
International Women's Day

PwC Women In Work Index

March 2016



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PwC Women in Work Index

Harnessing the full potential of the female workforce

This report provides an update to our annual PwC Women in Work Index, which combines key indicators of female economic empowerment into a single comparable index for 33 OECD countries. The Nordic countries continue to dominate the Index. The UK has also made significant gains this year, jumping from 21st to 16th position on the Index.

Significant gains have been made across the OECD to improve female economic empowerment: more women are in work than ever before, and unemployment rates have gradually declined following 2008 global financial crisis.

However, the gender pay gap remains unacceptably wide – women are still paid \$83 for every \$100 her male counterpart earns on average across the OECD. Underemployment also remains a pressing issue. In the UK alone, 1.5 million women would like to work more hours but do not have the opportunity to do so.

There is much more that businesses and governments can do to fully leverage female talent. Policy levers that improve access to affordable childcare and shared parental leave have been shown to get more women in work. The UK also recently joined the ranks of Finland, Germany, Sweden and Austria by introducing disclosure requirements over the gender wage gap. From PwC's own experience, reporting our gender pay gap has increased awareness across our business of the underlying issues and allowed us to take action as part of our wider diversity initiatives. This is also important in attracting the next generation of female talent, as our global Female Millennials report shows. Businesses could also do more to support women's career advancement to ensure a diverse pipeline of future leaders.

Our research also highlights the potential economic benefit from harnessing the full potential of the female workforce: improving female employment across the OECD to match Sweden's performance could yield a boost to GDP of almost US\$5 trillion!

We hope you find our analysis useful as a contribution to this debate.

Yong Jing Teow
Economist, PwC





PwC WIW Index – Key results

1

PwC Women in Work Index

Key findings from our analysis

The fourth update of the Women in Work Index provides our assessment of female economic empowerment 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 Annex for more details of the methodology).

Country rankings and trends

- Iceland, Norway and Sweden are the top 3 performing OECD countries in this latest update of the Women in Work Index. Six new countries were added to the Index this year – Chile, Estonia, Iceland, Luxembourg, Mexico and Slovenia.
- Hungary has achieved the most significant year-on-year improvements, due to a significant narrowing of the wage gap, a rise in female labour force participation and a fall in unemployment. However, the Netherlands has also seen a significant fall in its position from 18th to 23rd position, driven largely by a rise in the female unemployment rate.

Policy implications

- In the UK, the lack of access to affordable childcare is a key barrier holding back women from returning to work following motherhood. There is therefore a strong economic case for UK policymakers to improve access to affordable and quality childcare.
- Other policies to support women returning to work and equality in the workplace include improving tax incentives for women to return to work, introducing stronger incentives to encourage take-up of shared parental leave and promoting pay transparency.

UK performance

- The results show that the UK rose from 21st to 16th position out of the OECD countries in 2014, with a 2.9 point increase in its Index score relative to 2013.
- The improvement in the UK's index performance from 2013 has largely been due to a narrowing of the gender wage gap and a significant reduction in the female unemployment rate due to the stronger economic growth in recent years. Although the UK's performance is slightly ahead of the average OECD country, it lags behind its peers on the gender wage gap and the share of women in full-time employment.

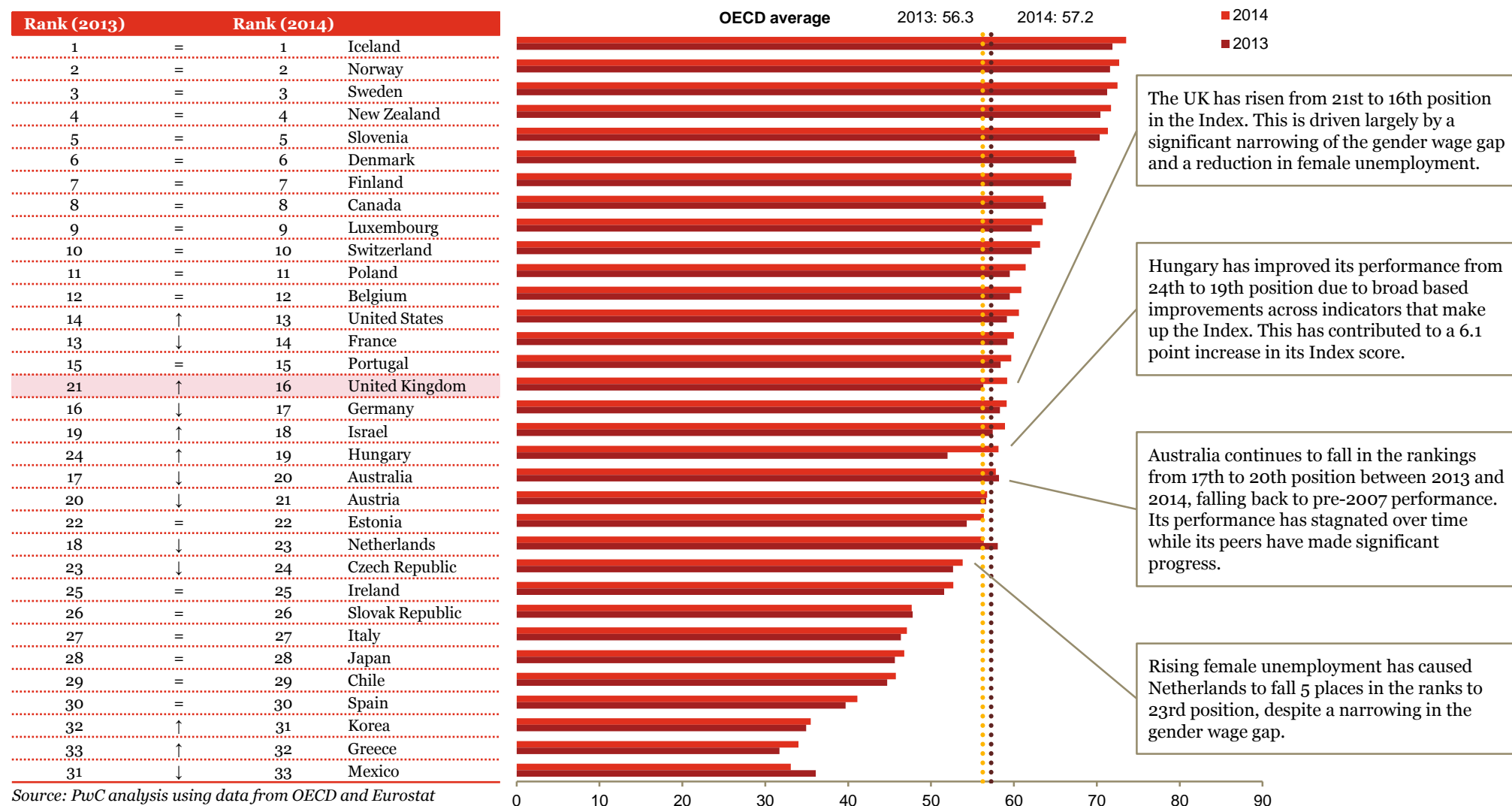
Business implications

- Businesses should ensure that all employees are fairly remunerated by ensuring that pay and promotion decisions are fair, and to support women's career advancement to develop a pipeline of female leaders. Promoting flexible working options is also an opportunity for businesses to fully leverage the talent of its female employees by ensuring that they undertake roles suited to their skills and experience.

Potential long-term economic gains

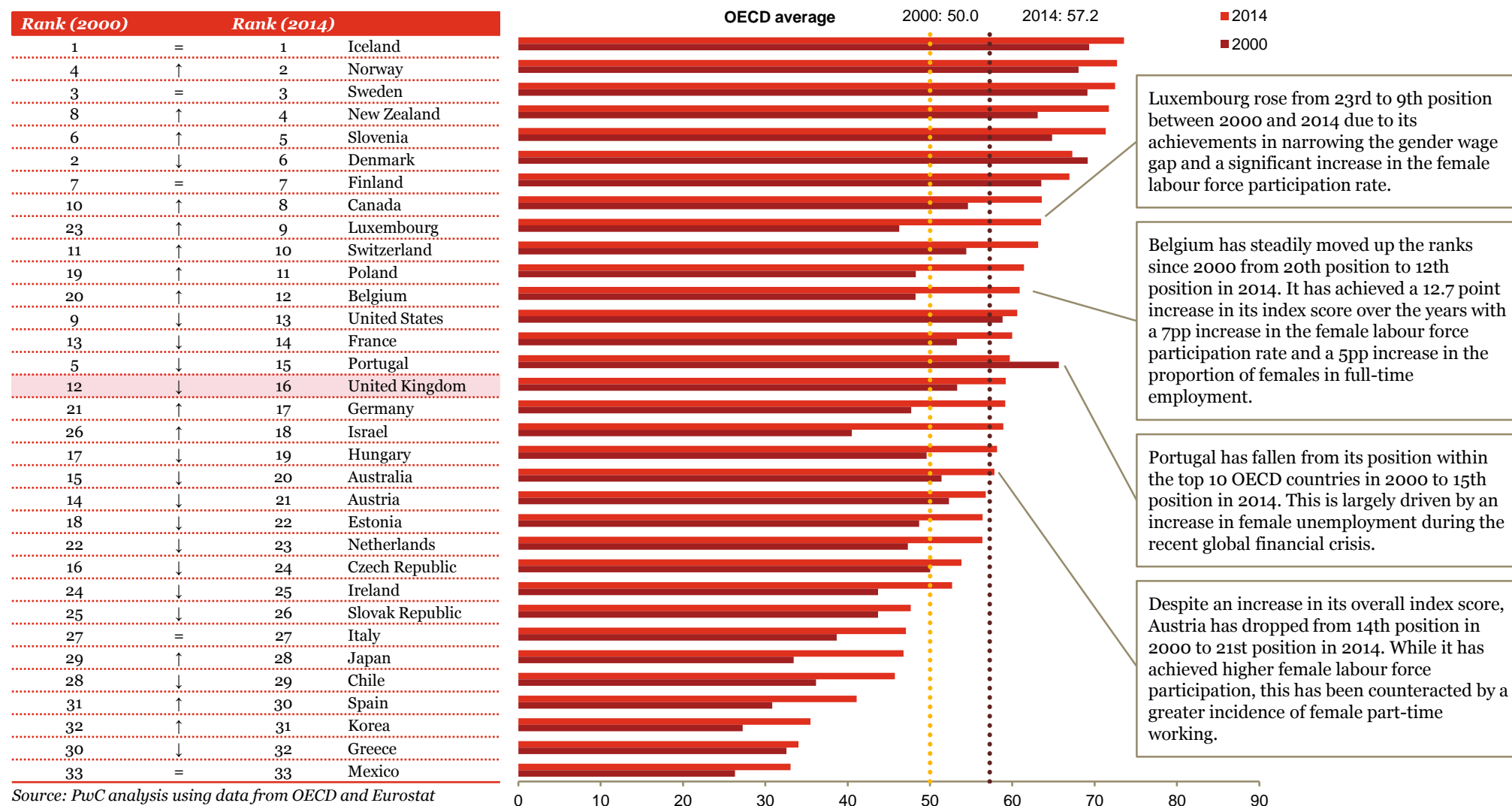
- Our analysis shows that harnessing the full potential of the female workforce could deliver significant economic benefits in the long-term. Increasing the female employment rate in the UK to match that of Sweden in the long run could result in a GDP boost of around 9%, equivalent to around £170 billion at today's values.
- Greece, Mexico and Italy could experience the largest gains to GDP – in excess of 20% of current GDP levels – if their female employment rates rise to match those of Sweden's. Across the OECD, the long-term gains from increasing employment rates could be in excess of US\$5 trillion (at today's values).
- Closing the gender wage gap in the UK could boost overall female earnings by almost 20%, equivalent to around £80 billion. Similarly, countries with the largest gender wage gaps (such as Korea, Estonia and Japan) have the largest potential gains from closing this gap, which would boost female earnings in those countries by more than a third.

