Women in Work
Index 2019

Turning policies into effective action
March 2019
International Women’s Day 2019 marks yet another year of continued steps to improve the representation and welfare of women in the world of work. From the first world leader taking maternity leave, to the overwhelming response to #metoo, working women everywhere are increasingly asserting their right to be respected and treated fairly at work.

However, women in the Organisation for Economic Co-operation and Development (OECD) still face significant challenges and inequalities in the workplace. The pay gap persists and women are still under-represented in corporate leadership, with women accounting for only one-in-five of board seats in the largest publicly-listed companies in the OECD.

Clearly, there is still a long way to go before we can achieve a gender-equal workplace. The Women in Work Index shows that while progress continues to be made across 33 OECD countries, the pace of progress is slow. But there is a huge prize at stake from accelerating progress: Improving female participation in work across the OECD could boost OECD GDP by US$6 trillion, while closing the gender pay gap could boost GDP by US$2 trillion.

Iceland and Sweden continue to occupy the top two positions on the Index while New Zealand moves up one place to round off the top three. The UK made some small gains, moving from 14th to 13th position this year, but its progress is held back by a stubbornly persistent gender pay gap, which will require concerted government policy and business action to address.

We also find significant variation in regional performance on the Index. Faster growing regions such as London, tend to have made the biggest improvements in their Index scores since 2010. Scotland, Northern Ireland and Wales outperformed most English regions, likely due to the higher share of public sector employment in these regions that tend to have smaller pay gaps and better female representation at senior levels. These trends suggest that underlying structural factors and the make-up of each region’s economic activity can influence female economic opportunity.

While the focus of the Index is on the OECD, we should not underestimate the contribution that China and India – the two most populous nations in the world – have made in economically empowering millions of women. However, despite considerable progress being made in both countries, there is room for further improvement in female employment prospects. Had they both been included in the Index, China would have placed in between Slovakia (26th place) and Japan (27th place), while India would have placed last, after Korea (33rd place).

These challenges will take time to address, but both economic powerhouses could reap significant gains from promoting gender equality. Closing the gender pay gap could result in gains of more than US$2 trillion, while improving female participation in the workforce could result in gains of US$7.5 trillion, more than the gains to the OECD combined.

While governments are responsible for shaping a policy environment that supports gender equality and diversity in the workplace, it is up to organisations and employers to put this into practice. However, real and effective change remains elusive for many. In keeping with the theme of this year’s report – Turning Policies into Effective Action – we discuss how effective change within organisations requires strategic clarity, accountability, measurability and transparency.

Please do get in touch if you have further questions or comments about this study, or to discuss how we can help your organisation address these issues.

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Boost to OECD GDP from increasing female employment rates to match Sweden’s  
Boost to OECD female earnings from closing the gender pay gap
Executive summary

“
The world will never realise 100% of its goals if 50% of its people cannot realise their full potential. When we unleash the power of women, we can secure the future for all.”

Ban Ki Moon
Former UN Director-General
Statement published for International Women’s Day 2015
The OECD continues to make gradual progress to improve female economic empowerment, but there is still a long way to go to achieve a gender-equal workplace

The seventh update of the Women in Work Index provides our assessment of female economic empowerment in 2017 across 33 OECD countries. The Index is a weighted average of five indicators that reflect female participation in the labour market and equality in the workplace (see technical appendix for more details).

Country rankings and trends
From 2016 to 2017, on average, the OECD achieved small gains to female economic empowerment, mainly the result of reducing the average gender pay gap and female unemployment rate, while performance on all other indicators remained broadly constant.

- Iceland and Sweden remain the top 2 performing OECD countries, while New Zealand joins the top three ranks for the first time since this Index was first published. Norway slips to 5th place, having been overtaken by Slovenia.
- Ireland and the Netherlands improved their ranks since last year owing to positive improvements across most of the indicators in the Index, and in particular the reduction in the female unemployment rate in the Netherlands.
- Chile and Hungary both saw a decline in their absolute performance compared to last year due to an increase in the gender pay gap. Switzerland’s fall in performance on the other hand was due to the widening gender gap in labour force participation and an increase in female unemployment.

Over the longer term there have been significant movements in country rankings, largely due to changes in the unemployment rate and the gender gap in labour force participation.

- Since 2000, Luxembourg and Poland have made substantial improvements on the Index, as a result of a significant narrowing of the gender pay gap and a large reduction in the female unemployment rate, respectively.
- On the other hand, Portugal, the United States and Austria have all fallen significantly on the rankings since 2000. Portugal experienced a substantial rise in the pay gap while the US and Austria experienced a decline in female labour force participation and full-time employment, respectively.

Potential long-term economic gains
- Significant economic benefits can be reaped in the long-term from increasing the female employment rate to match that of Sweden. The GDP gains across the OECD could be over US$6 trillion.
- Across the OECD, fully closing the gender pay gap could increase total female earnings by US$2 trillion.

Boost to OECD GDP from increasing female employment rates to match Sweden’s

$6tn

Source: PwC analysis, all data sources are listed in the appendix.
The UK has improved slightly, rising from 14th to 13th position on the Index, but its performance continues to be held back by a persistent gender pay gap

UK Ranking #13

The UK rose one place from 14th to 13th position on the Index, performing above the OECD average.

- The UK continues on a path of gradual improvement:
  - The UK has charted improvements across all five indicators of the Index. However, the UK’s rank increased by only one position due to significant improvements in female employment prospects elsewhere in the OECD.
  - In 2000, UK stood at the 17th position, demonstrating slow but steady progress over the years.
  - Between 2000 and 2011, the UK had an Index score below the OECD average. The UK began to outperform the OECD average from 2012 onwards, reaching 13th place in 2017.
  - The UK performs well when compared to other G7 economies, being second only to Canada overall. It performs above the G7 average with respect to all indicators except the female full-time employment rate, on which the UK ranks lowest in the G7.

Comparison against the G7

Source: PwC analysis.
Scotland tops the UK regional index with the South West and Wales in 2nd and 3rd place, respectively

Regional trends

We assess how different UK regions would have performed by estimating the Women in Work Index for each of these regions, applying the same methodology as with our main Index calculations for the OECD but using the UK average as a benchmark.

- The top three performing regions are Scotland, the South West and Wales. These regions have large hospitality sectors and a high concentration of public sector jobs, both of which tend to have more balanced gender representation at all levels and hence smaller pay gaps.
- Yorkshire and the Humber, the East Midlands and the West Midlands are the three worst performing regions. In the Midlands this is driven by the relatively higher share of traditionally male-dominated sectors such as manufacturing compared to the UK average. These sectors also tend to have larger pay gaps.
- From 2016 to 2017, Northern Ireland saw the largest improvement in its rank, moving up from 8th position to 4th. The East Midlands saw the largest deterioration in its rank, falling 5 places from 6th to 11th position.
- Looking at the period after the financial crisis – Wales made the most significant progress, moving up four places since 2010 from 7th position to 3rd. This is due to the increase in female labour force participation and a reduction in the pay gap. The East Midlands fell by six places over the same period from 5th to 11th, as it was outpaced by improvements observed in other regions.
- Our analysis also finds a small positive correlation between the growth in regional gross value added (GVA) and changes in the Index score between 2010 and 2017, which may suggest that greater female economic participation boosts growth.

