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THE POWER OF PARITY: ADVANCING WOMEN'S EQUALITY IN ASIA PACIFIC

APRIL 2018



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MGI is led by three McKinsey & Company senior partners: Jacques Bughin, Jonathan Woetzel, and James Manyika, who also serves as the chairman of MGI. Michael Chui, Susan Lund, Anu Madgavkar, Jan Mischke, Sree Ramaswamy, and Jaana Remes are MGI partners, and Mekala Krishnan and Jeongmin Seong are MGI senior fellows.

Project teams are led by the MGI partners and a group of senior fellows, and include consultants from McKinsey offices around the world. These teams draw on McKinsey’s global network of partners and industry and management experts. Advice and input to MGI research are provided by the MGI Council, members of which are also involved in MGI’s research. MGI Council members are drawn from around the world and from various sectors and include Andrés Cadena, Sandrine Devillard, Richard Dobbs, Tarek Elmasry, Katy George, Rajat Gupta, Eric Hazan, Eric Labaye, Acha Leke, Scott Nyquist, Gary Pinkus, Sven Smit, Oliver Tonby, and Eckart Windhagen. In addition, leading economists, including Nobel laureates, act as research advisers to MGI research.

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PREFACE

Advancing women's equality in work and society represents one of the most sizable economic opportunities for the world. McKinsey & Company has been researching, publishing, and helping shape action on gender diversity for more than a decade, and the McKinsey Global Institute (MGI) has contributed to this important issue with its research series on the "power of parity".

In September 2015, MGI published a global report, *The power of parity: How advancing women's equality can add \$12 trillion to global growth*. Since then, we have issued reports on the power of parity in Canada, India, the United Kingdom, the United States, and Western Europe, as well as research on what it will take to deliver gender parity globally. In this report, MGI explores the challenge of gender inequality in Asia Pacific, one of the most economically dynamic regions in the world, and an engine of global growth.

This research was led by Jonathan Woetzel, a director of MGI and senior partner of McKinsey, based in Shanghai; Anu Madgavkar, an MGI partner based in Mumbai; Kweilin Ellingrud, a partner based in Minneapolis; and Mekala Krishnan, an MGI senior fellow based in Boston, along with Kevin Sneader, chairman of McKinsey's offices in the Asia Pacific region, and McKinsey senior partners John Lydon in Sydney, Sha Sha in Hong Kong, Oliver Tonby in Singapore, and Diaan-Yi Lin in Singapore. Michael Gubieski, a consultant in Melbourne, led the working team, which comprised Alice Hudson, Nigel Lee, James Oliver, Catherine Peralta, and Phillippa Radford. We are grateful to a number of McKinsey colleagues who were closely involved in this research and provided invaluable insight into the seven countries highlighted in the report. They are Rishi Arora, Anders Bärlund, Jules Carrigan, Jenny Cermak, Kaushik Das, Namrata Dubashi, Emma Dudley, Ellen Feehan, Vidhya Ganesan, Guillaume de Gantès, Rajat Gupta, Shishir Gupta, Rachel Howard, Corinne Johnson, Peter Kenevan, Nick Leung, Guang Li, Suraj Moraje, Joe Ngai, Tracy Nowski, Vivek Pandit, Kristine Romano, Yukiko Sakai, Miki Sarumaru, Himanshu Satija, Jeongmin Seong, Tanya Sharma, Ben Vatterott, Jin Wang, Kenji Watatani, Phillia Wibowo, Naomi Yamakawa, and Fadhilah Zamawi.

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This report contributes to MGI's mission to help business and policy leaders understand the forces transforming the global economy, identify strategic locations, and prepare for the next wave of growth. As with all MGI research, this work is independent and has not been commissioned or sponsored in any way by any business, government, or other institution. We welcome your comments on the research at MGI@mckinsey.com.