Figure 1: PwC Women in Work Index, 2014 vs. 2013



Source: PwC analysis using data from OECD and Eurostat

Figure 2: PwC Women in Work Index, 2014 vs 2000



Source: PwC analysis using data from OECD and Eurostat



2

Potential economic gains from getting more women into work and closing the wage gap

The gains from getting more women into work and closing the gender wage gap could be significant

How much are the gains to different countries?

- Our analysis provides estimates of the broad order of magnitude of potential gains for each country from increasing employment rates to match those of Sweden – a consistently top performer in our Index.
- The largest potential gains are likely to accrue to countries with relatively low female employment rates, such as Greece, Mexico and Italy. These countries could potentially boost their GDP by more than 25% by increasing the rate of female employment to match that of Sweden's.
- The economic benefit to the UK from increasing the level of female employment from 68% to 73% could be in the order of 9% of GDP. Austria and Portugal could see gains of a similar magnitude.
- Lower potential gains could be made by countries whose female employment rates are close to that of Sweden's, namely the other Nordic countries (Denmark, Finland and Norway) and Estonia.
- Iceland, whose performance is already above that of Sweden's, is excluded from Figures 3 and 4.

- The potential long-term economic gains across the OECD from an increase in women in work is a boost to GDP by more than US\$5 trillion.
- Closing the gender wage gap is likely to deliver significant increase in overall female labour earnings.
- The largest gains in percentage terms are to be found for countries with the largest gender wage gaps, notably Korea, Estonia and Japan. Closing the gap in these countries could increase female labour earnings by more than a third in these countries.
- The gains to the UK from closing the gender wage gap – which currently stands at 18% – could amount to £80 billion.
- Our analysis also assumes 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.

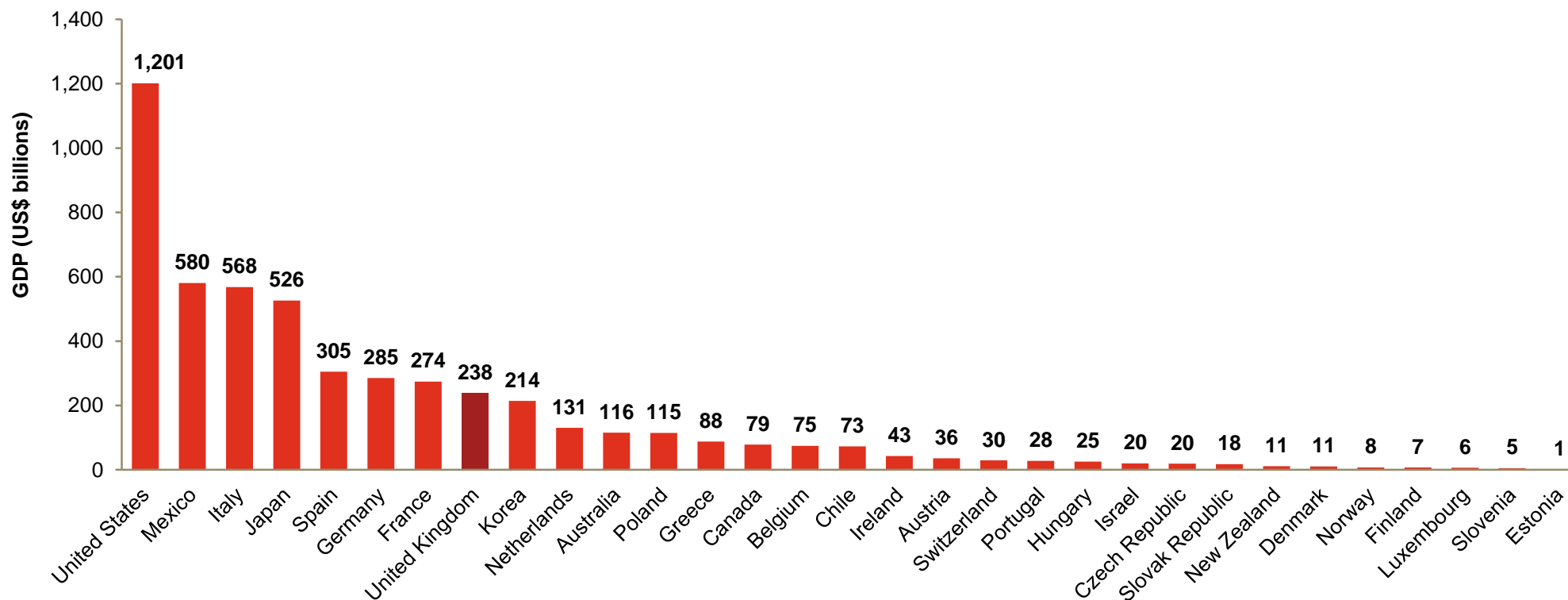
How long will it take to achieve these gains?

- Countries that are close to the frontier may be able to realise these gains in the short – to medium-term.
- Other lower performing countries may require more fundamental policy and cultural changes by businesses and government, which will require more time, perhaps decades, to achieve in full. However, it does provide aspirational targets for OECD countries to achieve.
- The next section in this report discusses policy recommendations and changes to businesses that could be adopted to achieve these targets.

Potential GDP boost from increasing the number of women in work

If the UK's female employment rate were to match Sweden's – a country with amongst the highest female employment rates within the OECD – the GDP gains could be as much as \$240 billion (£170 billion at current exchange rates). The UK could achieve a higher employment rate either by boosting female labour force participation rate or lowering the unemployment rate.

Figure 3: Potential GDP boost from increasing female employment rates to rates in Sweden, 2014

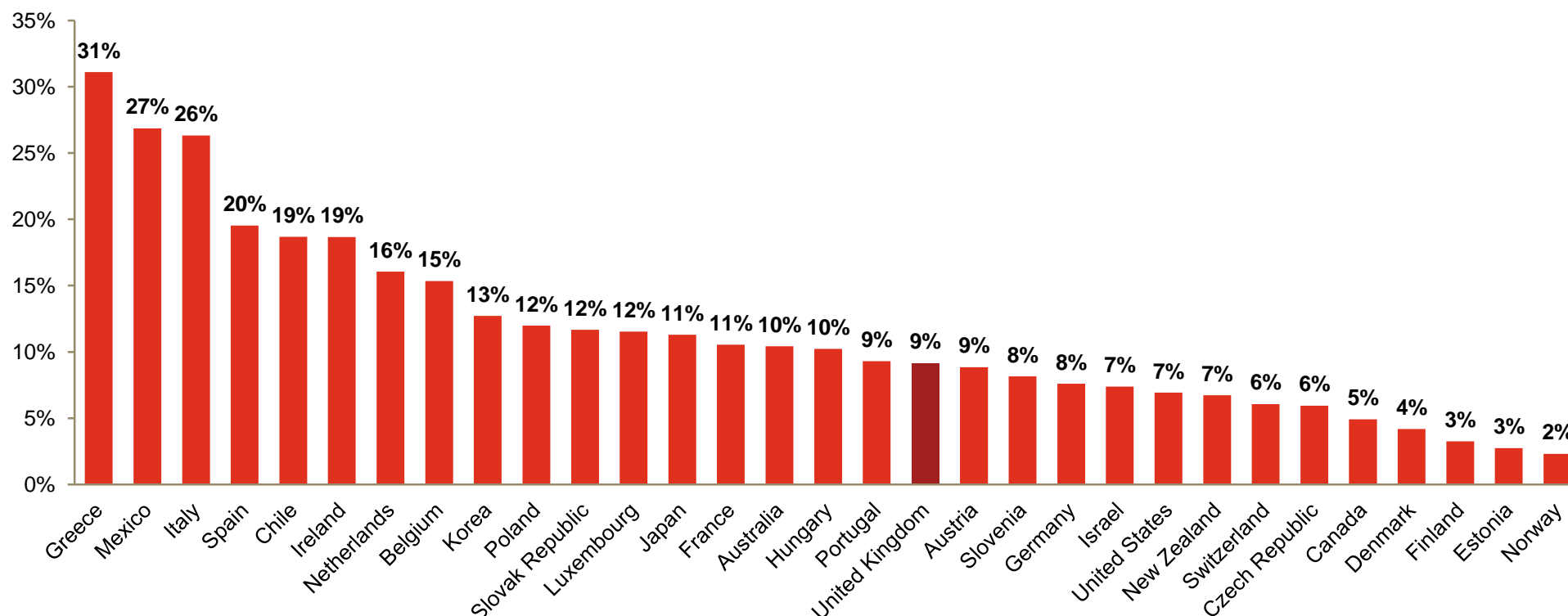


Source: PwC analysis, OECD

Potential GDP boost from increasing the number of women in work

In percentage terms, the UK could experience a 9% boost to GDP if its female employment rates were to match that of Sweden's. Of the OECD countries, Greece stands to gain the most in terms of a percentage boost to GDP from increasing female employment rate to match Sweden's – this could be as high as 31%.

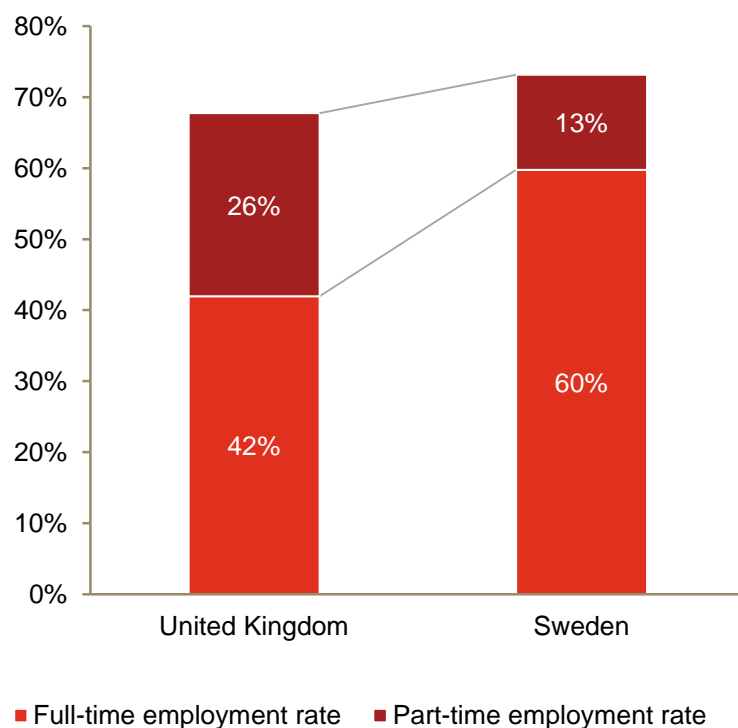
Figure 4: Potential percentage GDP boost from increasing female employment rates to rates in Sweden, 2014



Source: PwC analysis, OECD

Potential £170 billion gain to UK GDP by increasing female employment rates to Sweden levels

Figure 5: Increasing UK female employment rates to Sweden female employment rates, 2014



Based on the UK's current employment rates and GDP, and assuming that full-time workers contribute twice as much to GDP as part-time workers, its GDP per worker breaks down as follows:

- \$100 million (£70 million) per 1000 full-time workers
- \$50 million (£35 million) per 1000 part-time workers

Increasing female full-time and part-time employment rates to those of Sweden's increases the full-time employment rate by 18 percentage points and reduces the part-time employment rate by 13pp.