UK regional rankings 2017

<table>
<thead>
<tr>
<th>Region</th>
<th>2010</th>
<th>Change</th>
<th>2017</th>
</tr>
</thead>
<tbody>
<tr>
<td>Scotland</td>
<td>#1</td>
<td>0</td>
<td>#1</td>
</tr>
<tr>
<td>South West</td>
<td>#2</td>
<td>0</td>
<td>#2</td>
</tr>
<tr>
<td>Wales</td>
<td>#3</td>
<td>0</td>
<td>#3</td>
</tr>
<tr>
<td>Northern Ireland</td>
<td>#4</td>
<td>+4</td>
<td>#5</td>
</tr>
<tr>
<td>South East</td>
<td>#5</td>
<td>-1</td>
<td>#6</td>
</tr>
<tr>
<td>East</td>
<td>#6</td>
<td>+2</td>
<td>#7</td>
</tr>
<tr>
<td>West Midlands</td>
<td>#7</td>
<td>-6</td>
<td>#8</td>
</tr>
<tr>
<td>East Midlands</td>
<td>#8</td>
<td>-2</td>
<td>#9</td>
</tr>
<tr>
<td>Yorkshire &amp; Humber</td>
<td>#9</td>
<td>-1</td>
<td>#10</td>
</tr>
<tr>
<td>East Midlands</td>
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</tr>
<tr>
<td>West Midlands</td>
<td>#11</td>
<td>-1</td>
<td>#12</td>
</tr>
</tbody>
</table>

Source: PwC analysis, all data sources are listed in the appendix.
China and India could reap significant gains from promoting gender equality and female participation in the workforce

This year we assess how two of the world’s largest countries by population – China and India – would have fared had they been included in this year’s Index. In recent decades, rapid economic growth in both these countries has led to significant improvements in female economic empowerment. Nonetheless, our analysis suggests that the further efforts to promote gender equality and female participation in the workforce could generate significant gains for both economic powerhouses.

**China**

- If included in our Index, China would place in between Slovakia (26th) and Japan (27th). This is largely due to China’s gender pay gap of 25% which is substantially higher than the OECD average. However, China stands out for having a relatively high proportion of working women in full-time employment, at 89%, which is 14 percentage points higher than the OECD average.
- Closing the gender pay gap in China would generate a 34% increase in female earnings, equivalent to a $2 trillion boost to female earnings.
- Increasing female employment to match Sweden’s would increase Chinese GDP by $497 billion. However, as China’s female employment rate is already close to that of our benchmark country, Sweden (66% in China and 69% in Sweden), the percentage increase in GDP from increasing the female employment rate to that of Sweden is relatively small, approximately 2% of China’s GDP.

**India**

- If included in our Index, India would rank at the bottom of our index, which is not surprising given its relatively lower state of economic development compared to OECD countries.
- Like China, India faces a significant challenge with a fairly large gender pay gap of 36%, significantly higher than any of the other countries included in our Index. Therefore closing the gender pay gap would generate a 56% increase in female earnings, equivalent to a $245 billion boost to female earnings.
- India struggles with low levels of female participation in the workforce due in part to prevailing cultural norms about the role of women in society. The low rate of female employment in India means that increasing female employment rates to the same level as Sweden would generate a $7 trillion boost to GDP, approximately 79% of India’s GDP.

Source: PwC analysis, all data sources listed in the appendix.
Turning policies into effective change within organisations requires strategic clarity, accountability, measurability and transparency

While governments are responsible for shaping a policy environment that supports gender equality and diversity in the workplace, it is up to organisations and employers to put this into practice.

Organisations globally are investing a significant amount of effort and resources in developing diversity policies and embedding these practices in their organisations. However, the results are not always matched by efforts. Our work with organisations that are making the most progress highlights the importance of ensuring that diversity and inclusion (D&I) get the same direction, measurement and accountability that would be applied to any other strategic priority. In practice, this comes down to five key foundations for effective change:

- **Align diversity with your business strategy**
  Articulate how D&I can support business priorities to build a strategy that resonates with all stakeholders, including customers, suppliers, investors and wider society.

- **Drive accountability from the top**
  Ensure D&I is recognised as a business priority by making people accountable for making it happen by including D&I metrics in individual performance objectives and incentives.

- **Set realistic objectives and a plan to achieve them**
  Once D&I objectives are clearly identified, build an action plan based on them, and include consideration of how key HR processes (such as performance management) will support these, focusing on how they will be achieved and measured.

- **Use data: What gets measured gets done**
  Use data and analytics tools to measure progress and the return on investment, target problem areas for intervention and drive accountability.

- **Be honest: Tell it as it is**
  Clear and honest communication on your progress and plans for accelerating progress can help demonstrate your commitment to D&I to your staff and external stakeholders.
2

Key Index results
The OECD continues to make slow but gradual improvements in female economic empowerment over the past year, mainly driven by a fall in the gender pay gap and the female unemployment rate.

Iceland remains the top performer in our Index, improving on its score from 2016 due to a reduction in the gap between the male and female labour force participation rate and the female unemployment rate.

Norway dropped from the 3rd position to the 5th due to a fall in its female labour force participation rate and outpaced by bigger improvements made in New Zealand Slovenia.

The UK rose by one place to the 13th position, due to absolute improvements across all five indicators. However, the UK’s rank increased by only one position due to significant improvements in female employment prospects elsewhere in the OECD.

Ireland experienced the largest improvement in its ranking across the OECD – Rising by seven places and moving above the OECD average. This is driven by significant gains in female labour force participation rate.

Austria fell from the 22nd position to the 25th due to a widening of the gap in participation rates and as it was outpaced by improvements in female employment opportunities elsewhere in the OECD.

Mexico rose by one place and moved away from its previous position at the bottom of the Index bottom, mainly driven by a 5 percentage point decrease in gender pay gap, the largest decline across the OECD.
Since 2000, Luxembourg has made the largest improvement in its ranking, moving up 17 places from 23rd to 6th place.
Potential economic gains from improving female economic empowerment
Increasing the number of women in work could increase GDP across the OECD by over US$6 trillion

Our analysis provides estimates of the broad order of magnitude of potential gains for each country from increasing female employment rates to match those of Sweden – a consistently top performer in our Index with a female employment rate of 69%.

- The potential long-term economic gains across the OECD from an increase in women in employment amount to a GDP increase of over US$6 trillion.

- In absolute terms, the US is expected to gain the most, as much as $1.8 trillion, nearly three times as much as the next biggest winner, Italy.

- Countries with relatively low female employment rates such as Greece, Mexico and Italy are likely to accrue the largest potential gains in percentage terms. Increasing the rate of female employment to those in Sweden could generate GDP increases of c.30% for these countries.

