## **Executive summary**

### Part I. Major trends in wages

### Lowest wage growth globally in 2017 since 2008

Global wage growth in 2017 was not only lower than in 2016, but fell to its lowest growth rate since 2008, remaining far below the levels obtaining before the global financial crisis. Global wage growth in real terms (that is, adjusted for price inflation) has declined from 2.4 per cent in 2016 to just 1.8 per cent in 2017. If China, whose large population and rapid wage growth significantly influence the global average, is excluded, global wage growth in real terms fell from 1.8 per cent in 2016 to 1.1 per cent in 2017.

Real wage growth is calculated using gross monthly wages, rather than hourly wage rates, which are less frequently available, and fluctuations therefore reflect both hourly wages and the average number of hours worked.

# Slow wage growth in high-income countries despite economic recovery and falling unemployment

In the advanced G20 countries, real wage growth declined from 1.7 per cent in 2015 to 0.9 per cent in 2016 and 0.4 per cent in 2017. In Europe (excluding Eastern Europe), real wage growth declined from 1.6 per cent in 2015 to 1.3 per cent in 2016 and further declined to about zero in 2017, owing to lower wage growth in countries including France and Germany, and declining real wages in Italy and Spain; in Eastern Europe, by contrast, real wage growth recovered from its 4.9 per cent decline in 2015 and continued to increase thereafter, from 2.8 per cent in 2016 to 5.0 per cent in 2017. Real wage growth in the United States declined from 2.2 per cent in 2015 to 0.7 per cent in both 2016 and 2017.

Given the recovery in GDP growth and the gradual reduction in unemployment rates in various countries, slow wage growth in high-income countries in 2017 represented somewhat of a puzzle and has been the subject of intense debate. Possible explanations for subdued wage growth include slow productivity growth, the intensification of global competition, the decline in the bargaining power of workers and the inability of unemployment statistics to adequately capture slack in the labour market, as well as an uncertain economic outlook which may have discouraged firms from raising wages.<sup>1</sup>

In view of this low wage growth, it is perhaps not too surprising that the acceleration of economic growth in high-income countries in 2017 was led mainly by higher investment spending, rather than by private consumption.

<sup>1.</sup> See, for example, OECD, 2018; IMF, 2017.

# More robust wage growth in low- and middle-income countries, with much diversity across countries and regions

In emerging and developing countries of the G20, real wage growth has fluctuated in recent years, rising from 2.9 per cent in 2015 to 4.9 per cent in 2016, and then falling back to 4.3 per cent in 2017.

Workers in Asia and the Pacific have enjoyed the highest real wage growth among all regions over the period 2006–17. However, even here wage growth in 2017 was lower than in 2016, falling from 4.8 per cent in 2016 to 3.5 per cent in 2017. Wage growth also declined in Central and Western Asia, from 3.0 per cent in 2016 to 0.5 per cent in 2017. In Latin America and the Caribbean, real wage growth in 2017 increased slightly compared to 2016 but remains relatively low, below the 1 per cent mark. In Africa, where wage data have been collected for the first time for a significant number of countries, real wages appear to have declined overall in 2017 by 3.0 per cent. This is mainly attributable to negative wage trends in Egypt and Nigeria, two large countries which exert a strong influence on our weighted regional average. If these two countries are taken out of the sample, real wages in Africa are estimated to have increased by a moderate 1.3 per cent in 2017.

Taking a longer perspective, real wages between 1999 and 2017 have almost tripled in the emerging and developing countries of the G20, while in advanced G20 countries they have increased by a much lower total of 9 per cent. Yet in many low- and middle-income countries average wages remain low and insufficient to adequately cover the needs of workers and their families.

#### Wage growth lagging behind productivity growth in high-income countries

Looking at trends in average wages and labour productivity over the period 1999–2017 in 52 high-income countries, the report finds that, on average, labour productivity has increased more rapidly (by a total of 17 per cent) than real wages (13 per cent), although the gap between the two trends narrowed between 2015 and 2017. Overall, the decoupling between wages and labour productivity explains why labour income shares (the share of labour compensation in GDP) in many countries remain substantially below those of the early 1990s.