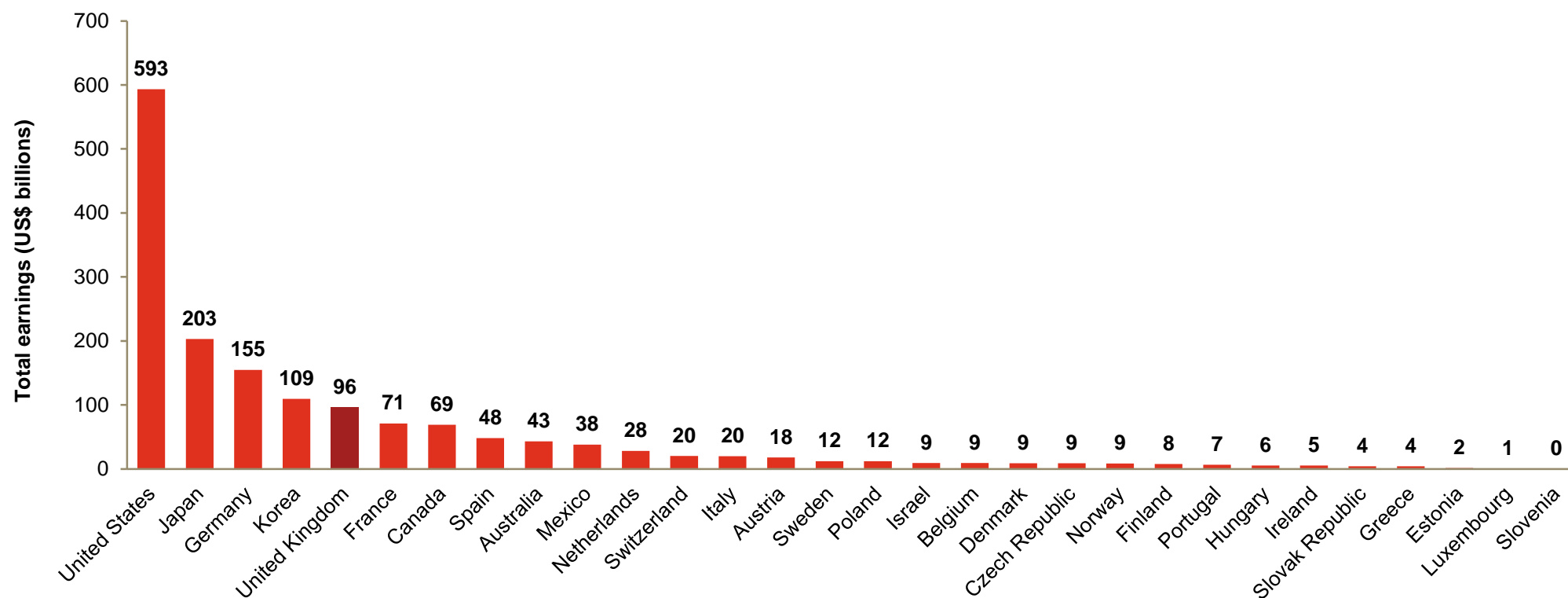
The additional employment contributes to an estimated \$240 billion (£170 billion) of additional GDP based on the GDP per worker assumptions above.

Source: PwC analysis, OECD

Boost to female earnings from closing the gender wage gap

Closing the gender wage gap by increasing the wages of female workers to those of male workers in the UK would increase total female earnings by an estimated \$100 billion (c.£80 billion at current exchange rates). Of the OECD countries, the United States is expected to gain the most in absolute terms from closing the gender wage gap with an estimated increase in total female earnings of \$600 billion.

Figure 6: Potential increase in total female earnings from closing the gender wage gap, 2014

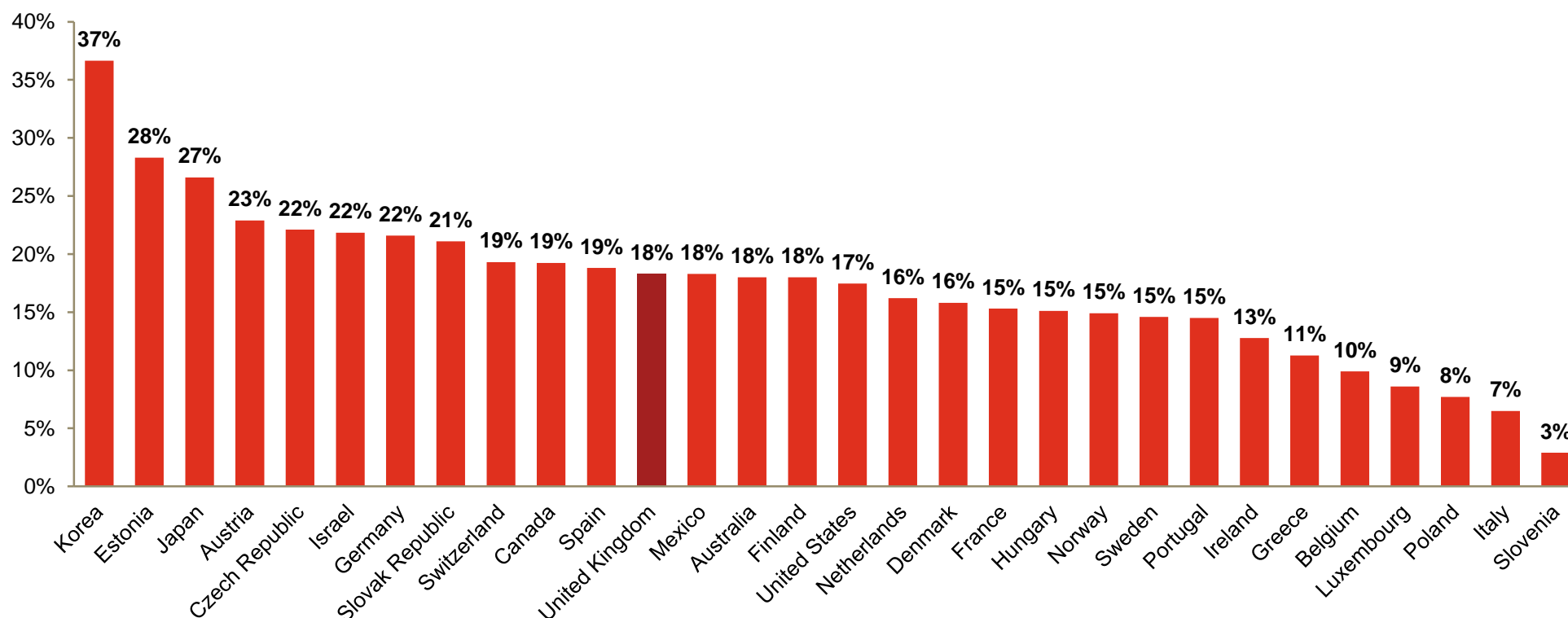


Source: PwC analysis, OECD, Eurostat

Boost to female earnings from closing the gender wage gap

In percentage terms, closing the gender wage gap in the UK could lead to an estimated increase in female earnings of 18%. Korea is expected to see the greatest percentage increase in female earnings – 37% – from closing the gender wage gap.

Figure 7: Potential percentage increase in total female earnings from closing the gender wage gap, 2014



Source: PwC analysis, OECD, Eurostat

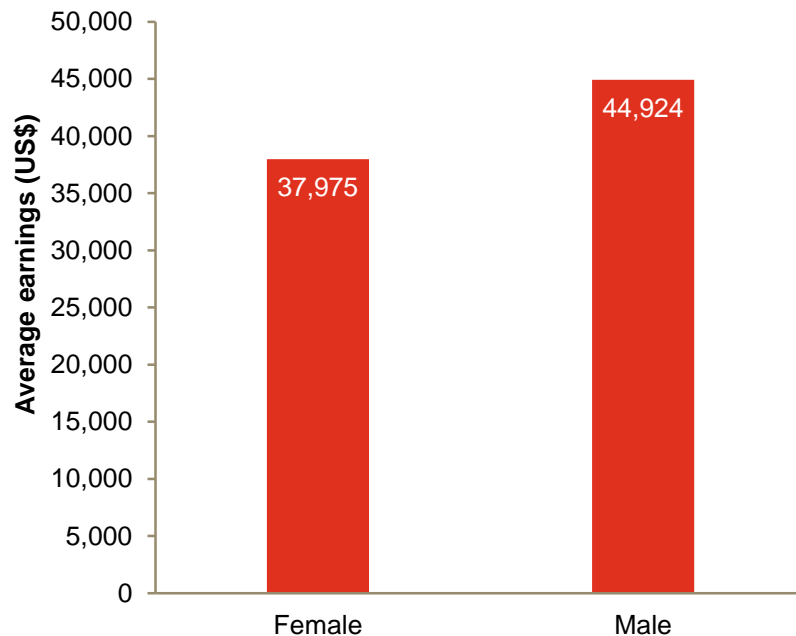
Potential £80 billion gain to total female earnings in the UK from closing the gender wage gap

Figure 8: Closing the wage gap between men and women in the UK, 2014

Based on the UK's current gender wage gap of 18% and total earnings in the economy, the average earnings for women and men breaks down approximately as follows:

- \$38,000 (£30,000) per female worker
- \$45,000 (£36,000) per male worker

Increasing female earnings to the average earning for men could result in a 18% increase in female earnings. Assuming no change in female employment and average female wage is equivalent to that of men, the result of closing the wage gap would be around £80 billion (\$100 billion) boost to total female earnings.



Source: PwC analysis, OECD, Eurostat



Policy and business implications

3

Policy lessons from Nordic countries

The top performers on the Index, which consists of the Nordic countries (Sweden, Norway and Denmark), offer some useful policy lessons for the rest of the OECD. These three countries have achieved the EU's 2020 employment rate target of 75% for both men and women between 20 and 64, as well one of the highest maternal employment rates in the OECD (83.1% in Sweden and 81.9% in Denmark, compared to an OECD average of 66.8%). This has been made possible by a combination of family-friendly policies and cultural changes that acknowledge the right of each individual to work and support themselves, and to balance their career and family life. These include generous parental leave allowances, strong social safety nets, access to affordable childcare, as well as legislative protection against discrimination.

Shared parental leave

- Sweden and Norway introduced shared parental leave as early as in the 1970s, with the view of increasingly involving fathers in childcare and household work. In Sweden, parents are currently entitled to share 480 days of paid parental leave when a child is born or adopted. Each parent also has a personal, non-transferable entitlement of 2 months paid leave. Swedish parents also get significant support from the state in the form of family benefits for children. This support amounts to 3.1% of GDP compared to 2.2% for the EU on average.

Access to affordable childcare

- Another factor supporting women returning to work following motherhood is the availability of affordable and quality childcare. In Sweden, public childcare operates on a whole-day basis. Pre-school is also free for children between three and six for up to 15 hours a week. Childcare fees are also means-tested, as fees are proportional to parents' income and inversely proportional to the number of children in the family. Parents typically cover 11% of the cost of a place in pre-school which means that the cost of childcare is also heavily subsidised by the state. Similarly, other Nordic countries also have comparatively high rates of use of childcare services: 97% and 57% of Icelandic and Finnish children respectively are enrolled in childcare for 30 or more hours per week, compared to an EU average of 15%.

- The availability of state support means that the costs of returning to work for mothers are significantly lower. Including state support, childcare-related costs in the Nordic countries account for around 5-10% of household income, compared to almost a third of household income in the UK.
- As a result, the Nordic countries have one of the highest female labour force participation rates in the OECD, and the smallest gaps in the employment rate between women who have children and those who don't. Although these policies come at a cost of higher taxes, female employment has brought about significant economic benefits, as well as made it possible for parents to combine both work and family.

Implications for UK public policy

The UK could benefit from policies or incentives to stimulate gender quality in the workforce, encourage dual-earner households and to keep mothers in employment. Although the UK's overall female employment rate is higher than the OECD average, many women who wish to return to work face difficulties in reconciling paid employment and family responsibilities, leading to lower maternal employment rates. The UK's maternal employment rate of 66.6% in 2013 compares less favourably to the OECD average and indeed those of the Nordic countries. Below we set out a few policy recommendations to address the 'motherhood penalty'.