The economic benefit to the UK could be significant:

- Increasing the female employment rate from 57% to that of Sweden (69%) results in gains of around 9% of UK GDP, or US$250 billion (or £178 billion).

Countries that exhibit a female employment rate close to Sweden’s female employment rates are likely to generate a smaller boost in GDP; this includes the other Nordic countries like Norway and Finland, as well as Estonia.

Source: PwC analysis.
Closing the gender pay gap could boost female earnings across the OECD by over US$2 trillion, an increase of 22%

We consider the potential gains from closing the pay gap between men and women across the OECD.

Closing the pay gap by increasing female average wages to match their male counterparts would generate a substantial increase in female earnings.

- The gains to female labour earnings from closing the gender pay gap could be over US$2 trillion across the OECD.
- Of the OECD countries, the United States is anticipated to achieve the most gains in absolute terms from closing the pay gap, with total female earnings increasing by $816 billion.
- The largest gains in percentage terms could be found for countries with the largest gender pay gaps, notably Korea, Estonia and Japan. The increase in female labour earnings from closing the pay gap in these countries could range from one-quarter to two-thirds of the current value. Korea’s female earnings could see a whopping increase of 53% from pay parity across males and females.
- Closing the gender pay gap in the UK would increase female earnings by £92 billion (US$114 billion), implying an increase of 20% of its current value.

In our analysis, we assume that the counteracting effects of the wage and employment effects broadly cancel out, meaning that an increase in wages does not lead to a net employment effect. This takes into account the counteracting effects of labour supply and demand elasticities: an increase in wages makes it more expensive for employers to hire more workers, however higher earnings also incentivise potential workers to seek employment.

Source: PwC analysis.
UK and regional performance
The UK continues to outperform the OECD, but progress remains slow

UK performance 2016-2017

- From 2016 to 2017, the UK rose one place from 14th to 13th position on the Index. Over this period, the UK saw sizeable improvements in the female labour force participation rate, the female full-time employment rate and reducing the female unemployment rate.

- One of the key areas holding back UK progress is the persistent gender pay gap, which barely budged between 2016 and 2017. In comparison, Luxembourg reduced its gender pay gap by 1.3 percentage points, making it the country with the lowest gender pay gap in the OECD. One policy that Luxembourg has introduced to improve female employment prospects and encourage gender parity in the workplace is the appointment of an Equality Delegate within each staff delegation, which is mandatory for organisations with 15 or more employees. The role of the Equality Delegate is to ensure the equal treatment of male and female employees on access to employment, training and promotion and pay and working conditions.

- The UK performs well when compared to other G7 economies, being only second to Canada. This is due to the fact that the UK performs better than the G7 average with regard to the female labour force participation rate, the participation rate gap, the gender pay gap and the female unemployment rate, however it lags behind Canada on all indicators except the female unemployment rate and the gender pay gap.

Long term trends: UK performance since 2000

- In 2000, UK stood at the 17th position, demonstrating slow progress over the years.

- Since 2000, the UK has improved its performance across all five indicators, with the largest improvement made in reducing the gender pay gap and the gender gap in labour force participation, which have fallen by 10 and 5 percentage points respectively.

- In 2000, the UK performed above the OECD average for the gender pay gap and the female labour force participation rate, and below the OECD average for the labour force participation rate gap, the female unemployment rate and the female full-time rate. This remains the same in 2017, further demonstrating that the UK’s progress on female economic empowerment has been slow over the years compared with other OECD countries.

Between 2000 and 2011, the UK had an Index score below the OECD average. The UK began to outperform the OECD average from 2012 onwards, reaching 13th place in 2017.

- Over the long term, the UK has been a consistently strong performer on the female labour force participation rate, staying at least 3 percentage points above the OECD average since 2000.

- In contrast, an area of weakness for the UK is the female full-time employment rate, on which it has consistently remained below the OECD average since 2000 by more than 10 percentage points.
In recent years, there have been a number of government policies aimed at fostering a more gender-equal workplace, and businesses play a key role putting these policies into action – we explore this in more detail in Section 6.

<table>
<thead>
<tr>
<th>Gender pay gap reporting</th>
<th>Shared parental leave</th>
<th>Women in Finance Charter</th>
<th>Hampton-Alexander Review</th>
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<tbody>
<tr>
<td>March 2019 marks the end of the first year when UK companies (excluding Northern Ireland) with more than 250 employees have been required to publish information on their gender pay gap.</td>
<td>From April 2015, parents in the UK can share parental leave following the birth or adoption of a child. The scheme allows both new parents to share up to 50 weeks of leave and 37 weeks of statutory pay between them, in place of maternity leave and pay. However, take-up remains low, with only 9,200, or 1% of all eligible parents opting to take it up in the fiscal year to March 2018. One of the key reasons for this is the significant disparity in male and female pay, which means that the opportunity cost for men taking time out of work remains higher than for women. One possible way of addressing this is by introducing “use-it-or-lose-it” quotas for fathers in order to encourage take up. Similar policies introduced in Sweden and Norway have increased male enrolment rates.</td>
<td>The financial services sector in the UK faces serious diversity challenges, including the lack of women in leadership and leadership pipelines, and is an industry sector with one of the largest pay gaps in the UK. The Women in Finance Charter, launched by the UK Government in March 2016 and spearheaded by HM Treasury, seeks to address the gender balance in the financial services sector. The Charter commits firms to supporting the progression of women into senior positions and middle management, implementing targets and appropriate strategies to achieve this, and requires firms to publicly report on progress. The first annual review of the Charter, in March 2018, showed that 85% of signatories have either met their targets or are on track to meet them, but progress remains slow.</td>
<td>The Hampton-Alexander Review is an independent, business-led initiative supported by Government, which aims to improve further the number of women in senior leadership positions and on the boards of FTSE 350 companies. It has a stretching target to achieve female representation of 33% on FTSE 350 boards by 2020. The most recent review, completed in November 2018 showed that although more women are ascending onto the boards of the FTSE350 and that only a small minority of companies have an all-male board, the number of female chief executives had also fallen from 15 to 12 during the year. UK companies still have a long way to go: the review showed that in 2018, nearly two-thirds of board appointees within the FTSE100 were men, and unless the appointment rate for women is increased, it is likely that the 33% target by 2020 will be missed.</td>
</tr>
</tbody>
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1. This is from ONS reported data which differs from OECD reported data as the OECD only considers full-time employees and the self-employed, therefore part-time workers are not included.
All regions made absolute improvements in female economic empowerment compared with 2016, with Scotland, the South West and Wales taking the podium positions.

We assess how different UK regions would have performed by estimating the Women in Work Index for each of these regions, applying the same methodology as with our main Index calculations for the OECD but using the UK average as a benchmark.