#### Wage inequality highest in low-income countries

Using survey data on wages from 64 countries which, together, reflect the wage distribution of about 75 per cent of the world's wage employees, the report finds that the countries with the lowest levels of wage inequality are found among the high-income group, whereas countries with the highest levels of wage inequality are found in the low- and middle-income groups. Among high-income countries, wage inequality is lowest in Sweden and highest in Chile. Among low-income and middle-income countries, South Africa and Namibia have the highest inequality, Armenia and Mongolia the lowest.

### Part II. Measuring gender pay gaps and understanding what lies behind them

## Measuring the gender pay gap

The raw gender pay gap

Part II of the report provides a global analysis of the gender pay gap. The UN's SDG target 8.5, which sets out the aim to achieve by 2030 "equal pay for work of equal value", proposes as a main indicator to compare "average hourly earnings of female and male employees" (indicator 8.5.1).

Using average (mean) hourly wages to estimate the gender pay gap, as suggested in the UN's SDG indicator 8.5.1, the report finds that – based on data for 73 countries that cover about 80 per cent of the world's employees – the (weighted) global gender pay gap stands at around 16 per cent. There are wide variations among countries, with the mean hourly gender pay gap ranging from 34 per cent in Pakistan to –10.3 per cent in the Philippines (meaning that in this country, women earn on average 10.3 per cent more than men).

However, there are different possible ways to measure raw gender pay gaps. The two measures that are most commonly used are the "mean gender pay gap" (as in the estimate above) and the "median gender pay gap"; the latter compares the value located in the middle of the women's wage distribution with the value located in the middle of the men's wage distribution. Further differences arise when comparisons are made using monthly wages rather than hourly wages. Using these four different combinations (mean/median and hourly/monthly), the report finds that the weighted global estimates range from about 16 per cent to 22 per cent, depending on which measure is used. The gender pay gap of 22 per cent is obtained when using median monthly wages.

#### A complementary measure: The factor-weighted gender pay gap

The report finds that in most countries – but particularly where the participation of women in wage employment is low – women tend to have different characteristics than men and tend to cluster around specific hourly wages. In a wage distribution characterized by such irregularities, gender pay gap estimates based on a single number, the "mean" or the "median", can be difficult to interpret and may provide information that is of limited use to policy-makers, as they are completely dominated and distorted by this clustering.

The report thus proposes a methodology to generate complementary estimates of the gender pay gap that remove some of the major "composition effects" arising from the existence of these clusters (for example, when women tend to cluster in the public sector or in jobs requiring high levels of education). In essence, this methodology groups women and men wage employees into more homogeneous subgroups, and then estimates the gender pay gap in each subgroup. The methodology then constructs a weighted average of all the subgroups' estimated gender pay gaps, with weights reflecting the size of each subgroup in the total population of wage employees. Using this method, the mean hourly gender pay gap becomes positive in all but two countries, and the mean hourly global gender pay gap increases from about 16 per cent to 19 per cent.

### What are the factors that lie behind the gender pay gap?

Estimating the gender pay gap across the hourly wage distribution

The report estimates the hourly gender pay gap at different points in the wage distribution. Among high-income countries, the widening of the gender pay gap at the upper end of the distribution is striking. In contrast, in low- and middle-income countries it is at the low end of the wage distribution – where women are proportionally over-represented – that the gender pay gap is wider. However, there is a common pattern in labour markets across the world: as we move from lower to higher hourly wages the proportion of women declines, in some cases sharply.

What part of the gender pay gap can be "explained" by differences in the attributes and characteristics of women and men in paid employment?

Are men paid more than women because they are better educated, or because they have other observable characteristics or attributes that are associated with higher labour productivity? The report uses methods pioneered by Fortin, Lemieux and Firpo (2011) to decompose the gender pay gap (at different parts of the distribution and overall) into a component that can be "explained" by differences in the labour market attributes of women and men – and here the report singles out in particular the role of education – and a component that is "unexplained" by such characteristics. By labour market attributes, we mean the so-called human capital characteristics (typically age, experience and education); the characteristics that define the jobs held by individuals (for example, occupational category or working time); and the characteristics that describe the workplace where production takes place (industrial sector, geographical location, and so on).