Providing access to affordable childcare

- Access to affordable childcare remains an important determinant of female employment following motherhood as it impacts the costs of returning to work. An important component of the success of the Nordic countries in integrating women in the workplace is access to affordable childcare. However, in the UK, the lack of access to affordable childcare remains an issue: two-thirds of respondents to a survey by Mumsnet and the Resolution Foundation cite the high cost of childcare as being a barrier to returning to work. Parents in the UK spend around 27% of household income on childcare. In contrast, families in Denmark and Sweden pay much lower proportions of their income – 9% and 5% respectively – due to higher levels of state investment in childcare.
- The lack of flexibility in the provision of childcare (e.g. cover before 8am and after 6pm) also make it more difficult for parents who work non-standard hours to arrange for childcare. Partially as a result of this, UK parents also tend to have a higher reliance on informal childcare, e.g. relying on non-official care from relatives or friends. Over a third of UK parents use this approach for kids aged 3-5. This compares to 19.6% for France and 0.1% in Denmark.

- There is a strong economic case for UK policymakers to improve access to affordable and quality childcare: A report by IPPR shows that the UK's fiscal position could improve in excess of a billion pounds a year from higher tax contributions (from higher female employment rates) and lower welfare payments.

Strengthening incentives to encourage take-up of shared parental leave

- From April 2015, parents in the UK have been able to share parental leave following the birth or adoption of a child. However, the UK could go further by introducing non-transferable leave, which could sharpen the incentives for parents to take-up leave. Such an approach could have a greater impact in addressing the 'motherhood penalty' and drive changes in cultural perceptions of gender roles within the household.
- Although women still account for the lion's share of parental leave, Sweden's 'use-it-or-lose-it' approach has helped encourage take-up by fathers, who currently use a quarter of the total allowance. Similar results were found for Denmark and Norway, which also have use-it-or-lose-it schemes. This has clear economic effects: an increase in take-up of parental leave by the father is associated with an increase in the mother's earnings, as well as more equitable distribution of household tasks including childcare, which is likely to lead to a positive impact on female employment.

Implications for UK public policy

Improving tax incentives for women to return to work

- The tax system can have a significant impact on working patterns, and is an important policy lever to influence return to work or time spent at work.
- For example, the UK combines an individual-based income tax system with a complex system of family-based, means-tested benefits and tax credits in which entitlements are strongly influenced by family circumstances, including the earnings of any partner, and other family characteristics such as the number and age of children.
- For example, means-tested benefits (e.g. child tax credits) that are unrelated to hours of work are likely to weaken work incentives. As a result, those who face the multiple withdrawal of means-tested benefits when entering the labour market tend to have high marginal effective tax rates, which significantly impacts the incentives for women to return to work, particularly mothers who receive child benefits. Similarly, low earners – who are more likely to be women – also face relative high participation tax rates as they stand to lose potentially large income support (if they are employed), and their in-work income may not be sufficient to compensate for the loss of these benefits.

- On the other hand, the presence of in-work benefits, i.e. benefits that are contingent on employment, offer stronger incentives for women to enter the workforce as they reduce the participation tax rate.
- Given that UK maternal employment rates tend to be low despite the group's relatively strong preference for work, there is more that could be done to encourage higher participation, perhaps through tax incentives.
- OECD countries that have adopted a similar approach have seen positive results on labour market participation: The abolition of existing tax credit for dependent adults and the introduction of a new family in-work benefit led to an average increase in female labour supply of 3 percentage points in Italy. Similarly, the introduction of the earned income tax credit (EITC) in the US has also increased labour force participation among women.

Promoting pay transparency and equality

- Although the UK's gender wage gap has narrowed significantly since 2000, women still make 83p for every £1 that men earn. The persistence in the gender wage gap is caused by a combination of factors, including the concentration of women in lower paid occupations and the lack of female representation at senior levels. As a measure to address the pay gap, the UK recently joined the ranks of Finland, Germany, Sweden and Austria by

introducing disclosure requirements over the gender wage gap. From 2018, UK businesses with more than 250 employees must report the difference in salaries, including bonuses, between male and female employees from 2018.

- Greater transparency can create awareness: some employers may not be aware that a gender pay gap exists until they analyse pay information. Conducting pay audits and external reporting also creates a stronger sense of responsibility to drive action internally: 82% of employers and businesses that responded to the government's consultation on closing the gender pay gap agreed that greater transparency would encourage employers to close the gender pay gap.
- The government could go further by requiring firms to disclose the pay gap for different wage bands or job roles, as well as requiring firms to report progress and the actions that are being taken to address the gap. For example, Finnish companies are required to produce an equality plan that must be shared with employees every other year, in addition to reporting the pay gap within job roles and pay grades.

Implications for businesses

Women who return to the labour market following motherhood often face constrained employment prospects. As a result, as many as 1.5m women in the UK who would like to increase their hours but are unable to. There are significant opportunities for businesses to fully leverage the skills and experience of their female workforce.

Ensure that all employees, including women are fairly remunerated

- Businesses should ensure that women are fairly remunerated in line with their skills and experience. Businesses can achieve this by reviewing their promotions and raises to ensure that they are fair and equal for all. Greater pay transparency is one step in achieving this.
- Greater pay transparency is also an opportunity for businesses to establish their credibility and commitment towards pay equality, which they can leverage as a selling point in attracting female talent: PwC research shows that 83% of British female millennials seek out employers with a strong record on diversity, equality and inclusion. A survey by the Young Women's Trust also shows that 84% of millennial women would consider an employer's gender pay gap when applying for a job.

Enhance flexible working opportunities

- Women who return to the labour market following motherhood often face constrained employment prospects as the lack of flexible working arrangements and rigid scheduling (even for reduced hours) make it difficult for women to meet the spontaneous demands of care-giving.

- There are around 1.5m underemployed women in the UK who would like to increase their hours. This means that there are significant opportunities for flexible work practices to leverage the skills of women returning to the labour market more effectively. The increase in the availability of job-share opportunities or part-time working could encourage women who would like to work fewer hours to enter the labour market, which could increase female employment levels. Flexible working could also enable female employees who want to work longer hours, but with greater autonomy over work schedules, to address underemployment.
- This is a particular issue for more senior positions, where there is an undersupply of flexible roles. The concentration of part-time work outside of high-level jobs increases the tendency for women to work in occupations below their skill level. One way of addressing this issue is to ensure that jobs at all levels are advertised as flexible unless there is a strong case not to do so.
- There is a clear business case for greater flexibility: Studies have shown that flexible working enables firms to remain competitive and retain talent, which ultimately enhances firms' productivity and profits. Businesses are also better positioned to fully leverage the talent of its female employees by ensuring that they undertake roles suited to their skills and experience.

Implications for businesses

Supporting women returning to work post-motherhood

- Research from the Institute of Directors finds that 40% of British women in senior positions who take career breaks to have children never return to work. This has been attributed to two conflicting observations; on the one hand, the confidence of women in returning to their positions is often low, while at the same time they are, understandably, unwilling to return to work in a more junior position to the one they occupied before they left.
- Returnships are a recent initiative that seek to support women (and men) in their transition back into the labour market following a career break. An example is PwC's Back to Business programme, which includes training and support to help people return to the workplace, and provides opportunities for a permanent role upon completion of the programme. There are clear economic benefits from encouraging high-performing women back into the workforce.

Supporting women's career advancement

- Businesses could also ensure that they establish an organisational culture and performance review process that fairly recognises the skills and experience of its female employees. As businesses change to suit the needs of a knowledge economy, it needs to move away from monitoring employee performance based on inputs such as working hours, towards measuring outcomes instead.

- Sponsorship and mentoring opportunities by senior colleagues to grow and advance careers are also effective ways of retaining highly qualified employees of both sexes. Similarly, schemes that support parents as they transition back into the workplace such as training, mentoring and networking opportunities also make it more likely that women will return to work. These changes benefit businesses by creating a pipeline of women to progress to higher paid jobs and leadership roles within the organisation, which enhances the return on firms' investment in training and career support.

Monitoring progress

- Companies need to put in place a process for monitoring gender equality targets in the same way as financial targets. These metrics should include indicators that measure progress at the company level, as a way of measuring the corporate return on investment in enhancing gender equality, as well as monitoring the success of individual business units or departments in promoting gender equality within their teams. These should also be embedded in performance discussions to ensure that those responsible are held accountable for meeting these targets and in effecting genuine organisational changes to enhance gender equality.





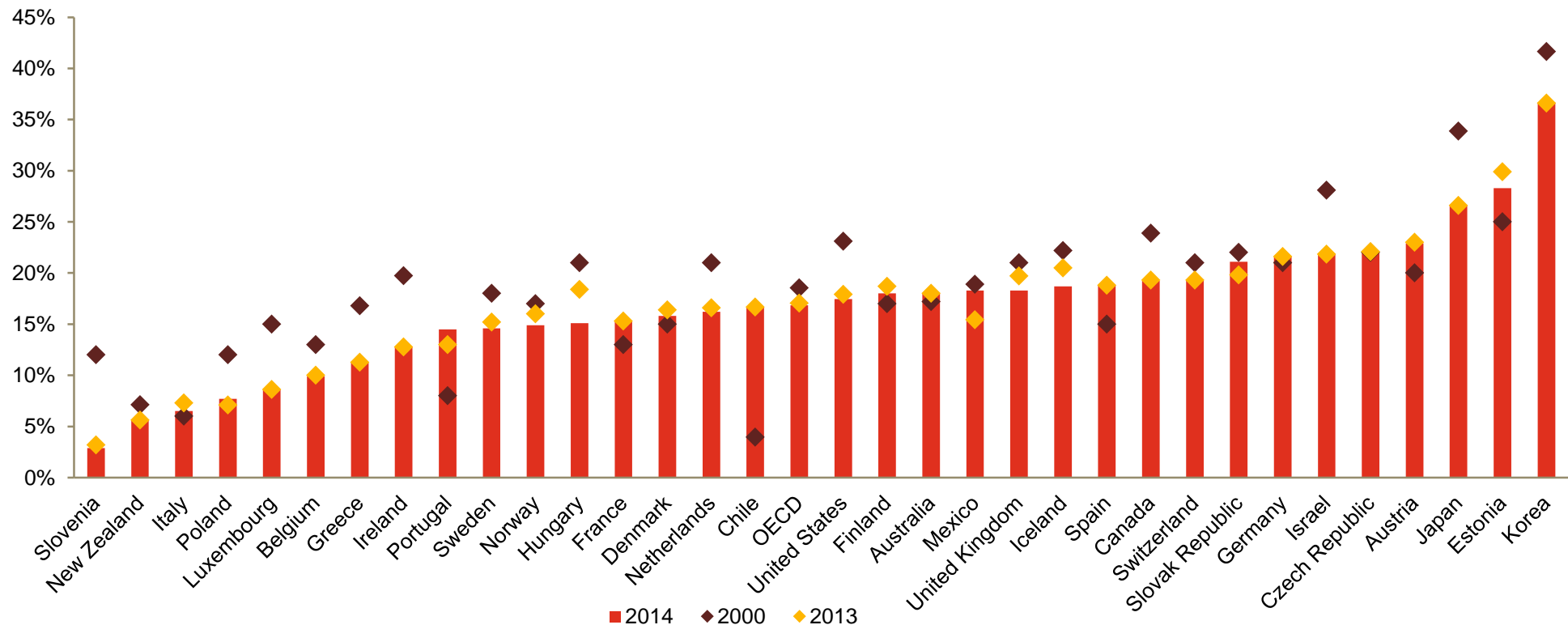
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Long term trends in female economic empowerment indicators

The gender wage gap

The average gender wage gap across OECD countries remains largely unchanged from 2013. This masks the worsening gap in Mexico and Portugal where the wage gap has widened by 3pp and 2pp respectively. The UK has seen a narrowing of its gender wage gap from 21% in 2000 to 18% in 2014. Conversely, Chile has increased its gap from 4% to 17% over the same period.