- The top three performing regions are Scotland, the South West and Wales. This is unchanged from last year, had a UK regional index been constructed using 2016 data.
- Scotland tops the Index with strong performance across the board for its strong all-round performance across the five indicators that make up the Index.
- The South West comes second due to the highest female labour force participation rate (and consequently a small gap between male and female labour force participation), and a low female unemployment rate. Its gains on these indicators outweigh its poor performance on female full-time employment rate where it ranks the lowest of all the regions.
- Wales comes third as it has the smallest gap in male and female labour force participation rates and the second lowest gender pay gap among all the regions.
- The West Midlands ranks lowest on the Index due to poor female labour force participation, a large gap between male and female labour force participation and a high female unemployment rate.

<table>
<thead>
<tr>
<th>Women in Work Index score</th>
<th>Region</th>
<th>Score</th>
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<tbody>
<tr>
<td>1</td>
<td>Scotland</td>
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</tr>
<tr>
<td>2</td>
<td>South West</td>
<td>35.8</td>
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<tr>
<td>3</td>
<td>Wales</td>
<td>35.1</td>
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<tr>
<td>4</td>
<td>Northern Ireland</td>
<td>34.9</td>
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<tr>
<td>5</td>
<td>South East</td>
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<td>8</td>
<td>North East</td>
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<tr>
<td>9</td>
<td>London</td>
<td>27.8</td>
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<tr>
<td>10</td>
<td>Yorkshire and The Humber</td>
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<td>11</td>
<td>East Midlands</td>
<td>27.2</td>
</tr>
<tr>
<td>12</td>
<td>West Midlands</td>
<td>25.2</td>
</tr>
</tbody>
</table>

Source: PwC analysis.
Long-run trends in the Index suggest that economic growth tends to be associated with improvements in Index performance, most notably in London

There appears to be a small positive correlation between the growth in regional gross value added (GVA) and changes in the Index score between 2010 and 2017, suggesting that economic growth tends to be associated with improvements in female economic participation.

The association between economic growth and the Index score may be due to the growth in economic production capacity as more women enter the workforce (Klasen, 1999). It may be the case that causality can also run in the opposite direction, i.e. economic growth can boost economic and job opportunities for women. However, the evidence for this is mixed (Luci, 2009). This suggests that growth-enhancing policies are insufficient to promote gender equality in labour markets on their own, and must be considered alongside policies that promote female participation and equality at work.

• London is a middling performer, at 9th place. However, it was the fastest growing region in the UK since 2010. This period coincided with London moving up 3 places as a result of achieving the biggest regional improvement on the Index (in percentage terms). This suggests that working women may have played a role in driving London’s economic recovery since the crisis. However, its performance is held back by the pay gap which has barely budged since 2010.

• The West Midlands, East of England and the South East have also experienced a significant growth in regional GVA and their Index score since 2010.

• In contrast, slower growing regions such as Yorkshire and the South West have seen smaller improvements on the Index.

Over the long-term:

• Wales is notable for its significant upward movement in the ranks, having moved up four places since 2010. This is due to gains made across all indicators included in the Index. Most notably, its female labour force participation rate rose by five percentage points, which has helped close the gap in labour force participation between men and women.

• The East Midlands’ performance has deteriorated since 2010, dropping six places between 2010 and 2017. While the region achieved modest gains in most indicators over this period, the female full-time employment rate declined by two percentage points. The East Midlands was one of only two regions that experienced a significant reduction on this indicator.

Source: PwC analysis.

Source: PwC analysis.
The highest performing regions – Scotland, Northern Ireland, Wales and the South West have greater concentration of public sector employment, which tend to have more balanced gender representation at all levels and smaller pay gaps.

- **No. 1 – Scotland:** In 2000 Scotland had one of the highest female unemployment rates in the UK. Since then it has declined from 6% to 4% in 2017, making Scotland one of the regions with the lowest female unemployment rates.

- **No. 2 – South West:** Since 2010, the female labour force participation rate has improved by 5 percentage points, which has helped close the gap with male labour force participation.

- **No. 3 – Wales:** Since 2010, the female labour force participation rate has increased by 5 percentage points and the female full-time employment rate has increased by 2 percentage points, both of which are above average improvements for UK regions.

- **No. 4 – Northern Ireland:** Since 2000 Northern Ireland has made the most progress in closing its gender pay gap, reducing it by 13 percentage points. The region now has the smallest gender pay gap as well as the lowest female unemployment rate.

- **No. 5 – South East:** Progress towards closing the gender pay gap in the South East was slower to take off than elsewhere in the UK with a limited reduction seen between 2000 and 2010. However, between 2010 and 2017 the gender pay gap has declined by 5 percentage points, the largest reduction of any region over this period.

- **No. 6 – North West:** Steady progress has been made on all indicators since 2000, most notably the gender pay gap which has closed by 12 percentage points. This impressive improvement has taken the North West from having one of the largest gender pay gaps in the UK to one of the smallest.

- **No. 7 East:** The region has achieved an above average improvement in its female full-time employment rate since 2010. This has been accompanied by an above average reduction in the female unemployment rate.

- **No. 8 – North East:** The North East has seen the largest reduction in the gap in male and female labour force participation rates since 2000, falling from 11% to 8%. This is in part due to the region experiencing one of the largest increases in female labour force participation rates over this period.

- **No. 9 London:** London has consistently been the region with the highest female full-time employment rate. Since 2010, the female labour force participation rate has increased by 6 percentage points, which may have been the result of its relatively strong economic growth and the creation of job opportunities.

- **No. 10 – Yorkshire and the Humber:** The region has achieved improvements on almost all indicators since 2000. The gender pay gap has experienced the most progress, declining by 9 percentage points over this period.

- **No. 11 – East Midlands:** The East Midlands has made modest improvements across almost all indicators since 2000, but its gains have been outpaced by improvements in other regions since 2010, meaning that the region now lags behind all regions except for the West Midlands. However, the female unemployment rate has fallen to pre-2000 levels. The region has also achieved an above average reduction in the gender pay gap since 2010.

- **No. 12 – West Midlands:** The region has made modest progress on all indicators since 2010. Most significant is the above average improvement in the female full-time employment rate.

Source: PwC analysis, Office for National Statistics.
Special focus – China and India
China and India have made significant improvements in female economic empowerment, however there is room for further progress to promote gender equality and economic opportunity for women.

In this edition of Women in Work, we assess how two of the world’s most populous countries would have performed had they been included in the Index. While these countries are not formally part of the OECD, both countries are economic powerhouses in their own right. Between 2000 and 2017, these countries have added 167 million people to the global workforce, including 26 million women. Today, these countries account for 35% of the global female workforce.1

1. The combined figures for India and China do not add to 35% due to rounding. China makes up 25.3% of the global female labour force and India 9.4%, this gives 34.7% overall.

Source: PwC analysis, World Bank, ILO
China would rank in between Slovakia (26th) and Japan (27th) on our Index, highlighting that there is significant scope for further improvement in female employment prospects.