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IN BRIEF

ADVANCING WOMEN'S EQUALITY IN ASIA PACIFIC

Advancing women's equality in the countries of Asia Pacific could add \$4.5 trillion to their collective annual GDP by 2025, a 12 percent increase over the business-as-usual trajectory. Already a powerful engine of global growth, pursuing the goal of gender parity can lift many more women out of poverty, unleash the economic potential of many others, and reinforce the region's dynamic growth story.

- All countries would benefit from advancing women's equality. In a best-in-region scenario in which each country matches the rate of progress of the fastest-improving country in its region, the largest absolute GDP opportunity is in China at \$2.6 trillion, a 13 percent increase over business-as-usual GDP. The largest relative GDP opportunity is in India, which could achieve an 18 percent increase over business-as-usual GDP, or \$770 billion. Across Asia Pacific, we estimate that 58 percent of the opportunity would come from raising the female labour-force participation ratio, 17 percent from increasing the number of hours women work, and the remaining 25 percent from more women working in higher-productivity sectors.
- MGI has established a strong link between gender equality in work and in society—the former is not achievable without the latter. MGI's Gender Parity Score, or GPS, using 15 indicators of gender equality in work and society, measures the distance each country has travelled towards parity, which is set at 1.00. Overall, Asia Pacific has a GPS of 0.56, slightly lower than the global average of 0.61—both “high” levels of gender inequality. But countries in the region vary in their positions on specific indicators. There is no single Asia Pacific story.
- On gender equality in work, the Philippines stands out for its progress, followed by New Zealand and Singapore. The six countries furthest from gender parity in work are Bangladesh, India, Japan, Nepal, Pakistan, and South Korea. China does well on female labour-force participation but can improve its share of women in leadership—as can most countries in Asia. Globally, there are fewer than four women in leadership roles to every ten men, but, in Asia Pacific, only around one woman for every four men. Gender inequality also remains high across the region in the sharing of unpaid care work.
- On gender equality in society, Australia, New Zealand, the Philippines, and Singapore are ahead of most in the region on essential services such as education, maternal and reproductive health, financial and digital inclusion, and legal protection and political voice; countries like Bangladesh, India, Nepal, and Pakistan still have a considerable distance to travel. Achieving gender parity in digital and financial inclusion is a large opportunity in many South Asian and Southeast Asian countries. Physical security and autonomy remains a concern in many parts of the region—and globally.
- Asia Pacific nations have made progress in the past decade, driven by a combination of economic development, government measures, technological change, market forces, and activism. Maternal mortality and gender gaps in education have declined in countries including Bangladesh, Cambodia, India, and Nepal. Many countries have increased women's labour-force participation, but participation has fallen in Bangladesh, India, and Sri Lanka, a trend that may be linked to rising household income.
- Mapping the road ahead, policy makers, companies, and non-governmental organisations could consider prioritising action in five areas that are urgent issues (to differing degrees) across the region: (1) focus on higher female labour-force participation, with steps to address unpaid care work as a priority to boost economic growth; (2) address the pressing regional and global issue of women's underrepresentation in business leadership positions; (3) capture the economic and social benefits of improving access to digital technology; (4) shift social attitudes about women's role in society and work in order to underpin progress on all aspects of gender inequality; and (5) collaborate on regional solutions as powerful catalysts for gender equality.

