as within and across countries. The findings are thought-provoking and should both enlighten and stimulate the discussion among policymakers, labour market experts, the social partners, and anyone interested in inequality and economic welfare."

Erling Barth, Institute for social research, Oslo.



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ISBN 978-92-2-040976-3