Although there are large variations across countries, the report finds that, on average, education and other labour market attributes explain relatively little of the gender pay gap at different points of the wage distribution. The unexplained part of the gender pay gap generally dominates almost all countries, irrespective of income group.

In high-income countries, education contributes on average less than 1 percentage point of the gender pay gap, through it contributes much more in some individual countries. This general finding is not surprising, since in high-income countries the educational attainment of women in paid employment is in many instances higher than that of men; lower educational attainments thus cannot be an explanation for the gender pay gap. More surprisingly, perhaps, lower education is not so prominent a factor explaining the gender pay gap in a majority of low- and middle-income countries either, even though women generally have lower educational attainments than men in many of these countries. In practice, however, a large share of women with low levels of education stay out of the labour market or work as own-account workers rather than paid employees. In fact, women in paid employment tend to be more highly educated than men within similar occupational groups.

Understanding what lies behind the "unexplained" part of the gender pay gap: The undervaluation of women's work and the motherhood pay gap

What lies behind the unexplained part of the gender pay gap? One part of the answer relates to lower wages paid to women for work of equal value. Providing some perspective on this question, though not a full answer, the report looks at occupational categories and shows that in many countries women are more highly educated than men within the same occupational categories but nonetheless earn lower wages. This illustrates the fact that women tend to have lower wage returns for their education than men, even when they work in the same occupational category.

Another part of the answer relates to the undervaluation of women's work in highly feminized occupations and enterprises. The report shows for a selection of countries that wages of women and men with similar levels of education tend to be lower in highly feminized occupations than in other occupations. Further analysis – using data from the European Structure of Earnings Survey (SES) – also shows that wages tend to be lower in enterprises that are highly feminized than in enterprises that are otherwise similar in terms of number of employees, economic sector, ownership and type of collective pay agreement.

Finally, the report also looks at the "motherhood pay gap", defined as the pay gap between mothers and non-mothers. The report estimates that the motherhood pay gap ranges from 1 per cent or less in Canada, Mongolia or South Africa to as much as 30 per cent in Turkey. Lower wages for mothers may be related to a host of factors, including labour market interruptions or reduction in working time; employment in more family-friendly jobs, which are lower paying; or stereotypical hiring and promotion decisions at enterprise level which penalize the careers of mothers.

#### Part III. Which way forward?

What can be done to progressively reduce gender pay gaps across the world? While there is a range of policies and measures that can be taken to reduce these gaps, the answer to this question will necessarily be country-specific since the factors that drive and explain gender pay gaps vary from country to country and in different parts of the distribution.

#### Better data

To start with, the report emphasizes the importance of good data and highlights the need in many countries for better data on the distribution of wages. In particular, low- and middle-income countries have very limited statistics on the average wages of women and men. One feasible option would be to review and modify existing surveys by introducing, for instance, modules specifically relating to gender pay gaps into cross-sectional surveys. In better-resourced countries, panel data can go some way towards solving certain of the issues related to the interpretation of life-cycle events.

### The need to move beyond simple measures of the gender pay gap

The report also recommends going beyond summary measures to inspect in more detail the respective wage structures of women and men, analyse gender pay gaps in more homogeneous subgroups of wage earners, and calculate factor-weighted gender pay gaps which control for some of the major composition effects. This is especially useful where women's labour force participation is low and where women cluster in particular sectors and occupations.

# Finding out where in the wage distribution the gender pay gap is largest, and reviewing the effectiveness of existing labour market institutions

An important question is whether the gender pay gap in a particular country is mostly driven by pay gaps at the bottom, in the middle or at the top of the wage distribution. This has important policy implications. For example, whereas a well-designed minimum wage with broad legal coverage could reduce the gender pay gap at lower wage levels, collective agreements that are extended to vulnerable groups of workers and include provisions on gender pay gaps or pay transparency could have the same effect higher up in the wage distribution. Finally, policies and measures that promote greater representation of women in senior and highly paid positions could have a positive effect at the top levels. Measures that promote the formalization of the informal economy can also greatly benefit women, bringing them under the umbrella of legal and effective protection and empowering them to better defend their interests.