The world’s second largest economy, China has experienced cumulative GDP growth of over 42% over the five years from 2012-2017, which has increased economic prospects for both genders.¹

Over this period, China has continued to have one of the highest female labour force participation rates (69%) and female full-time employment rates (89%) in the world, especially in comparison to other large economies in the region. China’s female labour force participation rate and full-time employment rate are around three times larger than those of India.

There have been gains for women in educational attainment with both UN and Chinese official statistics showing that there are now more Chinese women than men receiving a university education.²

If included in our Index, how would China perform?

- China’s significant economic advancement has generated economic opportunities for women, as highlighted by its high levels of female employment rates.
- Women in China still face challenges in the workplace. It has a large gender pay gap (25%). However, China stands out for having relatively high levels of female participation in work and a high proportion of women in full-time employment at 89% (which compares favourably to the OECD) and low levels of unemployment (4%).

How much are the gains to China from improving female employment?

- China’s female employment rate is very similar to that of our benchmark country, Sweden, (66% and 69% respectively), and therefore the percentage increase in GDP from increasing the female employment rate to that of Sweden is relatively small, approximately 2% of China’s 2017 GDP.
- However, the large number of women of working age means that the boost to GDP from increasing female employment rates is significant in absolute terms. We estimate that increasing female employment to match Sweden’s would increase Chinese GDP by $497 billion.

How much are the gains to China from closing the gender pay gap?

- At 25%, China’s gender pay gap is higher than the OECD average.
- Therefore there is likely to be a substantial increase to female earnings from closing the gender pay gap. Closing the gender pay gap would generate a 34% increase in female earnings, equivalent to a $2 trillion boost to female earnings.
- The increase to female earnings for China from closing the gender pay gap is larger than for any country included in the Index, due to its large pay gap, but also due to the large population of working women in the country.

1. World Bank

All other data is from PwC analysis, using data sources listed in the appendix.
Women in China “hold up half the sky” with notable successes in the large number of female entrepreneurs and billionaires, but challenges remain

There remain obstacles that prevent women from taking full advantage of China’s economic expansion but Chinese women have also enjoyed successes, particularly entrepreneurship opportunities

In China, women still tend to be paid substantially less than their male counterparts in the workplace, which is reflected in its high gender pay gap of 25%. The gap in pay may be partly explained by social and cultural attitudes regarding the role of women which can discourage women from work. For example, traditional gender norms that place household and childrearing responsibilities on women are still pervasive in Chinese society and there remains strong social pressure on women in their 20s to focus on marriage over career ambitions, to avoid becoming one of China’s unmarried “leftover women”.

However, China stands out for having very high levels of women in full-time work, at 89%. The high female labour force participation rate, and in particular the high female full-time employment rate, may be explained by the social and family support networks available in China that make it easier for working mothers to remain in full-time work. For example, parents that migrate to cities for work (with women accounting for about half of migrant workers) often have the support of grandparents providing childcare in their hometown (Emery, Dukstra and Djundeva, 2018).

One of China’s notable successes with regard to female economic empowerment in recent years has been the rise of female entrepreneurship. According to government data, more than a quarter of all entrepreneurs in China are women, and in 2017, Chinese businesswomen made up 56 of the world’s 88 self-made female billionaires, making China one of the best places in the world to be a female entrepreneur.

One of the key drivers behind China’s female entrepreneurship success has been the growth of the digital economy and a thriving tech scene, comprising of sectors such as, e-commerce, AI and robotics. According to a report by the MSCI, out of 99 women who held chief executive positions in 2018, 17 of them were from Chinese companies, many of which were technology companies.

The digital economy is perceived to have lower barriers to entry and a more gender-neutral environment compared to traditional sectors such as manufacturing and real estate. The growth of these sectors, combined with rising education levels has led to the digital economy becoming a popular path to work and wealth for women in China.

With the greater involvement of female founders and leaders, Chinese tech firms are also fostering a more female-friendly work environment and culture, an area where OECD companies, including tech companies could learn from.

China’s challenge in improving gender equality in the workplace lies in reviewing policies and focusing on strengthening working women’s rights

• China has a number of laws and regulations in place to protect the rights of women in the labour market. For example, the Chinese constitution stresses that women are not to be discriminated against and China has numerous laws and policies designed to promote employment equality.

• However, in practice, gender discrimination in labour markets still exists, exacerbated by weak enforcement and unintended consequences of policies designed to address discrimination (China Labour Bulletin, April 2018). Stronger action is needed to address both implicit and explicit forms of discrimination, such as gender preferences when advertising job roles, but also through better enforcement of existing laws on discrimination at work.

• For example, the Chinese government recently passed improved maternity leave policies in 2016, partly as a measure to keep women from leaving the workforce and partly to improve declining fertility rates. However, there is yet to be significant changes made to paternity leave policies, meaning that women still shoulder most of the burden of childcare. Improved parental leave policies, such as shared parental leave could help address some of these imbalances and to support mothers returning to work.

• In addition, a formal gender pay equity review in China would likely help to diagnose further the causes and highlight the presence of the gender pay gap, from which policy recommendations on how to close the gap and improve gender equality in the workplace could be made.

All data is from data sources listed in the appendix.
India has made good progress on female economic empowerment since 2000, but still has a considerable way to go to match OECD levels, indicating that substantial gains could be made from tackling the gender gaps in the Indian labour market.

India is one of the fastest growing economies in the world, with cumulative GDP growth of 52% over 2012 to 2017.¹ This rapid expansion has presented greater economic opportunities for both men and women.

Over the same period, the female working age population grew by 9%, which has resulted in an increase in the absolute number of women entering the labour force. However the proportion of women entering the labour market has remained fairly constant.

Women’s educational attainment is also on an upward trajectory, with 89% women completing lower secondary education in 2017. As a result women are becoming better placed to take advantage of the wider economic opportunities in India.

If included in our Index, how would India perform?
- India has displayed significant economic and social progress over the past decades, meaning that more women than ever are entering the labour market.
- There is still room for improvement in terms of achieving a more gender equal labour market. India’s poor performance on the Index is owing to it having fairly low levels of women participating in the workforce (23%), and amongst those that do, only a quarter work full-time (26%). It also has a fairly large gender pay gap (36%).
- India’s female unemployment rate (8%) is however, lower than some of its richer counterparts in the OECD, such as Spain and Portugal.

How much are the gains to India from improving female employment?
- The female full-time employment rate in India is half that of male workers. This large disparity means that boosting female employment rates to that of Sweden, our benchmark country, could boost GDP by 79%, equivalent to a US$ 7 trillion increase in GDP.
- The economic gains from increasing female employment rates for India are greater than that for any OECD country.

How much are the gains to India from closing the gender pay gap?
- India has a substantially higher gender pay gap than any of the other countries included in our Index. Therefore we estimate that closing the gap would lead to a significantly larger percentage increase in female earnings for India than for OECD countries.
- Closing the gender pay gap would generate a 56% increase in female earnings, amounting to a US$ 245 billion boost to female earnings.
- The gains from closing the pay gap are larger than for most OECD countries, with the exception of the United States and Japan.

