

BlackRock.

Lifting global growth by investing in women

Long-term capitalism at BlackRock

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Our key conclusions

The global economy faces a confluence of structural challenges, including aging populations, slowing productivity growth, and the headwinds of deglobalization. Yet there are untapped resources that could help to lift economic activity: women, who represent just 39% of the global labor force.¹ Nearly half (48%) of women between the ages of 15-64 are currently out of the labor force globally, versus 20% of men.²

There has been significant progress over the past two decades, as the share of women in the labor force has risen by 15ppts across OECD economies,³ driven by local reforms, such as higher retirement age and investments in areas ranging from education to childcare. Yet the participation rate remains as much as 15ppt below the level for men, suggesting that untapped growth potential is being left on the table.

- We see these untapped resources as an opportunity. Investing in women to bring them into the labor force – and removing barriers to help them obtain well-paying jobs, access credit, and generate savings – has the potential to yield long-term returns through higher economic growth in developed (DM) and particularly in emerging markets (EM).
- As a long-term asset manager and a fiduciary to our clients, managing a broad range of asset classes – including DM and EM government and corporate bonds and equities – we are keen to uncover additional sources of growth to help improve the credit-worthiness and earning potential of our investments.

65%

Average female labor force participation across OECD economies

~5%

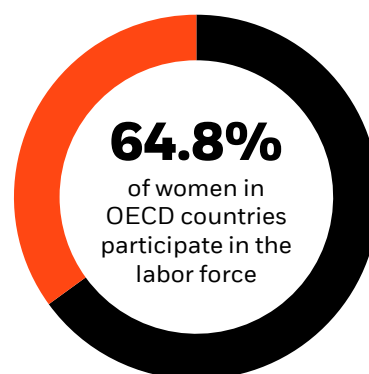
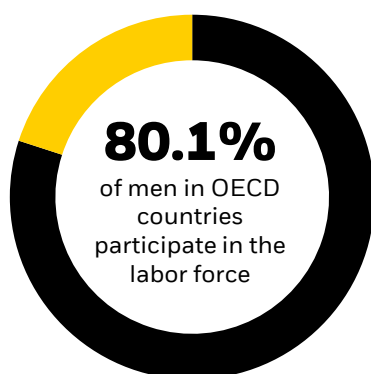
Projected increase in economic output in OECD with a 10% rise in female labor force participation⁴

12%

Average gender wage gap across OECD economies

~2.5%

Projected GDP increase in OECD if wage gap were halved



Source: OECD Employment Outlook 2022: Building Back More Inclusive Labor Markets.

¹ ILOSTAT and World Bank, 2021 estimate for the world.

² ILOSTAT and World Bank, 2019 estimate for the world.

³ Source: OECD for 15ppt. See appendix for full list of OECD countries as of 2022, and the country groupings used in our analysis.

⁴ Our analysis simply looks at the direct impact from increased labor; on page 11, we discuss additional considerations, such as the potential positive impact of bringing previously unpaid work into GDP, the complementarity of women's and men's work, and potential downward pressure on men's wages.

1.

In this context, we estimate that raising the average female labor force participation rate across OECD countries by 10ppts (from ~65% to the nearly 75% seen in Germany) could yield a roughly 5% increase in economic output.

Breaking the world into more granular peer groups that better reflect our investment universe, with the female labor force participation rate for each country rising to match ‘the best’ among peers, we find that the impact on economic output ranges from ~5% in DM economies to ~16% in EM.

2.

Higher female labor force participation may also help offset demographics-driven labor shortages in developed countries, as has occurred in Japan over the past two decades.

3.

Beyond increasing women’s participation, we also calculate that narrowing the gender wage gap by roughly half, all else equal, could increase GDP in the OECD regions by an average of ~2.5%.

The gender wage gap has been steadily narrowing over the last decade. However, men continue to earn more than women across the world, with an average 12% gap in the OECD as of 2021.⁵ Some of that is due to differences in education and sectoral preferences, but more than two-thirds of the pay gap remains unexplained.

4.

Larger investments in education and child care are needed to bring women into the labor force.

This is particularly the case in EM, where women’s educational attainment remains lower.

Developed economies that have invested more in educating women have higher share of women in the labor force. Yet, we believe, they could benefit further from higher public spending on childcare and more generous paternal leave, which have coincided with higher female labor force participation rates.

5.

Investment is also needed globally to ensure that women’s education is aligned with market demand.

Education – specifically the type of education and degree obtained – is an important driver of the gender pay gap in both emerging and developed economies.

This is relevant, as research suggests that gender-diverse environments tend to outperform. In our upcoming work, we will explore the linkages between greater diversity at a firm level and financial performance in more detail.

“

Despite substantial progress in recent decades, women remain an untapped resource across the globe: the average female labor force participation rate of 64.8% across OECD economies is still well below the 80.1% rate among men. Women are less likely to be in work than men, earn less than men on average and are less likely to be in leadership positions.”

Women in the labor force: an investment opportunity

We show that bringing more women into the labor force can increase the economic pie, particularly in emerging markets, while helping to offset the negative growth impact of aging populations in the developed world. Across the OECD countries,⁶ raising the female labor force participation rate to the same level seen in Germany today could translate into a ~5% rise in economic output. In emerging markets, the impact could be as much as 3x as large.

Positive momentum. . .

The share of women aged 15-64 in the labor force has risen around 15 percentage points across OECD countries since the turn of the century, while the rate for their male peers has remained mostly unchanged (see Chart 1).⁷ Geographically, there has been a steep increase in women's labor-force engagement in Japan and a material boost in Western Europe.

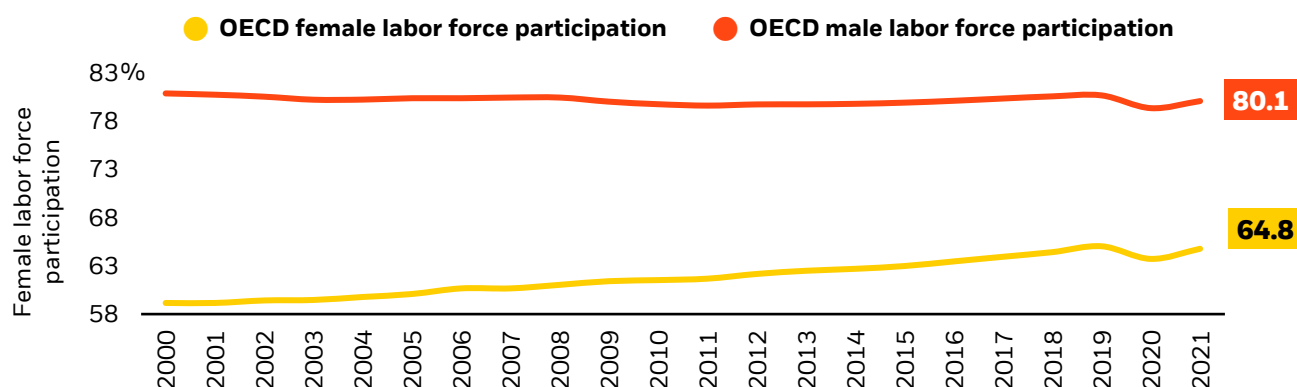
● In Japan, this increase coincided with an intentional set of policy measures (see box on Japan, p. 12), including expanded childcare

● provisions and generous parental leave.

In Western Europe, the improvement has been led by women in older age groups who are now staying in the labor force for longer – potentially due to increases in the retirement age, which have disproportionately affected women. In addition, years of investments in educating women as well as better childcare coverage and parental leave have encouraged younger women to join work in larger numbers, alongside changes in tax incentives and more flexible work arrangements that benefit both genders.⁸

Chart 1: Women's labor force participation rate has risen in OECD countries even as men's has barely changed

Female and male labor force participation, OECD economies, 2000-2021



Source: OECD, as of December 2021.

⁶ See appendix for full list of OECD countries as of 2022, as well as the country groupings used in our analysis.