The economic case for gender parity in Asia Pacific

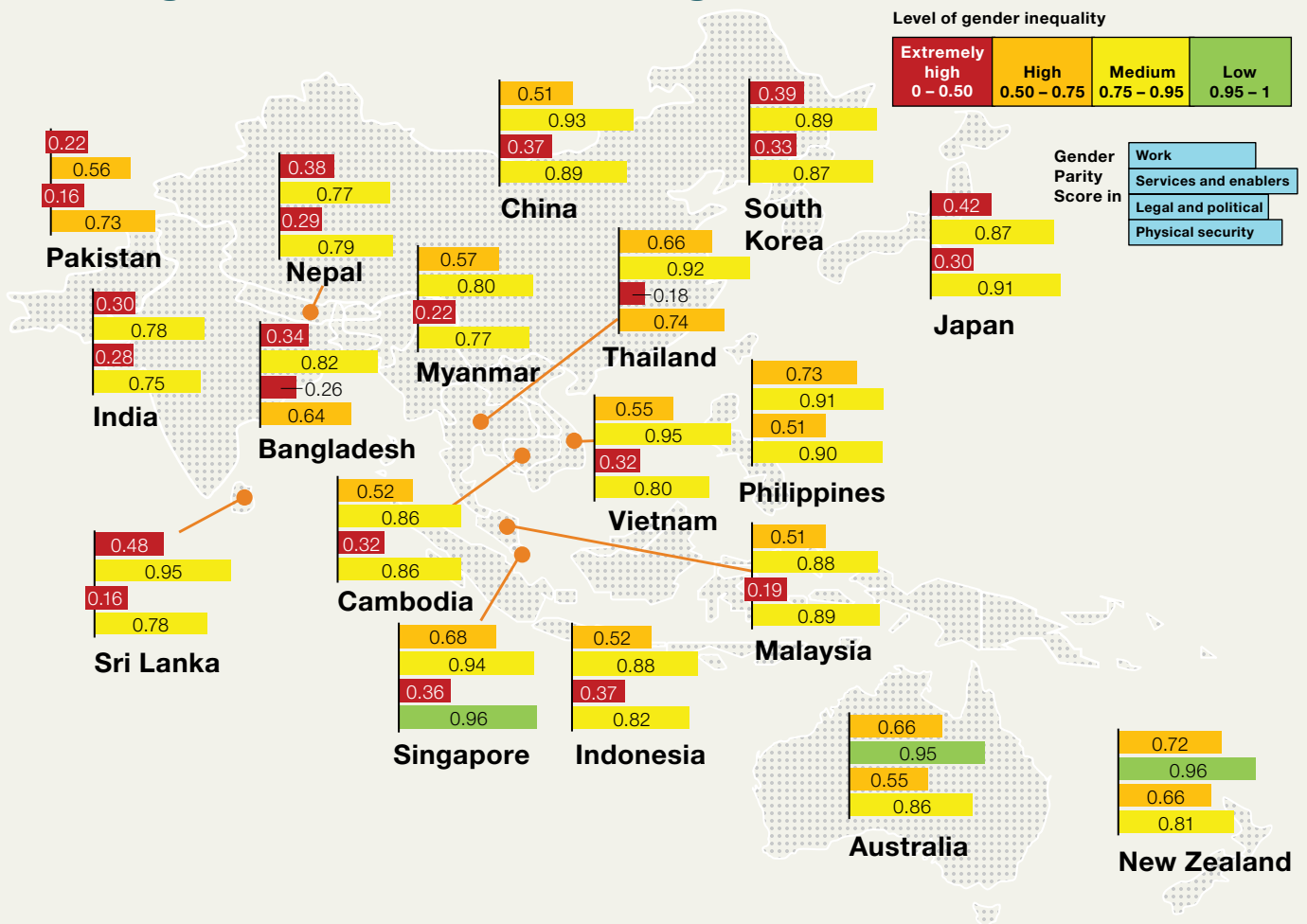


\$4.5 trillion

of **additional annual GDP** in 2025 could be added to the economies of Asia Pacific by advancing women's equality

or **12%** above business-as-usual GDP in 2025¹

Gender inequality is high overall in Asia Pacific, with significant variations among countries²



Five areas for change in Asia Pacific

- Focus on higher female labour-force participation in quality jobs as a priority to boost economic growth
- Address the pressing regional and global issue of women's underrepresentation in business leadership positions
- Capture the economic and social benefits of improving women's access to digital technology
- Shift attitudes about women's role in society and work, in order to underpin progress on all aspects of gender equality
- Collaborate on regional solutions, such as financing and knowledge-sharing, as powerful catalysts for gender equality

¹ GDP opportunity in scenario where all countries match their best-in-region country in progress towards gender parity.