1. World Bank
2. World Bank
All other data is from PwC analysis, using data sources listed in the appendix.
India’s rapid economic growth is set to benefit its large female working population. Concerted action by the government and businesses can tackle the systemic constraints working women face.

Despite the significant gains in educational achievements and the growth in economic opportunity, there remain significant barriers to women in India entering and remaining in employment.

- Women face cultural barriers to working, such as social expectations of a woman’s role, which is to look after the home and family. These norms influence a woman’s decision to pursue employment opportunities outside the home, limiting participation in formal work and their earnings potential.

- There also exists a U-shaped pattern for education and female labour force participation, in contrast to male participation, which rises with education (Fletcher, Pande and Moore, 2017). While women at very low levels of education are poor and work for a livelihood out of necessity, highly-educated women are less likely to work due to the social perceptions that women having to work reflects poor living standards (The Economist, 2018).

- As a result, women spend a significant amount of time on domestic unpaid care work (90% more time than men, see OECD (2014)). The burden of care falls disproportionately on women, thus reinforcing social expectations of their role in the home and gender disparities in accessing work opportunities.

- For women that are engaged in paid work (outside agriculture), 70% of them work in the informal economy that falls outside the remit of laws around equal pay, maternity leave, and worker safety.¹

- Women also tend to be under-represented in the services sector and rely heavily on employment opportunities in the manufacturing sector. However, the manufacturing sector also suffers from a large gender pay gap for the same work (Fletcher, Pande and Moore (2017)). In the largest 8 cities in India, there also exists substantial gender disparities in occupations, hours worked, benefits and promotion opportunities.

- Furthermore, as per the National Crime Records Bureau, cases of sexual harassment within offices have risen rapidly since 2014. Safety for women remains a barrier that discourages women from seeking work opportunities away from home.

Several initiatives by the government and the private sector are underway to bring more women into the workforce and promote economic opportunity for women.

- There is a growing trend of social enterprises that offer gender-inclusive professional opportunities by offering more flexibility than their private sector counterparts. They challenge gender stereotypes by employing women in less traditional roles, such as driving, and often provide skill development training, to enhance a woman’s earning potential.

- The Maternity (amendment) Act, 2017 increased the duration of paid maternity leave from the existing 12 weeks to 26 weeks, while also introducing an enabling provision to allow women to work from home after 26 weeks.

- The government started the STEP (Support to Training and Employment Programme) for women to upskill females from poor socio-economic background and provide employability across a range of industries.

2. Ibid
3. Ibid

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**Women in work index**

More time spent on domestic unpaid care work by women than men.²

Women engaged in paid work outside of agriculture are in the informal sector.³
Turning policies into effective action
How can organisations translate well-meaning policies into effective change? It boils down to five key foundations

While governments play an important role in shaping a policy environment that supports gender equality and diversity in the workplace, it is up to organisations and employers to put this into practice. Indeed, organisations globally are investing a significant amount of effort and resources in developing diversity policies and embedding these practices. However, the results are not always matched by efforts. The lack of clear outcomes, targets and accountability can all impede the pursuit for tangible change. So, how can your organisations move the dial? Our work with organisations that are making the most progress highlights the importance of ensuring that diversity and inclusion (D&I) get the same direction, measurement and accountability that would be applied to any other strategic priority. In practice, this comes down to five key foundations for effective change.

**Align diversity with your business strategy**

Diversity should ultimately be a business-led issue. Identifying the business case for promoting diversity and inclusion within your business strategy is key. Articulate how D&I will support business priorities such as improving customer satisfaction, attracting hard-to-secure talent or enhancing business reputation. This will help build a D&I strategy that resonates with all stakeholders in your business and ensure that your overall strategy thinks beyond the workforce to include customers, suppliers, investors and wider society.

**Use data: what gets measured gets done**

What gets measured gets done. Use data and analytics tools to measure progress, target intervention and drive accountability. Potential data sources include workforce surveys, tracking the career paths of high potential individuals and exit surveys to gauge why key talent is leaving. This data can be used to diagnose potential areas for focus, set targets and measure progress, to create a picture of progress, measure the return on investment of your diversity and inclusion actions and identify areas for further improvement.

**Drive accountability from the top**

Without strong business leadership and accountability, progress will inevitably be limited. Set a clear direction for your organisation and ensure D&I is recognised as a business priority. This requires more than just statements of intent. Someone within the leadership team should be accountable for making it happen. Responsibility must also cascade down to individual business units, e.g. by building D&I metrics into individual performance objectives and incentives.

**Set realistic objectives and a plan to achieve them**

To make concrete change, it’s important to identify clear objectives and a pragmatic and focused action plan to achieve these. Identify the headline diversity and inclusion objectives that are most important to your business and set targets. Set targets that are measurable and track progress regularly. Use data to inform this process and sometimes you may discover issues that you weren’t aware were there.

**Be honest: tell it as it is**

Clear and honest communication on your commitments is important. Focus on plans for addressing identified deficiencies and progress over time, not just strengths. Your business might be wary of drawing attention to shortcomings, but you can get on the front foot by acknowledging shortcomings and setting out plans for accelerating progress. This can make a positive public impression but also shows staff that you are committed to addressing D&I challenges, which is just as important as managing your external image.

<table>
<thead>
<tr>
<th>Align diversity with your business strategy</th>
<th>Drive accountability from the top</th>
<th>Set realistic objectives and a plan to achieve them</th>
</tr>
</thead>
<tbody>
<tr>
<td>Diversity should ultimately be a business-led issue. Identifying the business case for promoting diversity and inclusion within your business strategy is key. Articulate how D&amp;I will support business priorities such as improving customer satisfaction, attracting hard-to-secure talent or enhancing business reputation. This will help build a D&amp;I strategy that resonates with all stakeholders in your business and ensure that your overall strategy thinks beyond the workforce to include customers, suppliers, investors and wider society.</td>
<td>Without strong business leadership and accountability, progress will inevitably be limited. Set a clear direction for your organisation and ensure D&amp;I is recognised as a business priority. This requires more than just statements of intent. Someone within the leadership team should be accountable for making it happen. Responsibility must also cascade down to individual business units, e.g. by building D&amp;I metrics into individual performance objectives and incentives.</td>
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Women in work index

PwC

March 2019
Testing the impact of diversity interventions through analytics

Flow rate analysis, by tracking employees from entry to leaving, can offer insights on areas that contribute to gender disparity at all levels. By building up a picture of how women move through an organisation over time, trends can be projected forward to predict the representation of women in an organisation in the future. Tests can then be applied to this to understand how improvements to specific areas (for example graduate recruitment, or senior level retention) will impact this picture, allowing organisations to understand the "return on investment" of different interventions and set appropriate targets and goals.

Recruitment
Getting diverse candidates in the door is often the immediate challenge. Some businesses have adopted blind CVs to avoid unconscious bias in the screening process. Some are also advertising roles as flexible by default to include candidates who have the right skills and experience but have non-standard work patterns.