⁷ Country variations are notable; over the last 30 years, men's labor force participation rate has either declined notably (US and UK) or

moderately (Eurozone), while the female rate has either stagnated (US) or improved (UK and Eurozone).

⁸ Goldman Sachs, Womenomics, Europe moving ahead, 2020.



... but untapped potential persists.

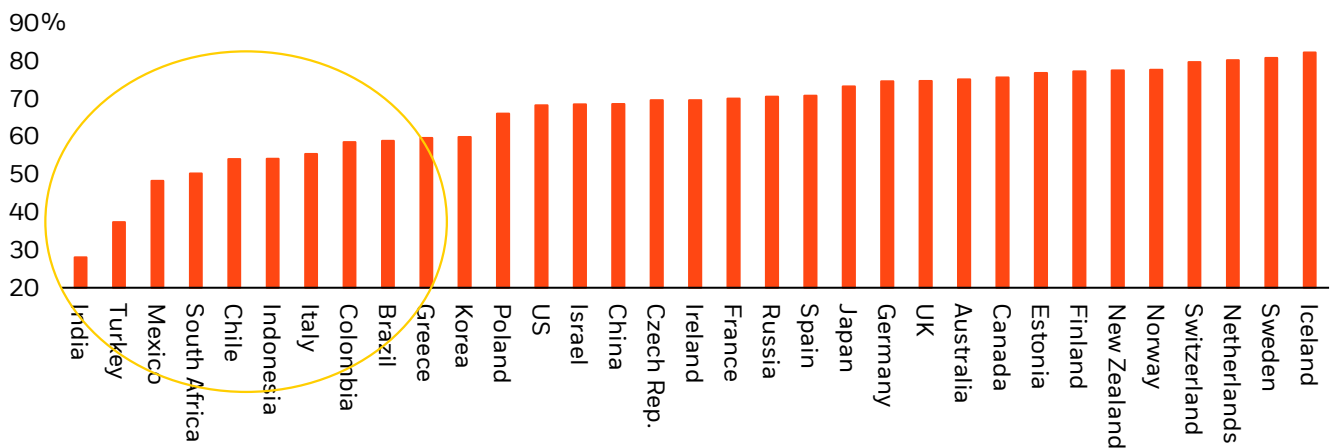
Long-standing structural forces and a lack of investment in women are key drivers of the gender gap in labor force participation. While these challenges vary by region – and within individual countries and communities – common themes include labor-force regulations, lack of investment in educating women and providing childcare, tax disincentives, and cultural expectations. In developing markets, further barriers like early marriage and limited access to credit may prevent women from joining the labor force.

Even with recent gains, the average female participation rate of 64.8% across OECD economies is still well below the 80.1% level among men.⁹ This underrepresentation of women means that the global economy is operating below its efficiency frontier, as higher economic engagement should drive greater economic output.

In emerging markets, women’s share in the labor force tends to be even lower and participation gaps with men wider than in developed markets. Barriers to expanded women’s participation include lack of investments in often costly education (see Chart 4) and healthcare, as well as higher rates of early marriage, along with cultural expectations that may keep women out of school and/or the labor force. This comes through in the data from the OECD region and selected large emerging markets, such as Brazil, South Africa, India, China, Russia, and Indonesia (Chart 2). However, there has been significant improvement in some emerging markets, where reforms have been undertaken to boost female participation: Saudi Arabia, for example, reports that its female labor force participation rate has increased from 21% in 2017 to 35% in just five years.¹⁰ Constraints are larger and female labor force participation rates are lower in the frontier markets of Africa and parts of Asia.

Chart 2: Women’s labor force participation rates are lower in emerging markets

Female labor force participation, selected OECD and EM economies



Source: OECD, as of December 2021 or latest available.

⁹ OECD Employment Outlook 2022: Building Back More Inclusive Labor Markets.

¹⁰ This is the official government data (Saudi General Authority for Statistics/Haver Analytics as of Q3 2022), which differs from the

OECD and ILO numbers for the country. The OECD does not show this increase, instead showing female labor force participation for Saudi Arabia at 23.7% in 2017 and 23.3% in 2019, which is the latest available OECD data.

Spotlight: the importance of education & childcare

Educational constraints affect labor force participation: countries that have invested in educating women have a higher share of women in the labor force. OECD data show that, among women who have completed university-level education, the labor force participation rate is 85%, versus 72% for those who completed upper- or post-secondary non-tertiary education, and just 53% for those with less schooling.¹¹ In developed markets, university education rates for women are high and have in most cases outpaced those of men, with outliers being Greece and Italy. According to a recent World Bank study, limitations on girls' education costs countries between \$15 trillion and \$30 trillion dollars in lost lifetime productivity and earnings;¹² these losses are most pronounced in emerging markets, which are also less able to fund these investments.

Childcare costs or lack of official family support systems often prevent parents from taking up paid work outside the home.

Gender stereotypes and persistent social norms mean that women are disproportionately expected to assume primary responsibility for childcare and domestic tasks.¹³ A 2015 study by McKinsey estimated that unpaid work undertaken by women amounted to as much as \$10 trillion of output per year, or 13% of global GDP at the time.¹⁴ Relatedly, we find that higher public spending on early childhood education and care and more generous paternal leave are associated with higher female labor force participation rates, as can be seen in Europe and Japan (see Chart 3).

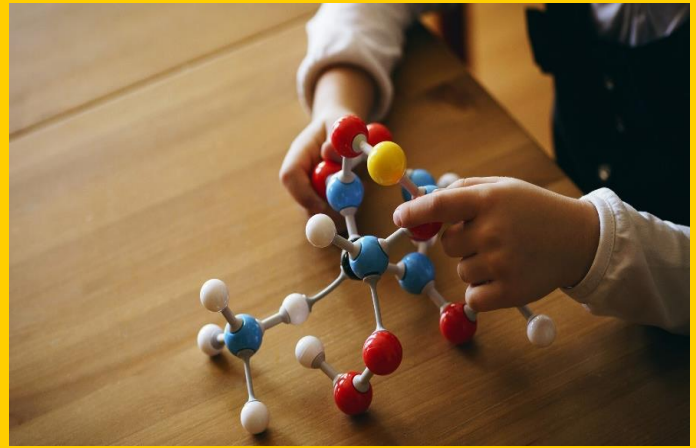
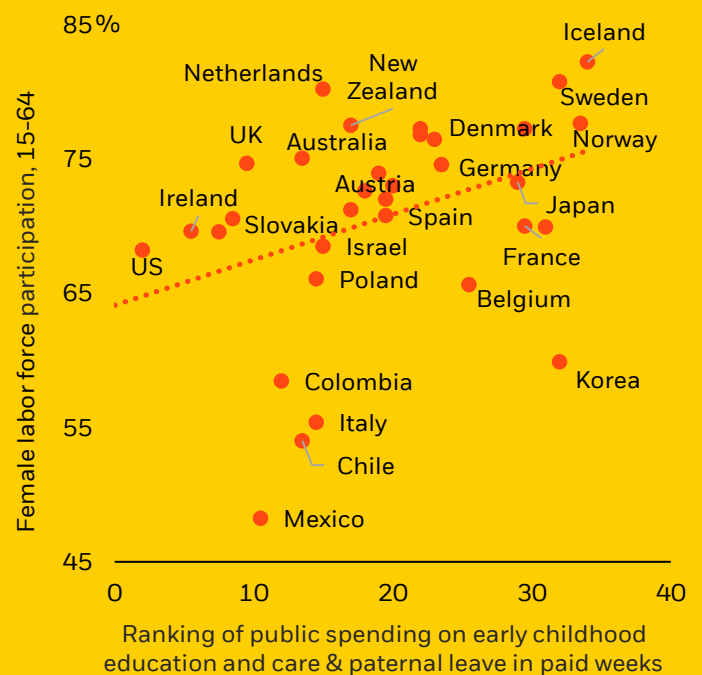
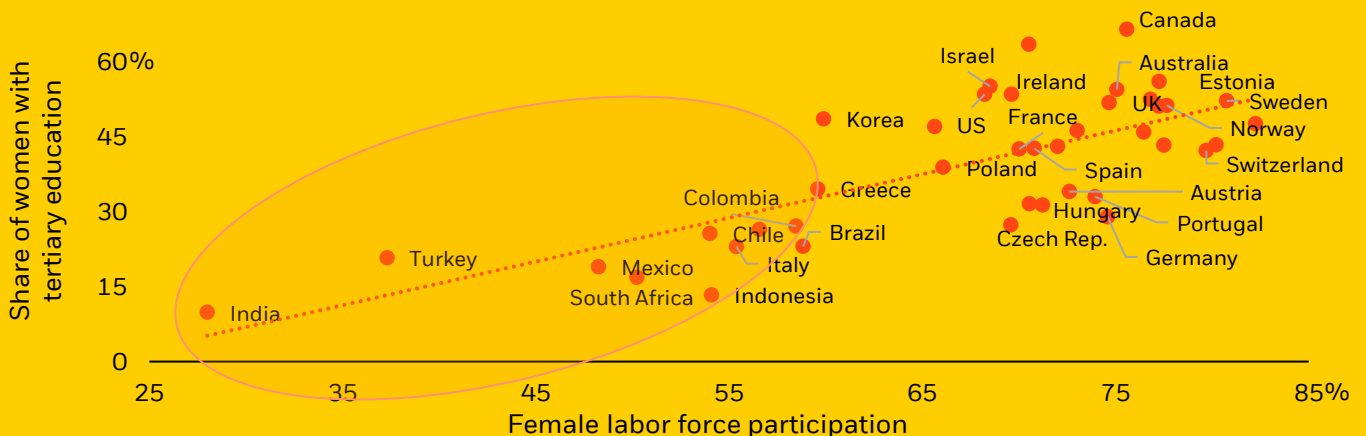