Figure 9: Gender wage gap, 2000 – 2014

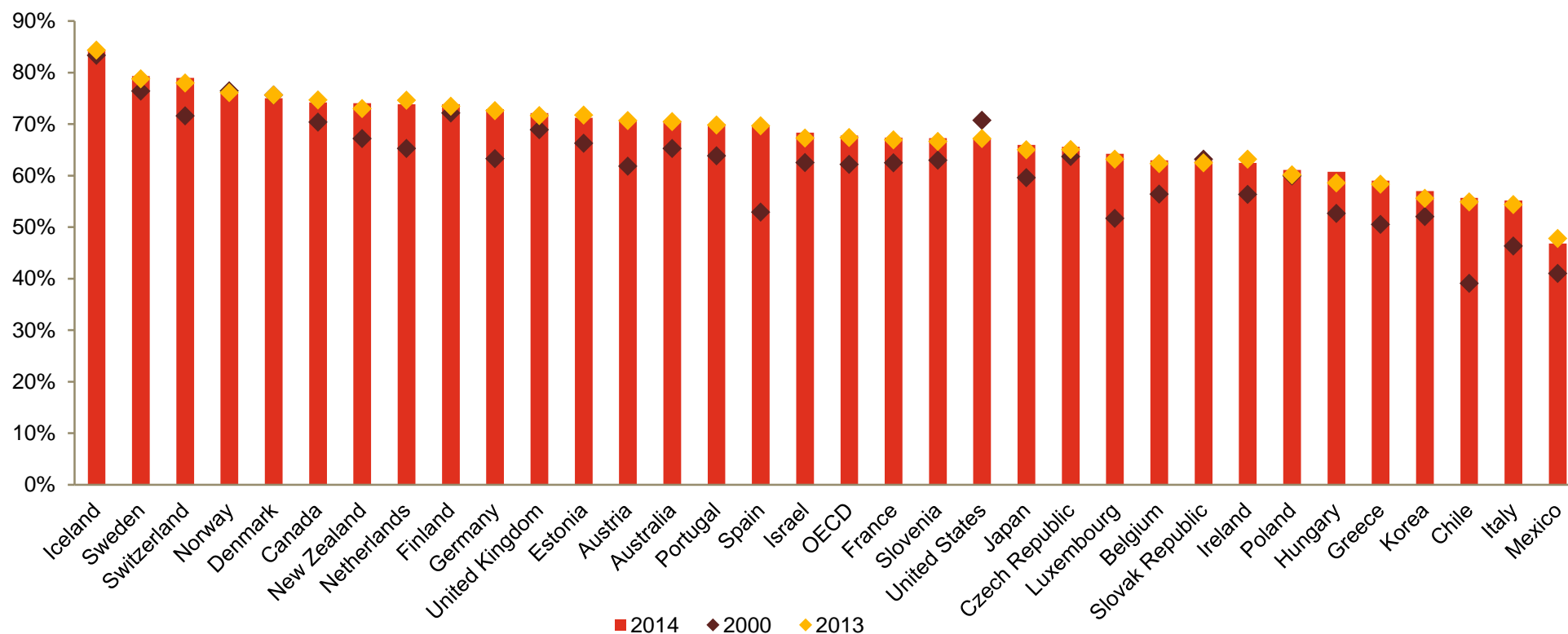


Source: OECD, Eurostat. OECD data refers to the difference in the median earnings for all full-time employees, while Eurostat compares the mean earnings. Data from 2013/2012 used where 2014 data not yet available.

Female labour force participation

Overall female labour force participation rates increased slightly across the OECD, with the biggest gain in Hungary. The UK's participation rate remained unchanged between 2013 and 2014 but has risen by 3pp since 2000.

Figure 10: Female labour force participation rate, 2000 – 2014

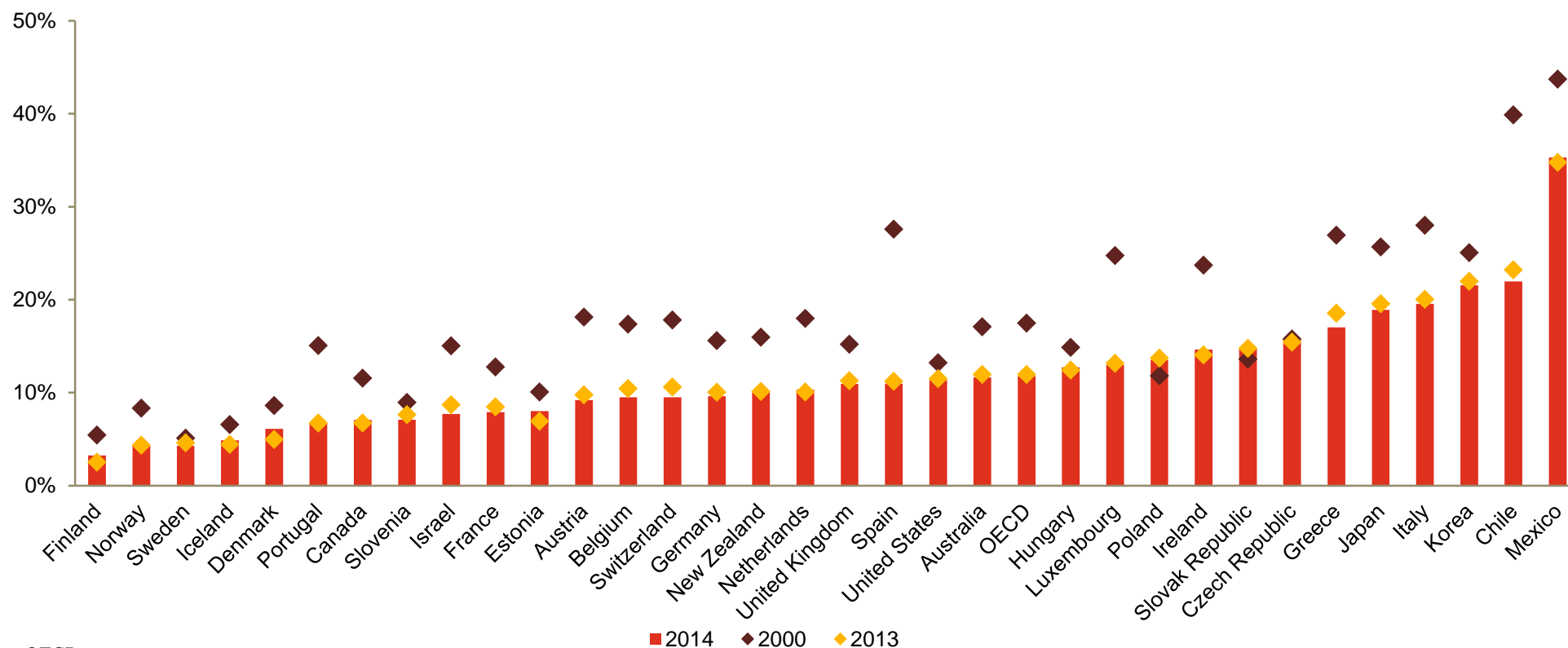


Source: OECD

Gap between male and female labour force participation

The gap in participation rates remained unchanged on average across OECD countries between 2013 and 2014. The biggest narrowing in gaps was seen in Greece and Chile with Finland maintaining its position as the OECD country with the smallest male/female labour force participation gap.

Figure 11: Gap between the male and female labour force participation rate, 2000 – 2014

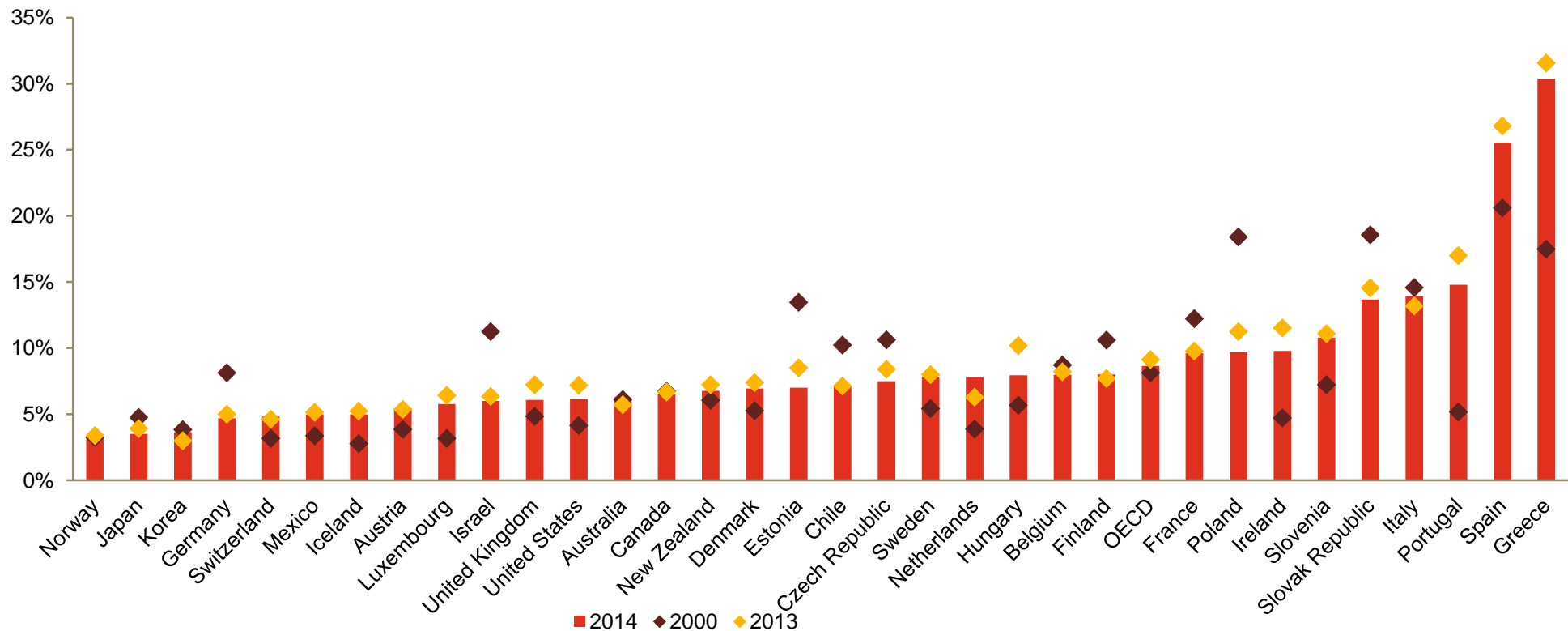


Source: OECD

Female unemployment

Female unemployment remained roughly constant on average across the OCED. The largest improvements were observed in Hungary, Ireland and Portugal with a worsening in performance for the Netherlands. The UK saw a reduction of one percentage point in female unemployment in 2014.