Tech solutions and AI tools are increasingly being used to automate HR processes, such as screening CVs. This can lower costs, remove human bias and screen more candidates, but its use must be carefully monitored to avoid introducing or reinforcing biases.

Retention
There is little point in investing in recruiting women and diverse staff only for them to leave because of the lack of sustained and targeted efforts to retain them.

Predictive analytics can be used to identify the employees most likely to leave an organisation, to identify the factors that may drive women to leave. At the same time, employee sentiment monitoring can be used to understand the experience of working in an organisation day to day and how different factors. Technology tools can potentially be leveraged to address identified issues, such as AI in meeting rooms to invite diverse, unrepresented voices to join the conversation.

Progression
Businesses also need to tackle biases, as well as cultural or structural issues that can hinder progression and result in less diverse leadership pipelines.

Analysis of the probability of promotion (e.g. the likelihood of a woman being promoted once adjustments have been made for the number of women in the promotion “pool” can help organisations understand if inherent bias may exist within existing processes. Businesses can also help raise awareness about the impact of decision making by presenting promotion statistics to managers before decisions on pay and promotion are made.

Data, technology and analytics can help inform and drive diversity and inclusion

Using technology to detect bias and discrimination
Technology can be leveraged to address bias and discrimination, such as using AI to scan emails to detect inappropriate language. It can also be used in meeting rooms to identify who is speaking the most and to invite diverse, unrepresented voices to join the conversation.

Financial wellbeing and security
The pay gap can have far-reaching implications for society, as a large pay gap can significantly contribute to large differences in pension savings between men and women, leading to lower levels of financial security. Research by the CII (2018) shows that the average female retiree has a pension pot that is only one-fifth the size of a male retiree’s. PwC has developed Savings Lab, a tool that can be used to assess employees’ financial wellbeing and pension outcomes and analyse differences between employee groups.
Individual labour market indicators
The gender pay gap

Figure 5.1: Gender wage gap, 2000 – 2017

Over the longer term, Luxembourg has made the most significant improvements to the pay gap, closing it by 11 percentage points.

The average gender pay gap across the OECD countries has fallen slightly from 16% to 15% between 2016 and 2017 and from 19% to 15% since 2000. Of the 33 OECD countries included in our analysis, 20 have made gains to narrow the gender pay gap between 2016 and 2017 and 25 countries have improved since 2000.

The UK gender pay gap narrowed from 26% in 2000 to 17% in 2017, but progress has remained stalled in recent years, with the gender pay gap remaining constant at 17% since 2014.

Source: OECD, Eurostat. OECD data refers to the difference in the median earnings for all full-time employees, while Eurostat compares the mean earnings. Data extrapolated using linear interpolation where data unavailable.
The female labour force participation rate remained unchanged at 69% on average across the OECD from 2016 to 2017. The largest short-term gains were observed in Slovenia, Ireland and Estonia.

Over the longer term, the average female labour participation rate across OECD countries has increased from 62% to 69%. Chile and Spain have seen the largest improvements of 18 and 17 percentage points respectively since 2000.

Source: OECD, BLS.
The gap in participation rates between males and females has remained constant on average across the OECD between 2016 and 2017, with Luxembourg experiencing the largest improvement of 3 percentage points. The UK has reduced its participation gap from 15% to 10% since 2000 but no improvements were made compared to last year. Over the longer term, the participation gap has fallen from 17% to 11% on average across the OECD countries and has narrowed in all countries except Poland. Mexico continues to experience the largest gap between male and female labour force participation rates at 35% but this has narrowed by 9 percentage points since 2000.
Since 2000, Poland has seen the most significant reduction in female unemployment, falling from 18% in 2000 to 5% in 2017.

Female unemployment rate has moved around quite significantly over the period 2000-2017, partly because of the financial crisis and the Eurozone debt crisis. The average female unemployment rate in the OECD in 2016 was the same as in 2000 (8%), as it declined after the crisis from its previously higher levels. This saw slight improvement in 2017.

On the other hand, female unemployment in Greece increased from 17% to 26% over the same period.

Women in work index
The share of women in full-time employment has remained constant between 2016 and 2017 across the OECD. Since 2000, the female full-time employment rate has decreased from 76% to 75% on average, with countries such as Chile, Italy and Austria experiencing a large rise in the proportion of women working part-time.

In the UK, the female full-time employment rate has increased from 59% to 63% since 2000, however the UK continues to lag behind the OECD average by 12 percentage points on this indicator.
Methodology
About the PwC Women in Work Index

The PwC Women In Work is a weighted average of various measures that reflect female economic empowerment, including the equality of earnings, the ability of women to access employment opportunities and job security. The indicators that make up the Index and their associated weights are provided on the following page.

Scoring methodology
- Indicators are standardised using the z-score method, based on the mean and standard deviation of the sample of 33 OECD countries (all OECD countries excluding Turkey and Latvia) in 2000, to allow for comparisons across countries and across time for each country. This is a standard method used by PwC and others for many other such indices.
- Positive/negative factors were applied for each variable based on the table on the next page.
- The scores are constructed as a weighted average of normalised labour market indicator scores.
- Finally, the scores are rescaled to form the PwC Index with values between 0 and 100 and an average value across 33 countries set by definition to 50 in 2000. The average Index value for 2017 can, however, be higher or lower than this 2000 baseline.

Data sources
- Labour market data obtained for 2017, except where specified. All data provided by the OECD with the exception of data on the pay gap, which has been obtained from Eurostat for all countries with the exception of the following, where data has been obtained from the OECD: Australia, Canada, Chile, Greece, Ireland, Israel, Japan, Korea, Mexico, New Zealand, United Kingdom and United States.
- Methodological differences account for differences between data on the gender pay gap reported by the OECD and Eurostat. The OECD pay gap measures the difference in median earnings for all male and female full-time employees in all sectors, whereas the headline Eurostat pay gap (largely used in our analysis) measures the difference in mean hourly earnings for all male and female employees for all sectors except agriculture and public administration.
- Note: Throughout this report, we follow convention in the literature and refer to the gap between male and female pay as the ‘gender pay gap’. This however accounts only for differences in hourly earnings and not overall pay which includes bonus payments.
## Index methodology – Variables included in scoring