Chart 3: Higher public investments in early childhood education and paternal care are associated with higher female labor force participation



Source: OECD, as of December 2021.

Chart 4: Countries with lower female education tend to have a lower share of women in the labor force



Source: OECD and ILO, as of December 2021 or latest available.

¹¹ OECD (2022), Employment Outlook 2022: Building Back More Inclusive Labour Markets.

¹² The World Bank (2022), The World Bank in Gender

¹³ ILO (2018), Digital labour platforms and the future of work,

September 2018.

¹⁴ McKinsey Global Institute, The Power of Parity: How advancing women's equality can add \$12 trillion to global growth, September 2015.

The potential to unleash higher GDP growth

Looking at the numbers, we see scope for further gains to unleash higher economic returns and to help offset demographics-related labor force supply constraints in the developed world.

Historically, there has been a positive relationship between higher female labor force participation and economic output (which we show in the form of GDP per person) (Chart 5). This is intuitive, as when more people are working, the overall output of an economy should increase. This suggests that economic gains can be made if investments channel greater inflows of women into the labor force.

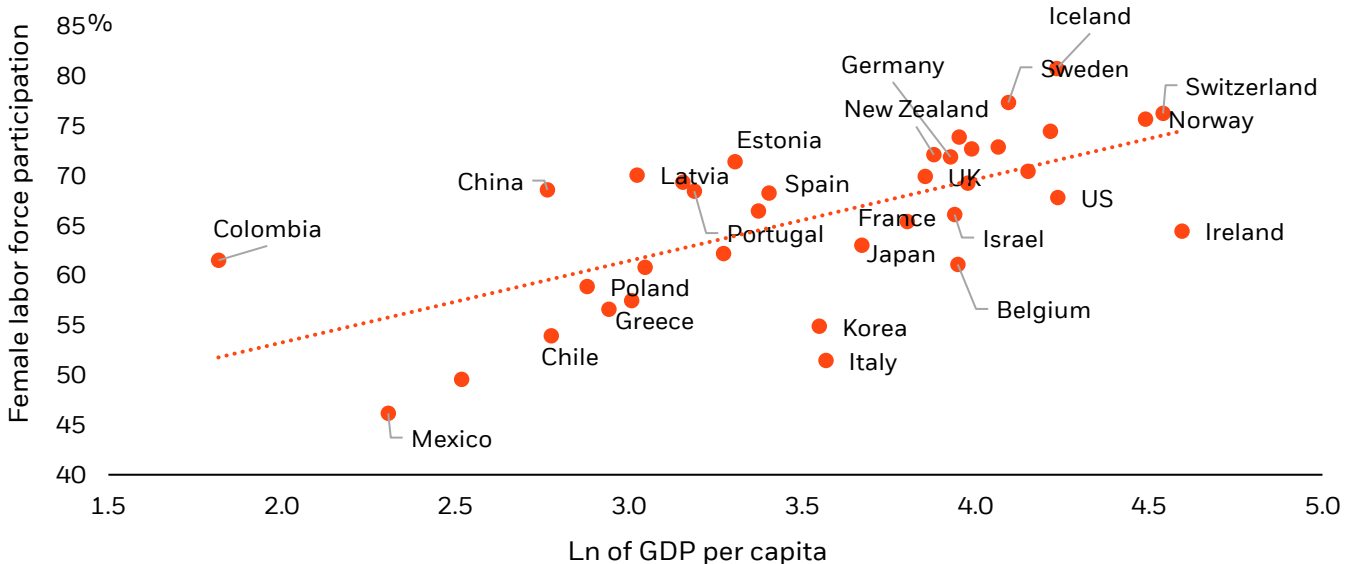
We acknowledge that there is conflicting evidence of causality in the relationship between female labor force participation and economic output. Developed markets have been able to better leverage their human resources. Some of this may reflect deeper pockets to fund investments in educating women and providing childcare. It may also reflect these countries' larger services sector, which is generally more female-friendly than the manufacturing sector which is more prevalent in emerging economies. Cultural changes that came with economic advancement, or in some cases preceded it, may also play a role.

Broad literature refers to a 'U'-shaped relationship where female labor force participation is among the highest in both the richest and the poorest countries. This may reflect the nature of national economies and income levels. In low-income agricultural economies, women and entire households may need to work to support a family, driving overall labor force participation higher.



As an economy develops women may feel more financially secure and able to spend more time raising a family or in school; in some cases there may be social status in staying outside the labor force. Women may also feel less prepared for industrial and capital-intensive work. Among the most developed economies, higher female labor force participation may reflect a larger services sector, greater educational attainment and more extensive childcare options.

Chart 5: A higher share of women in the labor force is associated with higher GDP per person



Source: OECD and IMF, 2021 or latest available, as of December 2021.

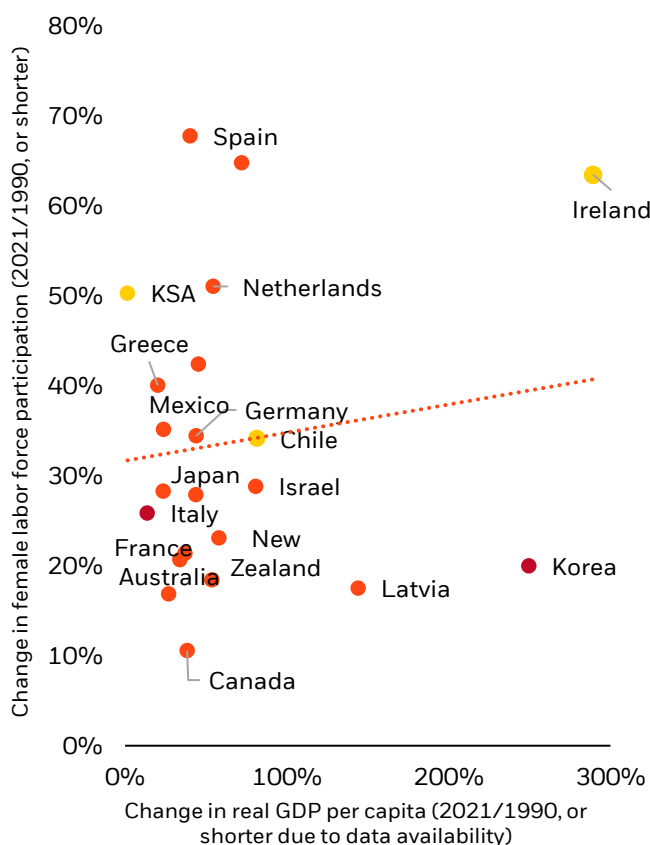


We find that countries that have experienced a substantial increase in women’s participation in the labor market have also seen a meaningful increase in GDP per person (see Chart 6).