Figure 12: Female unemployment rate, 2000 – 2014

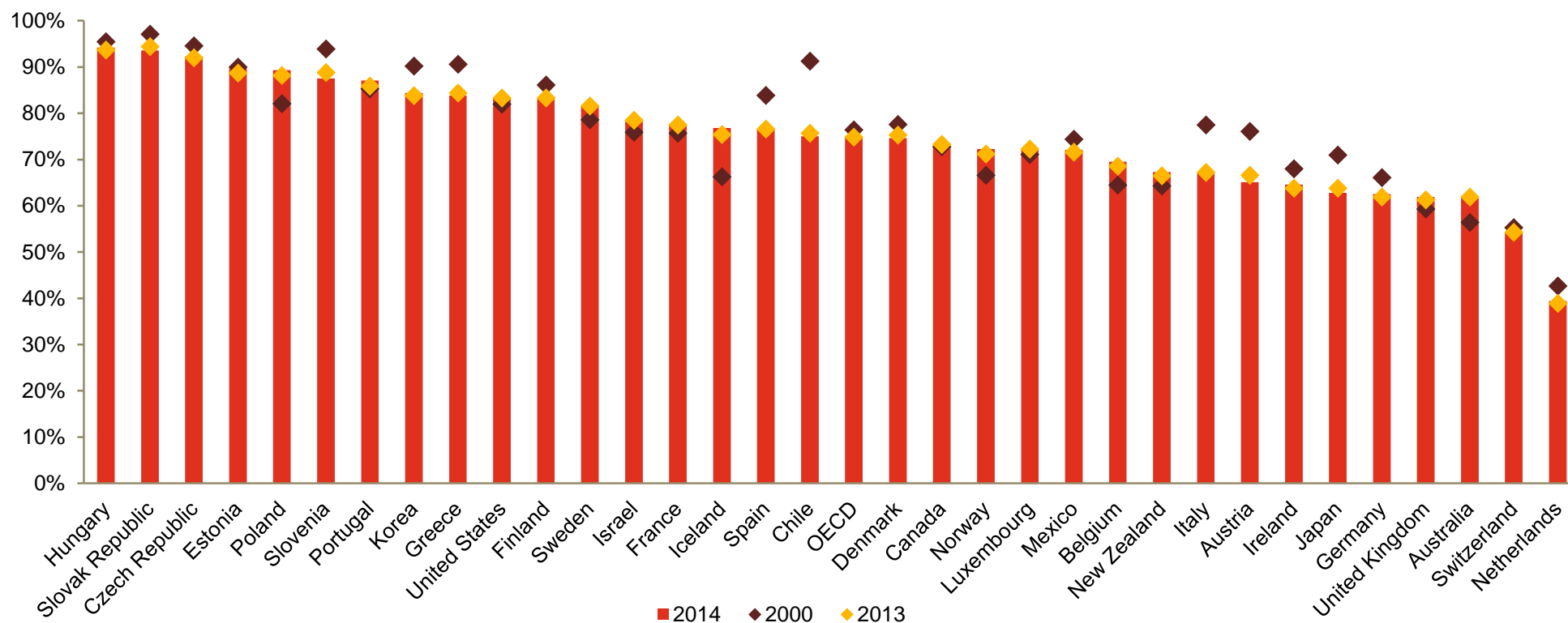


Source: OECD

Female full-time employment rate

Iceland saw the biggest increase in its full-time employment rate for women between 2013 and 2014. However, the female full-time employment rate fell in Slovenia, Austria and Japan. Despite a rising female full-time employment rate in the UK since 2000, the UK still continues to lag behind the OECD average on this indicator.

Figure 13: Female full-time employment rate, 2000 – 2014



Source: OECD



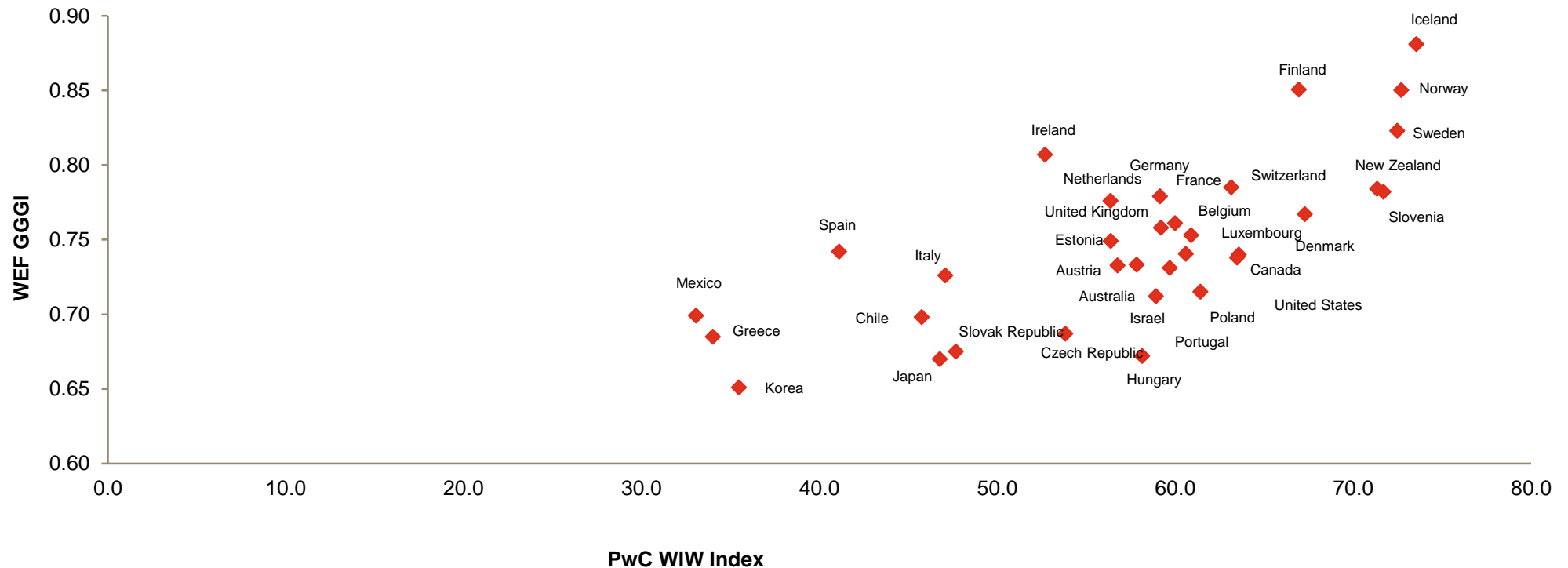
Comparisons with other measures

5

Comparing PwC WIW Index performance against the WEF Global Gender Gap Index for 2015

The WEF GGG Index provides a measure of the gap between men and women across countries. It is composed of 4 sub-indices: Economic participation and opportunity, education attainment, health and survival and political empowerment. The index is highly correlated with the PwC WIW Index with a correlation coefficient of 0.73.

Figure 14: PwC WIW Index performance vs the WEF Global Gender Gap Index 2015

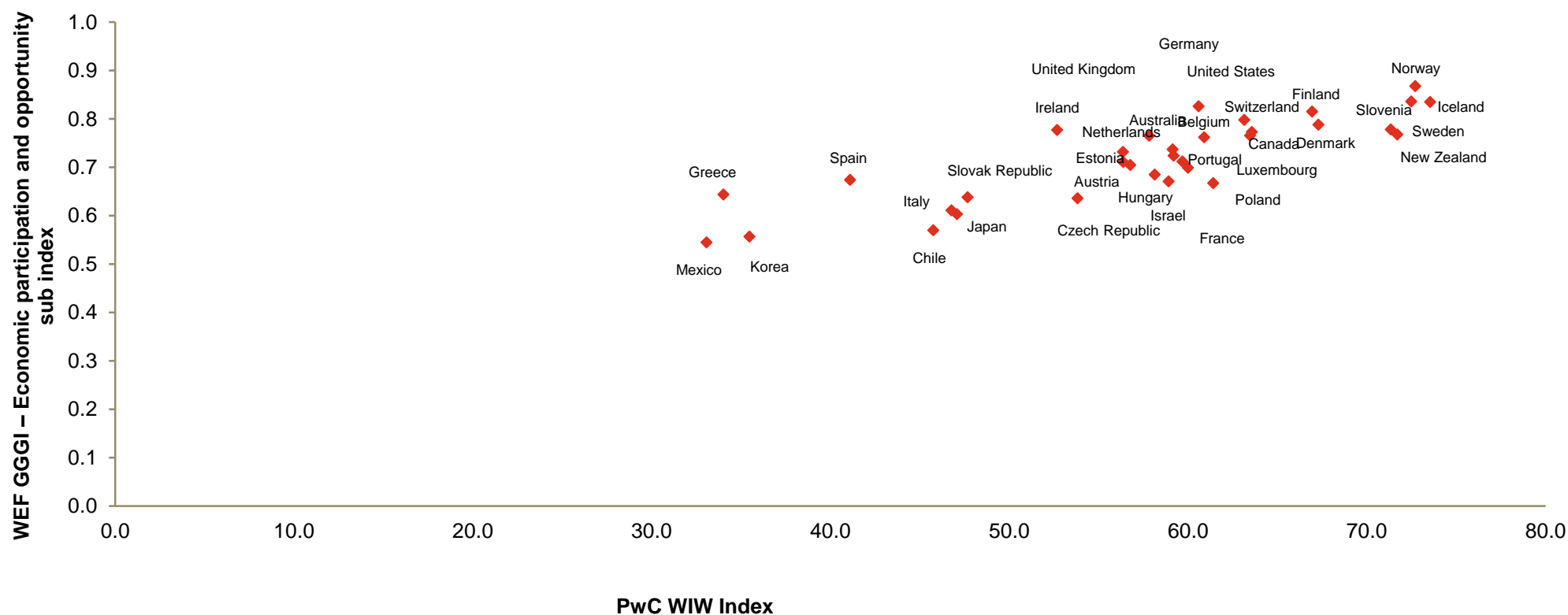


Source: PwC analysis, WEF

Comparing PwC WIW Index performance against the WEF GGGI Economic participation and opportunity sub-index for 2015

A comparison of countries' performance on the PwC WIW Index and the economic participation and opportunity sub-index of the WEF GGGI Index indicates a strong positive correlation of 0.85.

Figure 15: PwC WIW Index performance vs the WEF GGGI Economic participation and opportunity sub-index 2015

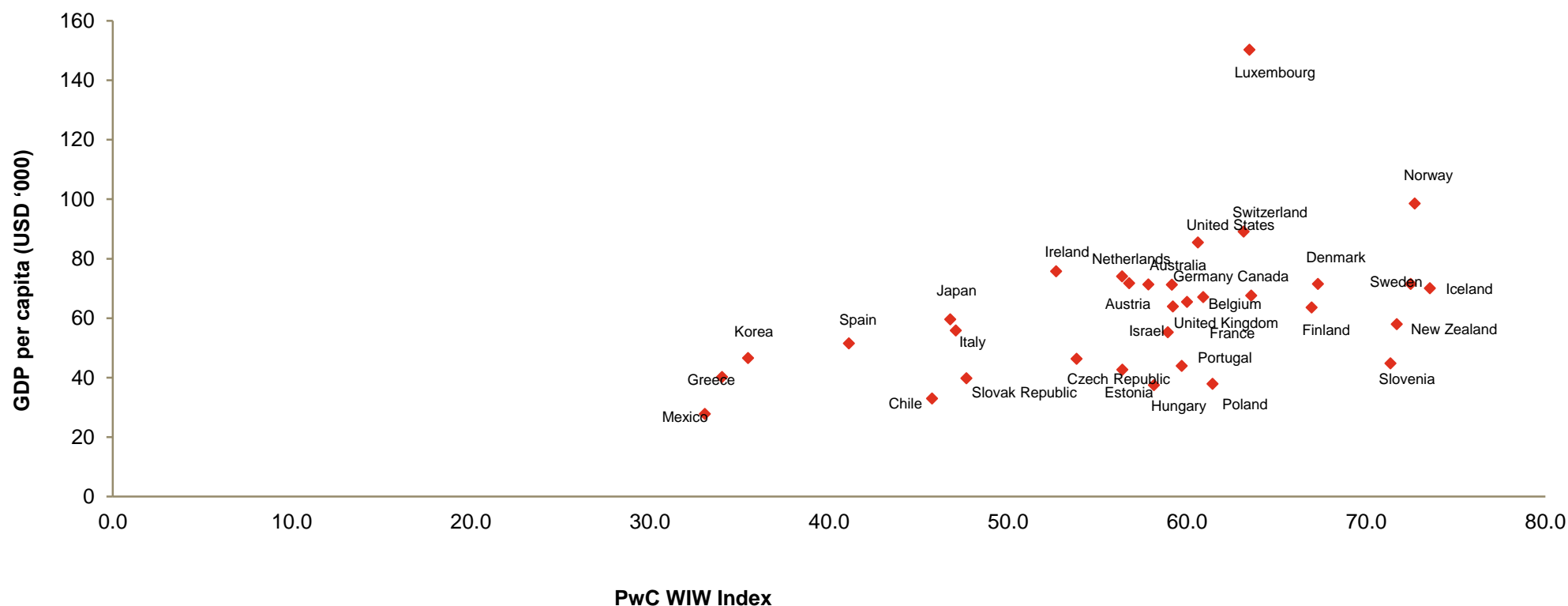


Source: PwC analysis, WEF

Comparing PwC WIW Index performance against GDP per capita

There is a positive correlation, with a correlation coefficient of 0.47, between PwC WIW Index performance and a country's GDP per capita, indicating a potential relationship between female economic empowerment and GDP.