<table>
<thead>
<tr>
<th>Variable</th>
<th>Weight %</th>
<th>Factor</th>
<th>Rationale</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gap between female and male earnings</td>
<td>25</td>
<td>Wider pay gap penalised</td>
<td>Earnings equality underpins the fundamental principle of equal pay for equal work.</td>
</tr>
<tr>
<td>Female labour force participation rate</td>
<td>25</td>
<td>Higher participation rates given higher score</td>
<td>Female economic participation is the cornerstone of economic empowerment, which is a factor of the level of skills and education of women, conducive workplace conditions, and broader cultural attitudes outside the workplace (e.g. towards shared childcare and distribution of labour at home).</td>
</tr>
<tr>
<td>Gap between female and male labour force participation rates</td>
<td>20</td>
<td>Higher female participation rate relative to male participation rate given higher score</td>
<td>Equality in participation rates reflect equal opportunities to seek and access employment opportunities in the workplace.</td>
</tr>
<tr>
<td>Female unemployment rate</td>
<td>20</td>
<td>Higher unemployment penalised</td>
<td>The female unemployment rate reflects the economic vulnerability of women. Being unemployed can have longer-term impacts in the form of skills erosion, declining pension contributions and increased reliance on benefits.</td>
</tr>
<tr>
<td>Share of female employees in full-time employment</td>
<td>10</td>
<td>Higher share of full-time employment given higher score</td>
<td>The tendency for part-time employment may adversely affect earnings, pensions and job security. However, this factor is given a lower weight in the Index since some women may prefer part-time jobs to fit flexibly with caring roles.</td>
</tr>
</tbody>
</table>
Methodology for calculating potential GDP impacts from increasing employment rates

We break down GDP in the following way

\[
\text{GDP boost} = \frac{\text{GDP}}{\text{FTE}} \times \text{Difference between Sweden's FFTE and a given country's FFTE, if Sweden's FFTE is higher}
\]

We calculate full-time equivalent employment (FTE) as full-time employment plus half of part-time employment. We consider the potential boost to GDP under two different scenarios:

- Increasing the female full-time equivalent employment rates (FFTE) to that of a benchmark country (holding the male rates constant). We use Sweden as our benchmark country as it has the second highest female labour force participation rate. Iceland has the highest female labour force participation rate, however we use Sweden as it is a reasonably large economy and therefore a more suitable comparator country for the OECD.

Simplifying assumptions

In order to estimate the GDP impacts of increasing female employment rates, with the data available, we have made the following simplifying assumptions:

- Total employment in the economy is equal to employment within the 15-64 age group.
- A full-time (FT) worker is twice as productive on average as a part-time (PT) worker.

We break down annual total earnings in the following way

\[
\text{Total earnings} = \text{Average male earnings}^{1} \times \text{Male workers} + \text{Average female earnings}^{1} \times \text{Female workers}
\]

where

\[
\text{Average male earnings} = \frac{\text{Average female earnings}}{1 - \text{gender pay gap}}
\]

In order to estimate the potential gains from closing the gender pay gap, we made the following simplifying assumptions:

- Total employment in the economy is equal to employment within the 15-64 age group.
- The median wages are equivalent to mean wages.
- The gender pay gap is closed by increasing female wages to match male wages.
- The elasticity of female employment to a change in wages is 0, meaning that a 1% increase in wages results in no change in female employment. This takes into account the counteracting effects of labour supply and demand elasticities: an increase in wages makes it more expensive for employers to hire more workers, however higher earnings also incentivise potential workers to seek employment. Our literature review suggests that –
  - Estimates of labour supply elasticity range from 0.5 to 0.9.
  - Estimates of labour demand elasticity range from – 0.5 to – 0.3.
- We take a conservative view that the counteracting effects of cancel each other out with no resulting change in female employment.
- The simplifying assumptions provide us with conservative gain estimates because:
  - The gender pay gap is likely to be higher at the mean, which may be skewed upwards by a small number of high earners amongst male employees, than at the median which has been used to obtain data for at least 10 countries, as noted in the data sources above.
  - The 64+ age group has not been included in the analysis.

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## Data sources – India and China

<table>
<thead>
<tr>
<th>Indicator</th>
<th>India</th>
<th>Adjustments</th>
<th>China</th>
</tr>
</thead>
<tbody>
<tr>
<td>Female and male labour force participation rate</td>
<td>Source: Annual report (2017-18), Government of India</td>
<td>Adjustments: Applied the compounded annual growth rate (CAGR) to data from 2011 to 2015 to get estimates for 2017.</td>
<td>Source: ILO 2017 estimate</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Gap between male and female labour force participation rate</td>
<td>Annual report (2017-18), Government of India</td>
<td>Applied the CAGR to data from 2011 to 2015 to get estimates for 2017.</td>
<td>ILO 2017 estimate</td>
</tr>
<tr>
<td>Female and male unemployment rate</td>
<td>Annual report (2017-18), Government of India</td>
<td></td>
<td>ILO 2017 estimate</td>
</tr>
<tr>
<td>Female and male employment</td>
<td>UNDP and Annual report (2017-18), Government of India</td>
<td></td>
<td>ILO 2017 estimate</td>
</tr>
<tr>
<td>Female and male full time employment rate</td>
<td>PwC India Research</td>
<td>Most recent data available was 2011.</td>
<td>China Labour Statistical Yearbook 2016</td>
</tr>
<tr>
<td>Female and male working age population</td>
<td>UNDP</td>
<td></td>
<td>UNDP</td>
</tr>
<tr>
<td>GDP (USD and local currency)</td>
<td>OECD</td>
<td></td>
<td>OECD</td>
</tr>
</tbody>
</table>

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*OECD*: Organisation for Economic Co-operation and Development

*UNDP*: United Nations Development Programme

*PwC*: Price Waterhouse Coopers

*ILO*: International Labour Organisation

*UNDP*: United Nations Development Programme

*China Labour Statistical Yearbook 2016*: China Labour Statistical Yearbook

*2013 Chinese Household Income Projects (CHIPs)*: 2013 Chinese Household Income Projects (CHIPs) data for both rural and urban workers


*World Economic Forum*: World Economic Forum

*Women and Men in India (2017)*: Women and Men in India

*Employment and Unemployment Situation in India (2011-12)*: Employment and Unemployment Situation India

*Government of India and World Bank*: Government of India and World Bank

*Government of India*: Government of India

*World Bank*: World Bank

*Employment and Unemployment Situation in India (2011-12)*: Employment and Unemployment Situation India

*Government of India*: Government of India

*Women and Men in India (2017)*: Women and Men in India
Data sources – UK regional data

We have applied the same methodology as for the main index to construct the UK regional index. This includes using the same weights and factors.

<table>
<thead>
<tr>
<th>Indicator</th>
<th>Source</th>
</tr>
</thead>
</table>
Bibliography

- The Economist (2018). Culture and the labour market keep India’s women at home.
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Our Economics practice in the UK offers a wide range of services covering: market reform in a range of industry sectors (including energy, water, media and telecoms, financial services, health and government services); competition policy, disputes and other investigations; economic, social and environmental impact analysis; financial economics; fiscal policy and macroeconomics. This practice forms part of Strategy&, PwC’s strategy consulting business.

For more information about our Economics services please visit: www.pwc.co.uk/economics

Our Women in Work Index is one of a series of related PwC labour market indices. Please take a look at our other indices for older and younger workers at the links below:

PwC’s Golden Age Index
How well are the OECD economies harnessing the power of an older? www.pwc.co.uk/services/economics-policy/insights/golden-age-index.html

PwC’s Youth Employment Index
The potential £40 billion prize from boosting youth employment, education and training in the UK www.pwc.co.uk/services/economics-policy/insights/youth-employment-Index.html

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