Some notable examples include Ireland and Chile, where the female share in the labor force jumped by 27ppt and 14ppt, respectively, over the past 30 (Ireland) and 25 (Chile) years; real GDP per person almost tripled in Ireland and rose by more than 80% in Chile over the same period. Shifting views of women’s role in society as well as legislative reforms around equality, non-discrimination and pensions have been at play in Ireland. That said, this massive inflow of women into the labor force coincided with the implementation of multiple reforms and technological advances that took place simultaneously, making it harder to pinpoint the impact of women’s work on overall economic growth.

These experiences contrast with that of Italy (see Box 1), where women’s participation in the labor force remains one of the lowest in developed markets at 55%, despite a 12ppt increase over the last 30 years. Some of this reflects regional differences, with the rate in the north (almost 60%) roughly twice that in the south (30%).¹⁵

Chart 6: A material increase in female labor force participation is associated with higher growth in GDP per capita

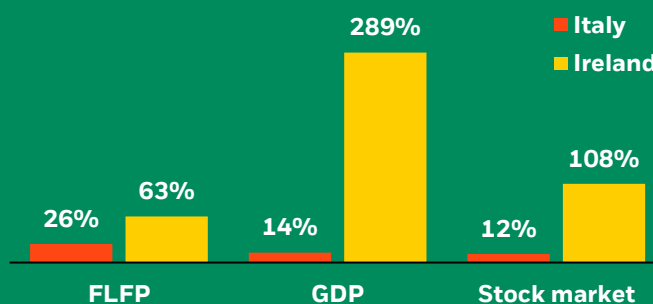


Source: OECD and IMF, as of 2021 or latest available.

Box 1

A material increase in female labor force participation is associated with higher growth in GDP per person

Percentage change from 1990-2021 (or latest available)



Source: OECD, IMF, Bloomberg, stock market indexes – FTSEMIB and ISEQ - are for 1997-2021 period.

¹⁵ Alderotti, “Female employment and first childbirth in Italy: what news”, Genus Journal of Population Sciences, April 2022.

Returns left on the table

A simple increase in labor force participation can boost output through more efficient use of available resources – essentially, a larger labor force means higher GDP. Several studies have quantified the potential economic gains from an increase in female labor force participation, with estimates ranging from 5% to 35% of GDP.¹⁶ A study published in the University of Chicago Press Journal estimates that overall gender gaps, including participation gaps, wage gaps and entrepreneurial gaps may cause an average income loss of 15% at the OECD level.¹⁷

Our estimates point to a ~5% increase in economic output if the average female participation rate across OECD countries (nearly 65%) were to increase by 10 percentage points.

An increase of this magnitude would align the OECD female labor force participation more closely with Germany (~75%). Notably, Germany represents a conservative target – the impact would be higher if the OECD rate were to increase in line with Sweden, where female labor force participation is ~81%.

The 5% figure is an average across the OECD. A different scenario, in which we benchmark country groupings to specific peers – developed markets to Sweden, Central and Eastern Europe (CEE) to Germany, and emerging markets to Israel – shows greater gains in emerging economies (both in and outside the OECD)¹⁸– see Box 2.

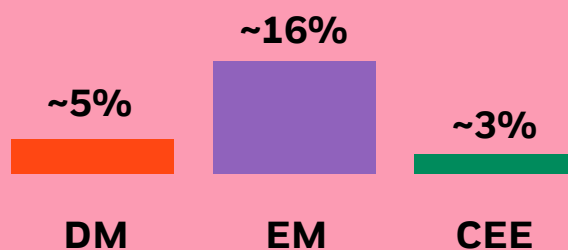
- In emerging markets, the population-weighted increase in economic output would be 16%, ranging from around 4% in Korea to 19% in Turkey and 30% in Saudi Arabia.
- The impact is smaller in developed markets, where higher investments have already been made to bring women into the labor force and participation gaps are smaller. A clear outlier is Italy, where we find that economic output could increase as much as 14% if the female labor force participation rate matched Sweden's.
- The gains would also be significantly smaller in Eastern European countries (along the lines of just 3%), since these countries have higher education rates and a high starting level of women in the labor force.



Box 2

“

Increasing women's participation could lead to significant gains in economic output”



Source: OECD, IMF and BlackRock calculations.

¹⁶ Goldman Sachs, Women Hold Up Half the Sky, 2008; O. Thévenon et al., Effects of reducing gender gaps in education and labor force participation on economic growth in the OECD, OECD working paper, December 2012; McKinsey Global Institute, The Power of Parity: How advancing women's equality can add \$12 trillion to global growth, September 2015; IMF, Economic Gains from Gender Inclusion: New Mechanisms, New Evidence, October 2018.

¹⁷ Cuberes and Teignier 2016, Aggregate Effects of Gender Gaps in the Labor Market: A Quantitative Estimate, Journal of Human Capital Volume 10, Number 1, Spring 2016.

¹⁸ See appendix for the country groupings used in our analysis.



Our analysis presents a compelling case for investing in women, but a few factors require consideration. First, our estimates take into account simply the narrow direct impact of a larger labor force. We use the economic production function and assume an outright increase in labor adjusted for a labor elasticity coefficient of roughly 0.7, to reflect potential larger participation of women in the labor force, keeping all other production inputs and corresponding coefficients unchanged. We do not consider the potential positive impact from bringing previously unpaid work into the GDP figures, nor the gender differences in average hours worked.

We also do not consider the complementarity of women's and men's work. According to the IMF, women's skills and ideas are complementary to men's,¹⁹ meaning that by bringing more women into the workforce, gender diversity is likely to be beneficial to productivity and economic growth.²⁰ The IMF finds that complementarity is more pronounced when women are in short supply compared to men, as in many emerging markets, making the economic impact of women joining the labor force higher than that of an equivalent increase in men. A good example is Ireland, where, according to the IMF, a dramatic increase in female labor force participation since 1990 has contributed to strong productivity gains.

Second, we do not include any potential negative

impact if higher women's participation were to put downward pressure on men's wages. This may be an intuitive concern, but several studies have challenged the assumption that women's entry into the labor force would in fact put pressure on men's wages. Research conducted on a sample of US cities over 1980-2010 showed that a 10% increase in the female labor force participation rate was associated with 5% increase in median real wages, including for men.²¹ This is consistent with the IMF's findings that adding women to labor force, when they are in shortage, helps to raise productivity and real wages, due to the complementarity of the two sexes at work.