Figure 16: Correlation between PwC WIW Index and GDP per capita, 2014

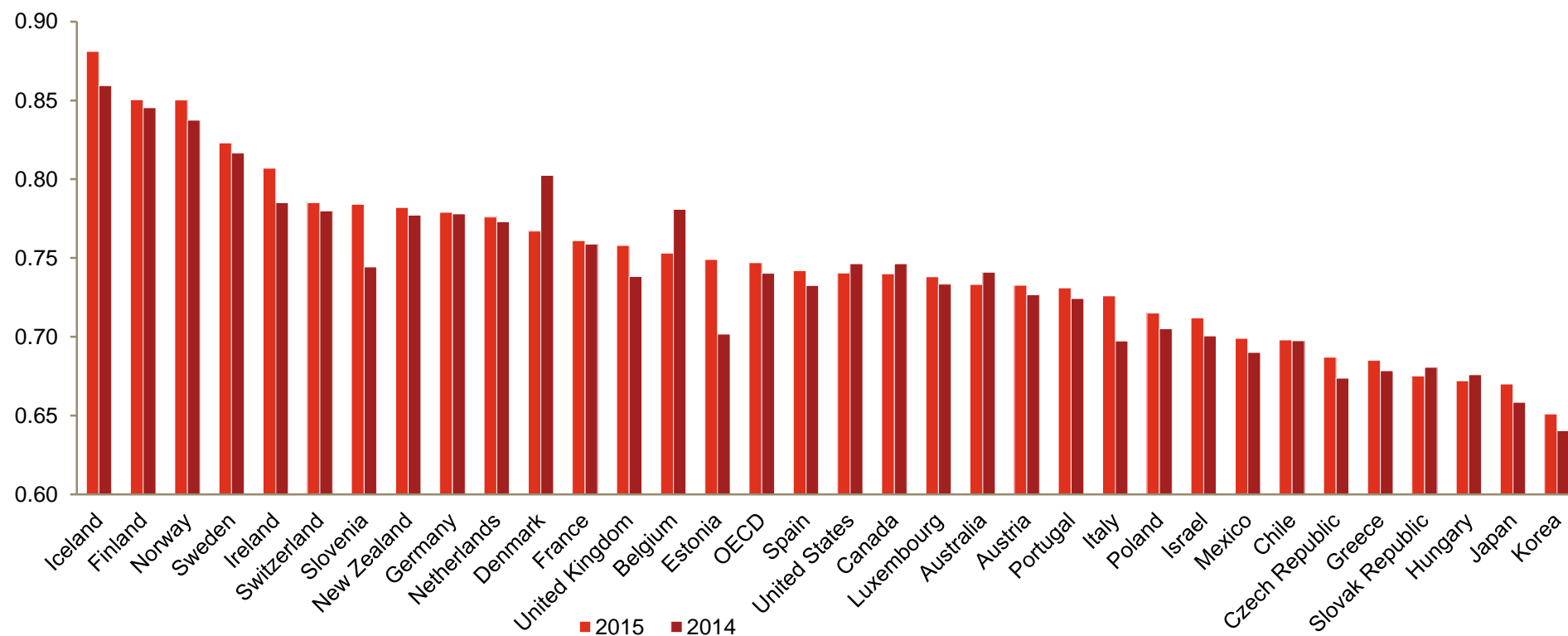


Source: PwC analysis, OECD

WEF Global Gender Gap Index 2015

The average performance of OECD countries on the Global Gender Gap Index has improved between 2014 and 2015, with the biggest gains made in Ireland, Slovenia and Estonia. As with the PwC WIW Index, Iceland, Norway and Sweden appear within the top 4 OECD countries in terms of performance. Finland comes in at 2nd place compared to a 7th place position in the PwC WIW Index.

Figure 17: WEF Global Gender Gap Index, 2015 vs. 2014

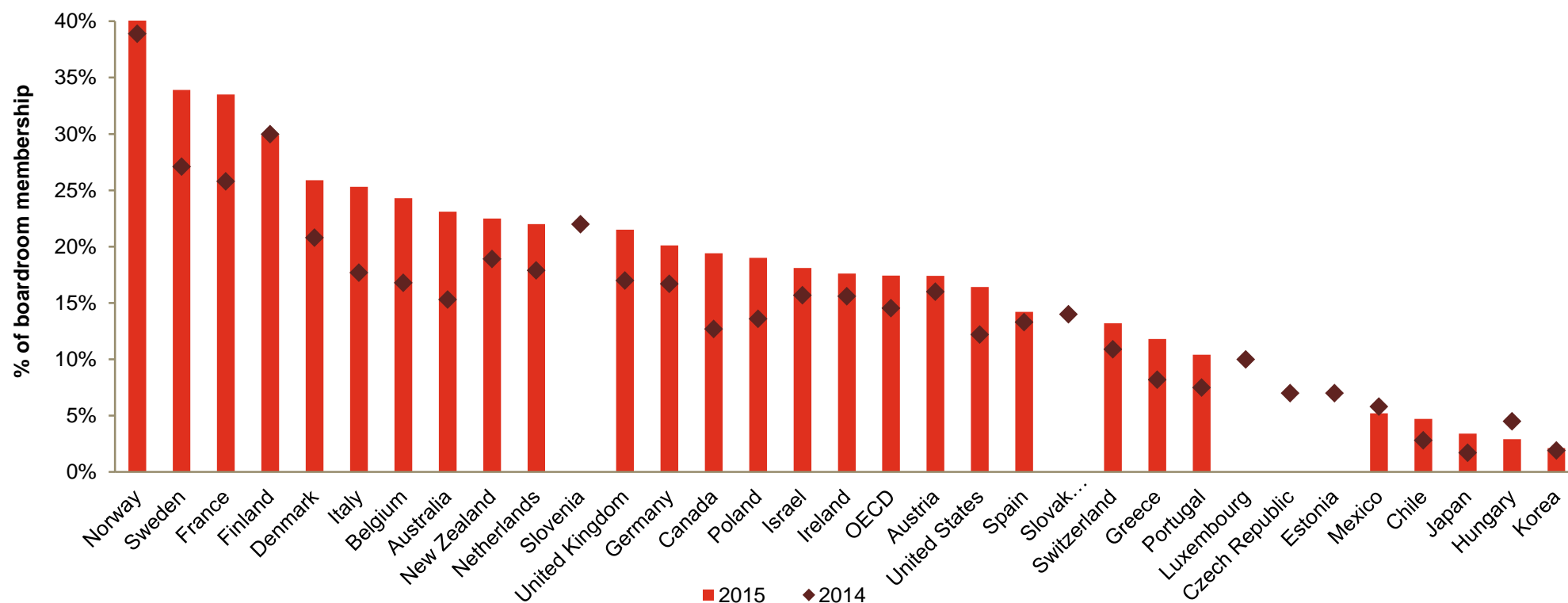


Source: WEF Global Gender Gap report 2015

Female boardroom membership

Female boardroom membership increased across the OECD by around 3 percentage points. The largest increases were observed in countries with specific targets for female board membership namely Italy, Belgium, France and Sweden. While the majority of OECD countries have seen growth in female boardroom representation, Mexico, already near the bottom of the ranks on this measure saw a slight decline by 1 percentage point.

Figure 18: Female boardroom membership in publicly listed companies, 2015 vs. 2014



Source: MSCI ESG Research (Global Director Universe), Eurostat

Female boardroom membership

Legislative mandates on female boardroom membership

- Some OECD countries have introduced mandated quotas for female boardroom membership. Norway was the first country in the world to implement a gender quota for its listed companies with possible dissolution for companies that fail to comply. This is reflected in its female representation on boards which has been increasing over time and has been consistently higher than its peers since 2010, the latest available historical data.
- Belgium, France, Italy, and the Netherlands have specific targets for listed companies of 33%, 40%, 33% and 30% female boardroom membership respectively. While research from the MSCI suggests that none of these 4 countries have achieved their mandates, they all made significant progress between 2014 and 2015. Denmark, Greece, Austria, Portugal and Finland have similar rules for state-owned company boards.
- The German cabinet also recently approved legislation to introduce a 30% quota for women in boardrooms and has seen progress over the past year towards achieving this.

Voluntary recommendations for female boardroom membership

- Even without legislative mandates, the majority of OECD countries have seen improvements in female representation on boards through recommended targets, or diversity reporting requirements.

- In the UK, the Davies report recommended a voluntary target of 25% to be achieved by 2015 for FTSE100 companies. A 5 year summary, published in October 2015, reveals that the UK has been successful in meeting this target with 26.1% representation of women on FTSE100 boards. This has prompted extended recommendations for increasing the voluntary target for women's representation on boards of FTSE 350 companies to a minimum of 33% by 2020. While trends suggest that greater equity on boards was being considered even prior to the Davies recommendations with small increases in female boardroom representation in the preceding years, this accelerated post the recommendations.
- In the United States, voluntary recommendations have been preferred over legislation to address the issue of gender equity in boardrooms. However, until recently progress had been slow. In 2014, the 30% Club launched in the US to promote gender equity, with targets of achieving 30% on S&P 500 boards by 2020. In the past year, potentially as a result, US female boardroom representation has grown by 4pp to 16% where previously the percentage was stagnant at 12%.
- In 2013, the European Parliament passed legislation to fill 40% of non-executive board positions with female directors by 2020. This follows in the footsteps of other EU countries with similar requirements. While this legislation is still being considered by the EU Council, it has brought increased attention to gender equity in the boardroom as a voluntary recommendation.

Mandatory quotas or voluntary targets?

- There is much debate over the relative benefits of mandatory quotas versus voluntary targets for female boardroom membership. Some advocates for gender diversity argue that the increased pressure on businesses from mandated requirements pushes the gender diversity agenda further up in terms of business priorities.
- Others, however, argue that attempts to positively discriminate in favour of women through legal quotas may unintentionally create negative discrimination against men; businesses unable to meet quotas may be incentivised to recruit less qualified women in favour of more qualified men. It is also argued that this will undermine women who achieve board positions on merit.

Benefits of increased female boardroom membership

- Regardless of how national policy decides it is best achieved, and aside from an equity argument in favour of gender diversity, increased female boardroom membership has been shown to bring real benefits to businesses.
- Women are thought to bring new perspectives and challenge to the boardroom, resulting in better decision-making. Research by Catalyst, referenced in a 2012 publication by the Harvard Business Review, also reveals that Fortune-500 companies with the highest percentages of women directors on their boards reported a 52% higher return on equity than others.

Comparing PwC WIW Index performance against other measures – Summary

The PwC WIW Index is positively correlated with GDP per capita, and with other measures of female empowerment including: the World Economic Forum's Global Gender Gap Index (WEF GGGI), the World Economic Forum's Economic Participation and Opportunity Index, (a component sub-index of the WEF GGGI) and female boardroom membership. Perhaps unsurprisingly, the PwC WIW Index is most strongly correlated with the WEF's economic participation and opportunity sub-index which, similar to the PwC WIW Index, seeks to provide a measure of female economic empowerment.