## Tackling the "explained" part of the gender pay gap, including through education, changing stereotypes, and combating employer prejudice in hiring and promotion decisions

The decomposition analysis in the report shows that part of the gender pay gap can be explained by differences in the labour market attributes of women and men, including their levels of education, and the fact that they tend to work in occupations or industries that pay less. The importance of these factors varies from country to country. Where women in paid employment have lower educational achievements than men, educational policies targeting enrolment rates among girls may contribute to reducing the gender pay gap in the future. Reducing polarization and occupational segregation may require changing perceptions and stereotypes, for example to attract more women into the areas of science, technology, engineering and mathematics (STEM), which offer betterpaid employment opportunities, or to combat employer prejudice in hiring and/ or promotion decisions.

#### Tackling the "unexplained" portion of the gender pay gap

The report finds that in many countries the largest part of the gender pay gap is unexplained by differences in attributes and characteristics of women and men. A growing number of countries are thus focusing attention on national legislation

which prohibits pay discrimination against women and measures that promote equal pay between women and men. However, there is a long way to go. While 40 per cent of all countries have adopted the full principle of "equal pay for work of equal value", the remaining countries focus instead on the narrower principle of "equal pay for equal work". In addition, some countries have taken steps to promote pay transparency to expose differentials between women and men, requiring (usually large) enterprises to disclose the earnings of their employees. In recent years, a number of countries have embraced proactive pay equity laws, which require employers to regularly examine their compensation practices, assess the gender pay gaps and take action to eliminate the portion of the gap due to discrimination in pay.

Countries should also look into possible ways to address the undervaluing of women's work in highly feminized occupations and industries, including by raising wages in the latter. Eliminating this bias is not only a way to narrow the gender pay gap directly, it is also a condition to reducing occupational segregation, for example by attracting more men into the education and health sectors.

What can be done to reduce the motherhood pay gap? More equitable sharing of family duties between women and men, as well as adequate childcare and eldercare services, would in many instances lead to women making different occupational choices. Adequate company policies on flexible working-time arrangements would also help. The lack of programmes supporting women's return to work after childbirth also contributes to the wage penalty that women face when resuming work after a prolonged period of absence from the labour market.

#### Time to accelerate progress in closing the gender pay gap

Never before has awareness of and commitment to gender equality at work, as well as in society, been so prominent in national and international public debates. The UN's SDG 8 sets the target of "achiev[ing] full and productive employment and decent work for all women and men, including for young people and persons with disabilities and equal pay for work of equal value" by 2030. To support this Goal, the Equal Pay International Coalition (EPIC), which was launched in September 2017 as a multi-stakeholder initiative that includes the ILO, UN Women and the OECD, seeks to achieve equal pay for women and men. There is an international momentum in favour of concrete and coordinated action to tackle gender inequality.

In practice, however, progress in reducing gender pay gaps has been too slow. More vigorous and decisive action is needed. In addition to the specific measures discussed above, we set out a few more general considerations. First, accelerating progress will require both political commitment and social transformation. While public policies to enhance education, labour and social protection, and to improve social infrastructure, are necessary to close the gender pay gap, their effectiveness depends at least in part on shifting social norms and gender stereotypes. Second, comprehensive, cross-cutting approaches to gender equality are necessary to combat the gender pay gap. Indeed, not only are gender pay gaps rooted in well-entrenched stereotypes, they also represent a summary indicator

that captures many disadvantages faced by girls and women both within and outside the labour market. Hence measures to reduce or eliminate gender pay gaps should be embedded in a broader overall gender equality policy. Third, we emphasize once again that the appropriate mix of policies in any national context will depend on that particular country's circumstances, and that robust analytical work is needed to identify the largest contributory factors – and hence the most effective remedies – in different country contexts.