~5%

Estimated increase in economic output, if average female labor force participation rate across OECD countries were to increase by 10ppts

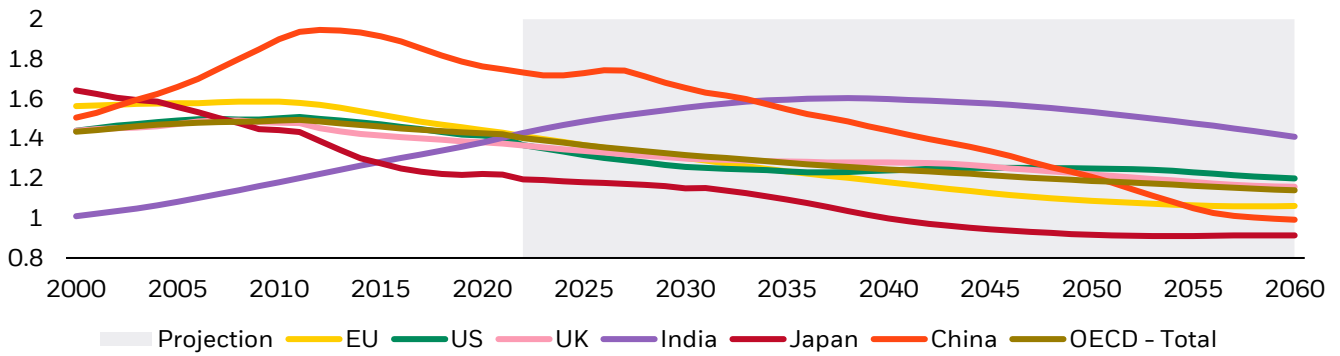
¹⁹ IMF, Economic Gains from Gender Inclusion: New Mechanisms, New Evidence, October 2018.

²⁰ IMF, *ibid.*

²¹ Weinstein, 'When more women join the workforce, wages rise – including for men,' Harvard Business Review, 2018.

Chart 7: The developed world's population is expected to age dramatically in the coming decades

Age dependency ratio (20-64 population to <20 & >64 population)



Source: OECD (including OECD projections for 2022 and beyond) and BLK calculations.

Higher female labor force participation may also help offset increasing demographics-driven labor supply constraints in the developed world. Aging populations across much of the developed world present a looming economic challenge (Chart 7). According to the IMF, the European workforce could increase by 6% if female labor force participation rose to match men's. If, at the same time, the gender gap in average working hours were also closed, that increase could reach 15%.²² The European Commission has recently estimated that narrowing the EU27's gender gaps in employment and hours

worked to bring them in line with Sweden's could increase labor supply by 4ppt (6%).²³

This would more than offset a projected decline in the EU working age population that Eurostat estimates at 2ppt over the course of 10 years (from 59% in 2020 to 57% in 2030).²⁴ The impact of similar changes can also be seen in Japan, where over the last two decades labor force participation for women aged 15-64 increased by 13.7ppt while that of men increased by only 1.35ppt.

Case study: Japan

Japan's female labor force participation surged from ~63% in 2013 to 73% in 2021, surpassing the US and Europe. In 2014, then-Prime Minister Shinzo Abe launched a 'Womenomics Policy' to spur GDP growth and productivity gains. The reforms enacted under the policy included expanded childcare provision, greater support for parental leave, labor reforms to limit the use of overtime and enforce pay equality, and a gender diversity disclosure mandate for public- and private-sector organizations.

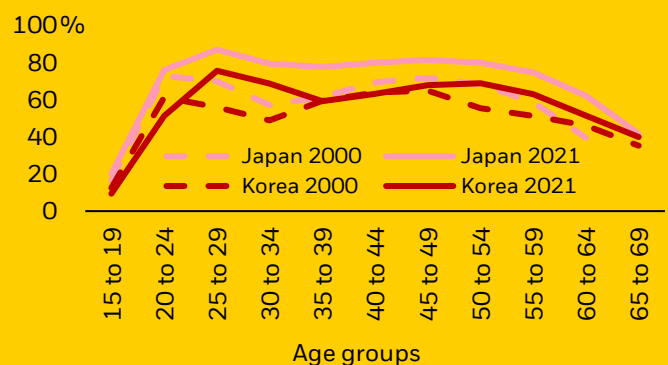
Since the introduction of Womenomics, Japan has seen its female labor force participation rise to 73% in 2021 from 63% in 2013. Previously, Japanese data had demonstrated an 'M curve', in which employment dipped for women in their 30s before recovering among women in their 40s, suggesting that women likely worked less or left the labor market to raise a family. As a result of Womenomics, the 'M curve' has nearly normalized: in 2019, 55% of

Japanese women re-entered the labor force after the birth of their first child, up from 38% in 2010.

However, progress has lagged in other areas, particularly in meeting the 30% target for female representation in government and corporate leadership roles, in closing the large gender wage gap and in dismantling legal constraints such as inflexible labor contracts and tax disincentives.²⁵

Chart 8: Japan has almost eliminated the 'M' curve in women's labor force participation

Female labor force participation across age groups



Source: OECD, as of December 2021.

²² IMF (2016), "Unlocking Female Employment Potential in Europe: Drivers and Benefits."

²³ Calculated as the difference between the average male and female full-time equivalent employment rates and expressed as a percent of the male full-time equivalent employment rate. This rate is 12% in

Sweden (compared to 17% in the EU27).

²⁴ European Commission, 2022, The Macro-Economic Benefits of Gender Equality.

²⁵ Goldman Sachs, Womenomics 5.0, 2019.



Spotlight: Women are closing the participation gap following the pandemic

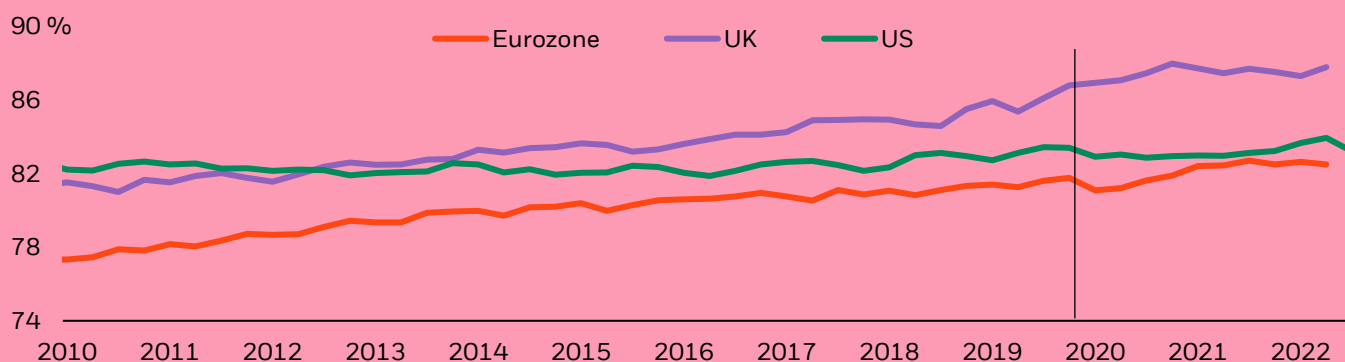
During the early stages of the Covid-19 pandemic, labor force participation rates fell by more than 2% in major economies (see Chart 9). In the US and the Eurozone, women initially dropped out of the labor force in larger numbers than men, likely due to expanded childcare demands. They have since returned at a faster pace, closing more of the gap to pre-pandemic levels – although the most recent US data points to a reversal. In the UK, men in older cohorts left the labor force in greater numbers than their female peers, primarily due health reasons. Today, the overall labor force participation rate in the UK and the US (16%+) remains below pre-Covid levels (by 1.2 and 1.4ppt respectively), largely driven by departures by older workers (50+ and 55+).^{26, 27}

As widely seen, the pandemic also accelerated the rise of online digital labor platforms and remote

working. These developments have the potential to increase women’s labor force participation by making it easier to balance work with family care demands. A recent paper that looks at the impact of Covid on gender equality concludes that the pandemic may ultimately promote gender equality in the labor market through a number of channels, notably a higher prevalence of flexible work arrangements and an increasing number of fathers taking primary responsibility for childcare.²⁸ That said, in the short term there is a risk that in order to respond to family obligations, women may switch to jobs that provide better work-life balance at the cost of lower pay, exacerbating the gender wage gap. In fact, early data suggests that women in the US have shown a higher tendency to shift to lower paying jobs in the wake of the pandemic.²⁹

Chart 9: Women led the decline in labor force participation during the pandemic in the US and Eurozone, resulting in a lower women-to-men LFP ratio, but that later somewhat reversed

Ratio of female and male labor force participation, 16+



Source: Haver, BLS, ONS, Eurostat. Note: the vertical line indicates the start of the pandemic, March 2020. Data for UK and EU are as of Sep 2022 and for US as of Dec 2022.