Correlation coefficient	WEF Global Gender Gap Index	WEF Economic Participation and Opportunity Sub-Index	GDP per capita	Female Boardroom Membership
PwC WIW Index	0.73	0.85	0.47	0.62





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Technical appendix: Data and methodology

Comparison of country results, 2012 – 2014

	2012		2013		2014	
	Index	Rank	Index	Rank	Index	Rank
Iceland	72.5	2	71.9	1	73.6	1
Norway	72.5	3	71.6	2	72.7	2
Sweden	70.2	4	71.3	3	72.5	3
New Zealand	68.6	5	70.4	4	71.7	4
Slovenia	73.3	1	70.4	5	71.4	5
Denmark	66.6	6	67.5	6	67.3	6
Finland	66.0	7	66.9	7	66.9	7
Canada	63.1	8	63.8	8	63.6	8
Luxembourg	62.2	9	62.1	9	63.5	9
Switzerland	61.2	11	62.1	10	63.1	10
Poland	60.0	12	59.5	11	61.4	11
Belgium	59.1	13	59.5	12	60.9	12
United States	57.5	16	59.2	14	60.6	13
France	58.7	14	59.2	13	60.0	14
Portugal	57.1	17	58.4	15	59.7	15
United Kingdom	55.5	21	56.3	21	59.2	16
Germany	56.6	18	58.3	16	59.1	17
Israel	56.5	19	57.4	19	58.9	18
Hungary	50.2	25	52.0	24	58.1	19
Australia	61.9	10	58.2	17	57.8	20
Austria	56.2	20	56.6	20	56.8	21
Estonia	52.9	23	54.3	22	56.4	22
Netherlands	58.2	15	58.1	18	56.4	23
Czech Republic	51.6	24	52.7	23	53.8	24
Ireland	54.5	22	51.6	25	52.7	25
Slovak Republic	45.6	27	47.8	26	47.7	26
Italy	47.8	26	46.4	27	47.1	27
Japan	43.9	29	45.6	28	46.8	28
Chile	44.0	28	44.7	29	45.7	29
Spain	40.4	30	39.7	30	41.1	30
Korea	34.8	33	34.9	32	35.5	31
Greece	38.5	31	31.7	33	34.0	32
Mexico	37.4	32	36.1	31	33.1	33
OECD average	56.2		56.3		57.2	

Source: PwC analysis using data from OECD and Eurostat

Summary statistics

Top 17 countries in the PwC WIW Index

Country	Wage gap		Labour force participation				Female unemployment		Women in full-time employment	
	Difference between female and male median wages, %		% Female		% Male		% Female		% of total female employment	
	2013	2014	2013	2014	2013	2014	2013	2014	2013	2014
Iceland	21%	19%	84%	84%	89%	89%	5%	5%	75%	77%
Norway	16%	15%	76%	76%	80%	80%	3%	3%	71%	72%
Sweden	15%	15%	79%	79%	83%	84%	8%	8%	82%	82%
New Zealand	6%	6%	73%	74%	83%	84%	7%	7%	67%	67%
Slovenia	3%	3%	67%	67%	74%	74%	11%	11%	89%	88%
Denmark	16%	16%	76%	75%	81%	81%	7%	7%	75%	75%
Finland	19%	18%	73%	74%	76%	77%	8%	8%	83%	83%
Canada	19%	19%	75%	74%	81%	81%	7%	6%	73%	73%
Luxembourg	9%	9%	63%	64%	76%	77%	6%	6%	72%	72%
Switzerland	19%	19%	78%	79%	89%	88%	5%	5%	54%	54%
Poland	7%	8%	60%	61%	74%	75%	11%	10%	88%	89%
Belgium	10%	10%	62%	63%	73%	72%	8%	8%	69%	70%
United States	18%	17%	67%	67%	79%	78%	7%	6%	83%	83%
France	15%	15%	67%	67%	75%	75%	10%	10%	78%	78%
Portugal	13%	15%	70%	70%	76%	77%	17%	15%	86%	87%
United Kingdom	20%	18%	72%	72%	83%	83%	7%	6%	61%	62%
Germany	22%	22%	73%	73%	83%	83%	5%	5%	62%	63%

Source: OECD, Eurostat

Summary statistics

Next 16 countries in the PwC WIW Index

Country	Wage gap		Labour force participation				Female unemployment		Women in full-time employment	
	Difference between female and male median wages, %		% Female		% Male		% Female		% of total female employment	
	2013	2014	2013	2014	2013	2014	2013	2014	2013	2014
Israel	22%	22%	67%	68%	76%	76%	6%	6%	79%	78%
Hungary	18%	15%	59%	61%	71%	73%	10%	8%	94%	94%
Australia	18%	18%	70%	71%	82%	82%	6%	6%	62%	62%
Austria	23%	23%	71%	71%	80%	80%	5%	5%	67%	65%
Estonia	30%	28%	72%	71%	79%	79%	8%	7%	89%	90%
Netherlands	17%	16%	75%	74%	85%	84%	6%	8%	39%	39%
Czech Republic	22%	22%	65%	66%	80%	81%	8%	7%	92%	92%
Ireland	13%	13%	63%	62%	77%	77%	12%	10%	64%	65%
Slovak Republic	20%	21%	62%	63%	77%	78%	15%	14%	94%	94%
Italy	7%	7%	54%	55%	74%	75%	13%	14%	67%	67%
Japan	27%	27%	65%	66%	85%	85%	4%	4%	64%	63%
Chile	17%	17%	55%	56%	78%	78%	7%	7%	76%	75%
Spain	19%	19%	70%	70%	81%	81%	27%	26%	77%	76%
Korea	37%	37%	56%	57%	78%	79%	3%	4%	84%	84%
Greece	11%	11%	58%	59%	77%	76%	32%	30%	84%	84%
Mexico	15%	18%	48%	47%	83%	82%	5%	5%	72%	72%
OECD average	17%	17%	67%	68%	79%	80%	9%	9%	75%	75%

Source: OECD, Eurostat

Summary statistics: Long-term impacts of increasing female employment and closing the gender wage gap

Potential GDP boost from equating female employment rates to Swedish levels			Potential boost to female earnings from closing the gender wage gap	
	%	US\$ billions	%	US\$ billions
Australia	10.4%	116	18.0%	43
Austria	8.8%	36	22.9%	18
Belgium	15.3%	75	9.9%	9
Canada	4.9%	79	19.2%	69
Chile	18.7%	73	Data unavailable	Data unavailable
Czech Republic	5.9%	20	22.1%	9
Denmark	4.2%	11	15.8%	9
Estonia	2.7%	1	28.3%	2
Finland	3.3%	7	18.0%	8
France	10.5%	274	15.3%	71
Germany	7.6%	285	21.6%	155
Greece	31.1%	88	11.3%	4
Hungary	10.2%	25	15.1%	6
Iceland	0.0%	0	Data unavailable	Data unavailable
Ireland	18.7%	43	12.8%	5
Israel	7.4%	20	21.8%	9
Italy	26.3%	568	6.5%	20
Japan	11.3%	526	26.6%	203
Korea	12.7%	214	36.7%	109
Luxembourg	11.5%	6	8.6%	1
Mexico	26.9%	580	18.3%	38
Netherlands	16.1%	131	16.2%	28
New Zealand	6.7%	11	Data unavailable	Data unavailable
Norway	2.3%	8	14.9%	9
Poland	12.0%	115	7.7%	12
Portugal	9.3%	28	14.5%	7
Slovak Republic	11.7%	18	21.1%	4
Slovenia	8.1%	5	2.9%	0
Spain	19.5%	305	18.8%	48
Sweden	0.0%	0	14.6%	12
Switzerland	6.1%	30	19.3%	20
United Kingdom	9.2%	238	18.3%	96
United States	6.9%	1201	17.5%	593
OECD average	10.8%	156	17.2%	54

Source: PwC analysis, OECD, Eurostat

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 countries 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 previous slide.
- 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 all 33 countries set by definition to 50 in 2000. The average index value for 2014 can, however, be higher or lower than this 2000 baseline.

Data sources

- Labour market data obtained for 2014, except where specified. All data provided by the OECD with the exception of data on the wage gap, which were 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, New Zealand and United States.
- Methodological differences account for differences between data on the gender wage gap reported by the OECD and Eurostat. The OECD wage gap measures the difference in median earnings for all male and female full-time employees in all sectors, whereas the headline Eurostat wage 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.

PwC WIW Index methodology

Variables included in scoring

<i>Variable</i>	<i>Weight</i>	<i>Factor</i>	<i>Rationale</i>
Gap between female and male earnings	25%	Wider wage gap penalised	Earnings equality underpins the fundamental principle of equal pay for equal work.
Female labour force participation rate	25%	Higher participation rates given higher score	Female economic participation is the cornerstone of economic empowerment, which is a factor of the level of skills and education of women and conducive workplace conditions, and broader cultural attitudes outside the workplace (e.g. towards shared childcare and distribution of labour at home).
Gap between female and male labour force participation rates	20%	Higher female participation rate relative to male participation rate given higher score	Equality in participation rates reflect equal opportunities to seek and access employment opportunities in the workplace.
Female unemployment rate	20%	Higher unemployment penalised	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.
Share of female employees in full-time employment	10%	Higher share of full-time employment given higher score	The tendency for part-time employment may adversely affect earnings, pensions and job security. But given a lower weight in the index since some women may prefer part-time jobs to fit flexibly with caring roles.

Methodology for calculating potential GDP impacts from increasing employment rates

We break down GDP in the following way:

$$\text{GDP} = \text{Female FT workers * GDP per FT worker} + \text{Male FT workers * GDP per FT worker} + \text{Female PT workers * GDP per PT worker} + \text{Male PT workers * GDP per PT worker}$$

We consider the potential boost to GDP under two different scenarios, holding the employment rate for male part-time (PT) and full-time (FT) workers constant:

- Increasing the female PT and FT employment rates to that of a benchmark country.
- Increasing the female PT and FT employment rates to that of the male PT and FT employment rates in the same country

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.

Methodology for measuring the gains from closing the gender wage gap

We consider the potential increase to total female earnings from completely closing the gender wage gap such that the average annual earnings for women is equal to the average annual earnings for men. This allows us to calculate the average male and female earnings from data on the total male and female earnings. We breakdown total male and female earnings as follows:

$$\text{Total earnings} = \frac{\text{Average male earnings} * \text{Male workers}}{\text{Male workers}} + \frac{\text{Average female earnings} * \text{Female workers}}{\text{Female workers}}$$

where:

$$\text{Average male earnings} = \frac{\text{Average female earnings}}{\text{Average female earnings}} * (1 + \text{gender wage gap})$$

In order to estimate the potential gains from closing the gender wage 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, which form the basis of comparison for the gender wage gap in OECD data, are equivalent to mean wages.
- The gender wage gap is closed by increasing female wages to match male wages rather than by decreasing male wages to match female 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 ¹
- Estimates of labour demand elasticity range from - 0.5 to - 0.3 ²

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 for the following reasons:

- The gender wage 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. ³
- The 64+ age group has not been included in the analysis and therefore the increase in female earnings within this age group from closing the gender wage gap has not been accounted for.

¹ Source: Blundell, R. et al. (2013) 'Female Labour Supply, Human Capital and Welfare Reform', IFS Working Paper W13/10.

² Source: Merikull, J. and Room, T. (2014). 'Are foreign-owned firms different? Comparison of employment volatility and elasticity of demand', European Central Bank Working Paper Series No 1704.

³ Source: ONS (2015) 'Annual Survey of Hours and Earnings, 2015 Provisional Results'.

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