²⁶ BlackRock, October 2022, After the great resignation: shifting expectations for employers.

²⁷ BlackRock, October 2022, Demographics limit U.S. growth outlook.

²⁸ Alon T., Doepke M., Olmstead-Rumsey J. and M. Tertilt, The Impact of COVID-19 on Gender Equality, NBER Working Paper, April 2020.

²⁹ BlackRock, October 2022, After the great resignation: shifting expectations for employers.



Closing the gender wage gap to unleash higher returns



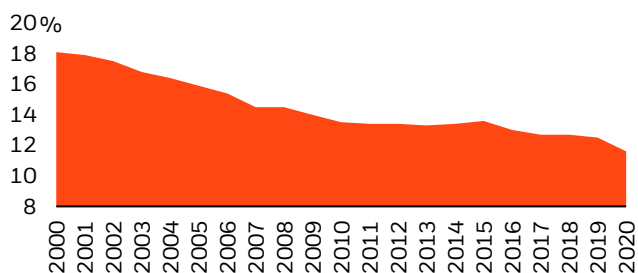
Men earn more than women across the world, with an average 12% wage gap across OECD member states as of 2022. A large part of that gap remains unexplained by factors such as women’s choice of industry, occupation, working time or education. Our analysis shows that narrowing this gap could materially increase GDP in the OECD region.

The gender pay gap has been steadily closing over the last decade, but there is still room for improvement.

The OECD headline gender wage gap declined 36% between 2000 and 2020 (see Chart 10); this measure reflects the difference between median earnings of full-time female employees and those of full-time male employees. Yet the gap remains high in many OECD countries, at 17.7% in the US, 22.5% in Japan and 31.5% in Korea (see Chart 11).³⁰

Chart 10: The gender wage gap in the OECD has narrowed by 36% over the last two decades, but remains above 10%

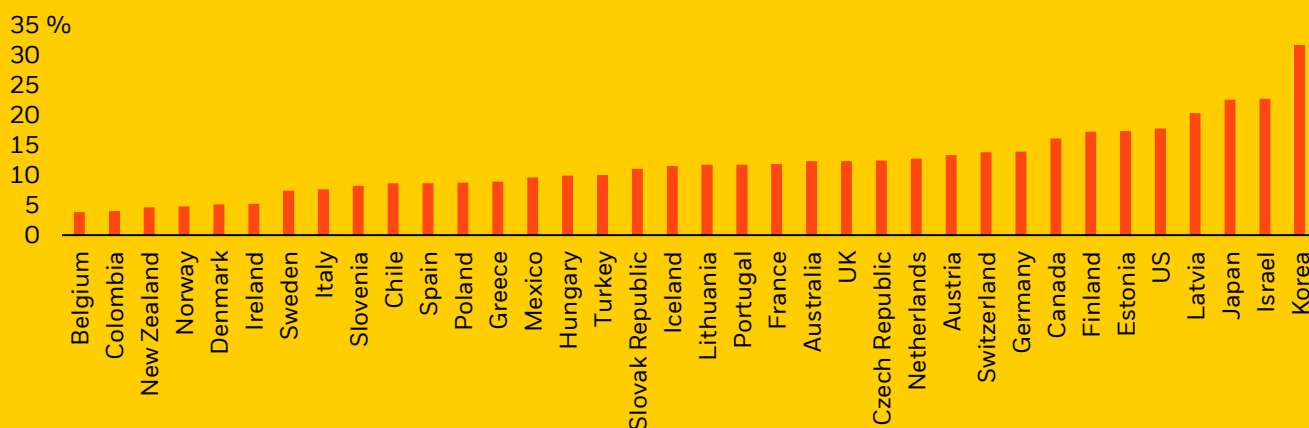
Gender wage gap at median wages for OECD countries



Source: OECD, gender wage gap for full time employees, as of December 2020.

Chart 11: A gender wage gap persists across the OECD

Gender wage gap at median wages for selected OECD countries



Source: OECD and Iceland statistics, gender wage gap for full time employees, data as of December 2021 or latest available.

³⁰ Source: OECD, gender wage gap for full time employees, as of December 2020.



Drivers of the wage gap

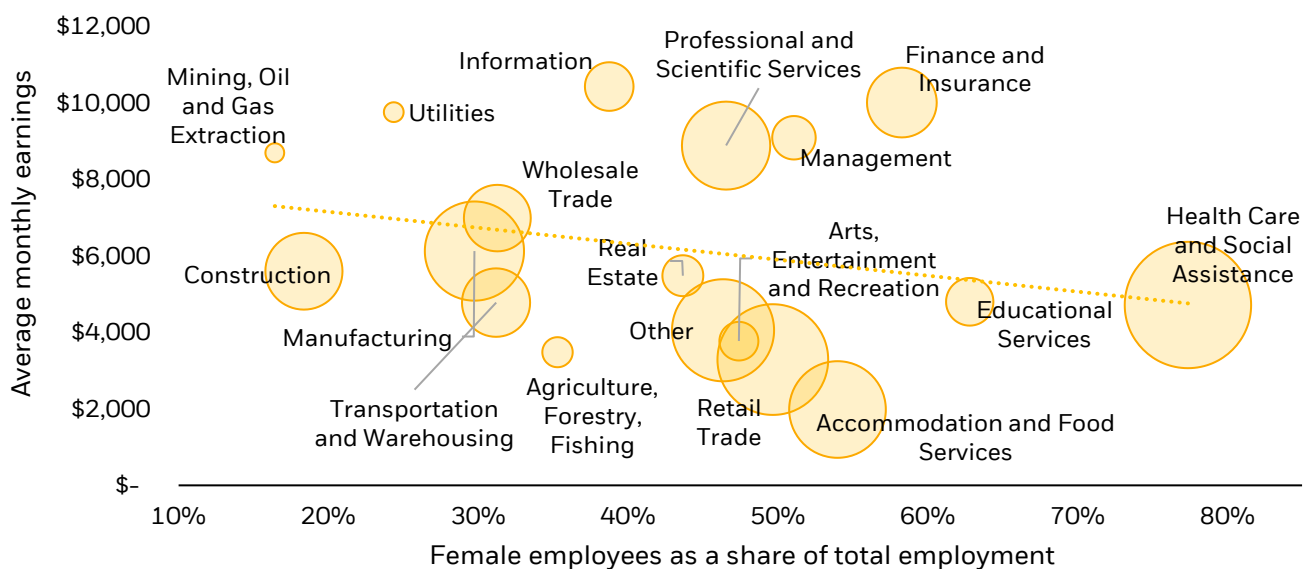
Sectoral and occupation segregation are key drivers of the gender wage gap. Contributing factors to the gender wage gap include:

- Economic or sectoral differences in jobs
- ‘Working time,’ with men being more likely to work full time, or less likely to take career breaks
- Work experience, which is also related to career breaks being more common among women
- Differences in education
- Occupation, according to studies conducted by Glassdoor³¹ and Eurostat.³²

In the US, women are more likely to work in lower-paid sectors (for example, education or social assistance), while men dominate in higher-paying sectors (such as information technology) (Chart 12). Our own analysis performed at the detailed occupational level provided similar conclusions.

Parallel trends can be observed across European countries. While individual preferences may drive decisions to join a specific industry or job, decisions are likely affected by cultural and social norms that also guide women’s educational choices.

Chart 12: Women in the US are more likely to work in lower-paid subsectors



Source: US Census, BLS. Average monthly earnings from 2020, female employment share from 2021. Bubble size indicates total employment in the sector as of 2021.

³¹ Glassdoor Economic Research, Progress on the Gender Pay Gap: 2019, Research Report, March 2019.

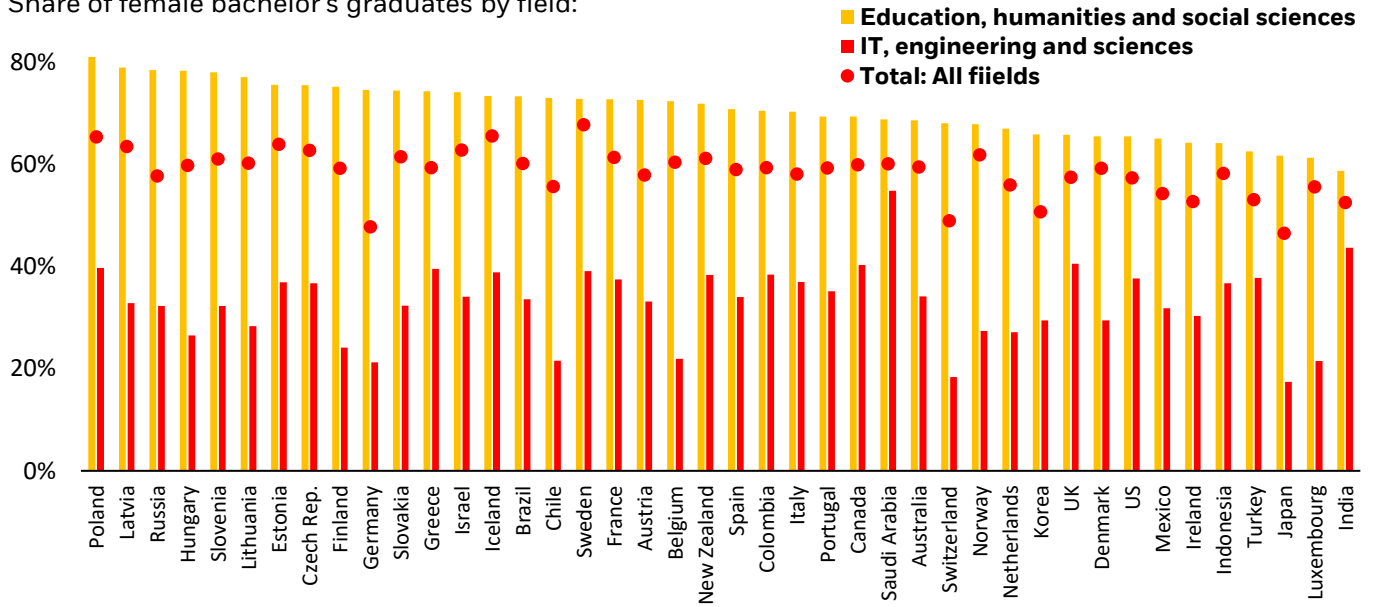
³² Eurostat, Gender pay gaps in the European Union – a statistical analysis – Revision 1, 2021 edition, March 2022.

The field of education contributes significantly to the gender wage gap. Higher levels of educational attainment recently observed among women have likely helped narrow the gender gap. However, the chosen field of study is also critically important to the gender wage gap. Women across the OECD region (and selected EM economies) receive degrees in education, humanities and social

sciences at significantly higher rates than in higher-paying fields such as IT, engineering and sciences (see Chart 13). These gender divides created in early stages of life affect future career choices and compensation, and contribute to the gender sectoral differences highlighted above.

Chart 13: Women tend to obtain degrees in social studies at significantly higher rates than in Science, Technology, Engineering, and Math (STEM) subjects

Share of female bachelor's graduates by field:



Source: OECD, as of December 2019 or latest available.



Part-time work

Part-time work helps bring women into the labor force but doesn't fully leverage their skills and investments in education.

One in four working women in the OECD region works part-time, versus only one in ten men –³³ which is one of the key reasons why women's average earnings are lower than men's. Naturally, part-time work allows more time and flexibility to carry out domestic work, roles which disproportionately fall to women. Although part-time contracts help bring more women in the labor force, they are limiting in a number of ways. On the individual level, working part-time not only lowers take-home income and reduces women's savings, but it also limits career growth opportunities, skill development and professional network-building opportunities. At a broader societal level, a high share of women in part-time work suggests that economic returns are left on the table, as a large share of potentially highly-talented and educated workers is underutilized; this is particularly relevant when high investments in educating women have already been made.

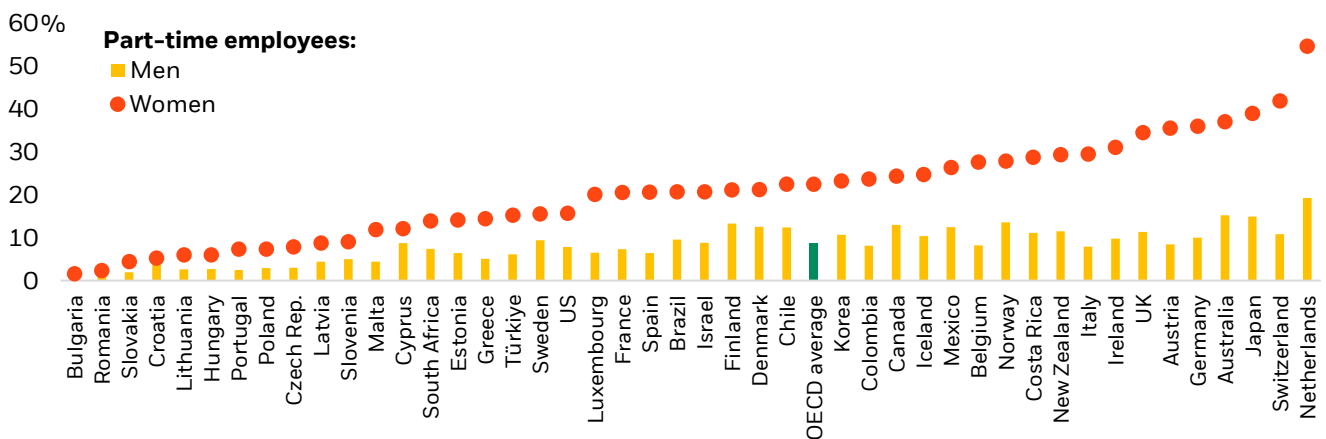
Facilitating more full-time work by women could thus help to better reallocate talent and boost overall productivity.



Diverse workforces

Performance benefits from boosting diversity across sectors. Research shows that gender diversity in and of itself can drive economic benefits in many ways. Women and men's labor can be complementary in production: women bring unique skills and perspectives, including different attitudes toward risk and collaboration.³⁴ Sectors with more gender-balanced labor forces tend to be more productive than unbalanced ones.³⁵ Gender-diverse teams have been shown to produce more novel and higher-impact scientific ideas³⁶ and to increase the efficiency of R&D spending.³⁷ A positive effect of gender diversity on productivity is particularly evident in high-tech/knowledge-intensive sectors.³⁸ In a world heavily dependent on new technologies to drive growth, encouraging and investing in greater female representation in technology related fields such as STEM could help boost economic growth through greater creativity and innovation.

Chart 14: Women tend to work fewer hours than men



Source: OECD, Part-time employment (less than 30 hours per week in the main job) as a proportion of total employment, as of December 2021, or latest available.

³³ OECD, as of 2021.

³⁴ Ostry J.D., Alvarez J, Espinoza R.A. and C. Papageorgiou, 2018, 'Economic Gains From Gender Inclusion: New Mechanisms, New Evidence' (imf.org), IMF Staff Discussion Notes.

³⁵ European Commission, 2022, The Macro Economic Benefits of Gender Equality.

³⁶ Yang Y., Tian T. Y. and T.K. Woodruff, 'Gender-diverse teams produce more novel and higher-impact scientific ideas', Proceedings

of the National Academy of Sciences, 2022.

³⁷ Schneider, J. and V. Eckl, 2016, The difference makes the difference: Team diversity and innovation, OECD Blue Sky III Conference.

³⁸ Garnero A., Kampelmann S. and F. Rycx, 2014, 'The Heterogeneous Effects of Workforce Diversity on Efficiency, Wages, and Profits,' Industrial Relations: A Journal of Economy and Society.

Not all of the gender wage gap can be explained

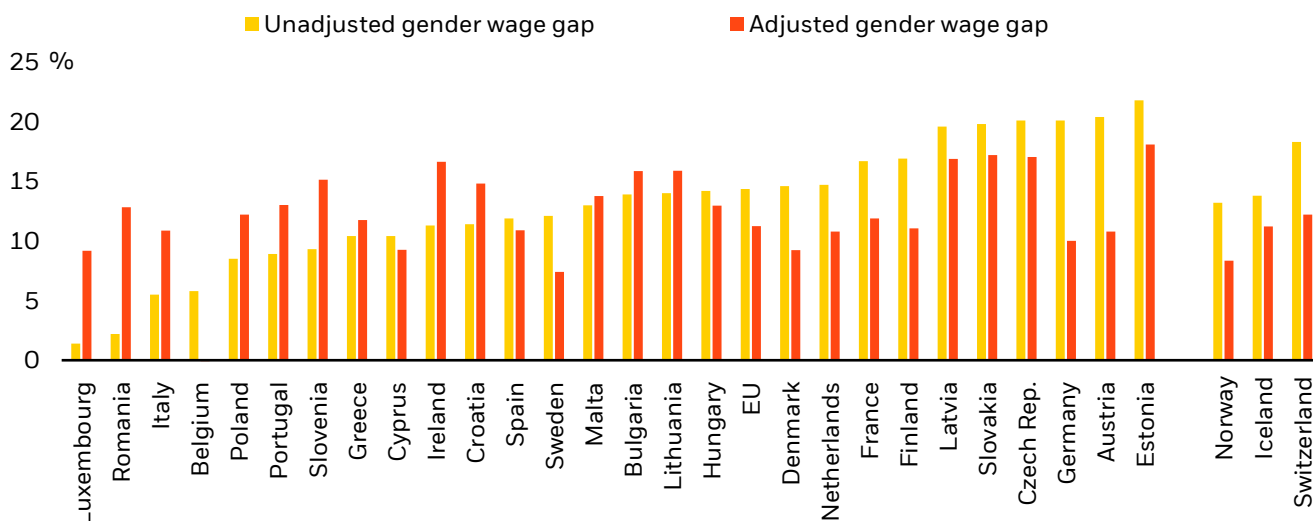
The gender wage gap remains high, even after controlling for personal, economic and sectoral differences. Only 22% of the (unadjusted) gender pay gap in the EU area can be explained by measurable – personal, job and enterprise-related – factors, according to Eurostat. In the EU, on average, women are paid 11.2% less in hourly gross earnings than are men in the same job and industry and with the same qualifications.³⁹ Glassdoor reports somewhat smaller magnitudes of the adjusted wage gaps as of 2019 – between 3.1% to 6.6% in selected developed markets, with 4.9% in the US. These figures may underestimate the true pay gap, given that the Glassdoor analysis reflects base salary, while Eurostat numbers consider overall pay. Yet, even according to Glassdoor, many occupations in the US exhibit higher gender pay gaps. Professions as diverse as C-suite executive, deputy manager, branch manager, retail representative, pilot, chef and driver are characterized by substantial unexplained gender pay gaps, ranging from 11.7% to 26.6%.⁴⁰

The drivers of the unexplained wage gap are not clear, but they may include cultural factors that affect the broad working climate and, with that, incentives to perform. Work environments that create opportunities and reward both men and

women can boost productivity and performance through multiple channels. Firstly, they better align financial incentives, encouraging talented women to enter the workforce, to stay in the labor market and to climb the career ladder. Secondly, research has shown that a perception of fairness can improve productivity by creating trust,⁴¹ strengthening commitment⁴² and improving performance and employee retention.⁴³



Chart 15: Even after controlling for personal, sectoral and enterprise differences, the gender wage gap in gross hourly earnings remains



Source: Eurostat, Structure of Earnings Survey 2018. Adjusted Pay Gap estimated using individual level data by controlling for personal, job and enterprise characteristics or workers.

³⁹ Eurostat, Gender pay gaps in the European Union – a statistical analysis – Revision 1, 2021 edition, March 2022.

⁴⁰ Glassdoor Economic Research, Progress on the Gender Pay Gap: 2019, Research Report, March 2019.

⁴¹ G. Tabellini, 2008, 'The Scope of Cooperation: Values and Incentives,'

Quarterly Journal of Economics.

⁴² MIT Sloan Management Review, 2015, 'How Workplace Fairness Affects Employee Commitment'.

⁴³ Harvard Business Review, 2022, 'How Fair is your Workplace?, How Fair Is Your Workplace?'

The potential to unleash higher GDP growth

Closing the gender wage gap could increase GDP by 5%.

We calculate that fully closing the gender wage gap could increase GDP by a one-time boost of 5%, on average, across OECD countries.⁴⁴ This number represents the extra aggregate income that currently working women would earn if they worked in the same capacity (e.g. hours and type of jobs) as men and were compensated as much as men on average (all else equal).⁴⁵ Fully closing the gender

wage gap is an ambitious goal, not only because it requires overcoming many societal barriers and structural changes in the economy. To some extent, career and work choices may also be driven by personal preferences. Given these considerations, it may be more realistic to consider narrowing the gap by half. The latter could drive an increase in GDP in the OECD region of 2.5%. However, the combined impact on GDP could be even larger if better financial incentives spurred more women to join the labor force.



~2.5%

Estimated increase in economic output, if average gender wage gap across OECD countries narrowed by half

Case study: Iceland

Iceland's 2018 Equal Pay Standard required companies to use pay management systems that established job criteria and pay ranges without regard for gender. **Since its implementation, Iceland's gender wage gap has fallen from 16.3% in 2008 to 11.5% in 2021.** Further legislation has helped to support Iceland's labor force participation more broadly. Policies improving access to early education and care have allowed parents – particularly women – who had previously stayed

home to enter the labor force. Iceland's paternal leave program provides leave for both parents, helping women to re-enter the labor force and allowing for greater sharing of early childhood and household responsibilities. Women's labor-force participation rate rose from 71% in 2006 to 84% in 2021 – one of the highest national levels anywhere in the world, and leaving a gap of just 5ppt compared to men.⁴⁶

⁴⁴ The total effect for the OECD region is calculated using simple average across OECD countries with non-missing data.

⁴⁵ In our analysis we use average earnings for both genders across all employees, rather than full-time only, which accounts for larger gender wage gaps due to higher tendency of women to work part-time compared to men. We use mean earnings among all working men and all working women in the

OECD countries reported by ILOSTAT for 2016-2020. Using average earnings among all working employees, rather than median earnings of full time employees only, helps to capture the aggregate female employees' compensation, a component of GDP in the income approach.

⁴⁶ IMF2022, Tackling Legal Impediments to Women's Economic Empowerment (imf.org).

Appendix

OECD Countries (as of December 2022):

Australia, Austria, Belgium, Canada, Chile, Colombia, Costa Rica, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Israel, Italy, Japan, Korea, Latvia, Lithuania, Luxembourg, Mexico, Netherlands, New Zealand, Norway, Poland, Portugal, Slovak Republic, Slovenia, Spain, Sweden, Switzerland, Turkey, United Kingdom, United States

Country groupings in our analysis:

- **Developed Markets:** Australia, Austria, Belgium, Canada, Denmark, Finland, France, Germany, Greece, Iceland, Ireland, Italy, Japan, Luxembourg, Netherlands, New Zealand, Norway, Portugal, Spain, Sweden, Switzerland, United Kingdom, United States
- **Emerging Markets:** Brazil, Chile, China, Colombia, Costa Rica, India, Indonesia, Israel, Korea, Mexico, Russia, South Africa, Saudi Arabia, Turkey
- **Central and Eastern European Markets** (these are normally classified among emerging markets, but we consider them as a separate group due to their high starting levels of female labor force participation): Czech Republic, Estonia, Hungary, Latvia, Lithuania, Poland, Slovakia, Slovenia

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