² GPS scores are made up of 15 indicators of gender equality in work and society, weighted equally. GPS runs from 0 (no gender equality) to 1.0 (parity); for instance, a 0.95 ratio represents 5% distance from gender parity.

SOURCE: McKinsey Global Institute analysis



THE PATH TO PARITY: AN ASIA PACIFIC OVERVIEW

Asia Pacific is today arguably the most dynamic region in the world, a global engine of growth driven by productivity, investment, technology, and innovation. Women can help—and are helping—to power this engine, making vital contributions to sustaining and enhancing Asia's growth and lifting more people out of poverty. Yet gaps remain large in many countries in the region on gender equality both in work and in society. From an economic perspective, trying to grow without enabling the full potential of women is like fighting with one hand tied behind one's back.

By advancing women's equality, the economies of Asia Pacific could boost their collective GDP by \$4.5 trillion a year by 2025, a 12 percent increase over business-as-usual GDP. This additional GDP would be equivalent to adding an economy the combined size of Germany and Austria each year. China and India would benefit most in absolute and relative terms, respectively. Advancing women's equality not only is important from a moral and social perspective, but also delivers a considerable growth dividend.

This research builds on MGI's landmark 2015 report on global gender inequality, *The power of parity: How advancing women's equality can add \$12 trillion to global growth*, which found that advancing women's equality could add \$12 trillion to annual global GDP by 2025. Every region studied has the potential to increase its GDP by 8 to 16 percent over the next ten years. MGI used 15 economic and social indicators to compile a Gender Parity Score, or GPS, for each country.¹

Asia Pacific countries are grappling with many of the same challenges and opportunities that we see around the world. But there is no one Asia Pacific story. Rather, there is huge variation throughout the region in both gender outcomes and the drivers of those outcomes, whether economic, cultural, political, or environmental. Yet we believe that using a regional lens to look at these complex, interrelated issues of gender inequality can aid understanding of common challenges, potential solutions, and key differences.

First, the sheer size of the region in population and GDP terms means that regional solutions could be possible and, if initiated, could be rolled out on a significant scale. Second, many multinational businesses operate across national borders within the region, including companies whose global supply chains are heavily dependent on Asia Pacific. They represent a potentially catalytic opportunity, as multinational corporations bring a wider range of organisational practices to individual labour markets within Asia Pacific. Third, there is merit in bringing countries grappling with various gender equality issues into one conversation, so that they can share best practices and learn lessons from one another's experience.

In Chapter 1, we investigate the cross-cutting issue of women in leadership positions in business, an aspect of gender inequality that is highly relevant in the region and globally. We suggest some key measures that would help to raise the number—and share—of women in companies from the entry level to middle management to the boardroom. Then, in the following chapters, we focus in greater detail on the seven countries studied in depth for this research (Australia, China, India, Indonesia, Japan, the Philippines, and Singapore)

¹ *The power of parity: How advancing women's equality can add \$12 trillion to global growth*, McKinsey Global Institute, September 2015.

(see Box 1, “Approach to country discussions,” and Box 3, “Gender inequality in seven Asia Pacific countries”).

AN ADDITIONAL \$4.5 TRILLION A YEAR COULD BE ADDED TO ASIA PACIFIC GDP BY 2025 BY ACCELERATING PROGRESS TOWARDS GENDER PARITY

Today, women account for half of the combined population of Asia Pacific but contribute 36 percent of the \$26 trillion of GDP currently generated (Exhibit 1). This is in line with the global figure of 36 percent. We note that current traditional measures of GDP do not capture the very significant economic value that women create through unpaid care work in the home such as looking after children and the elderly, shopping, cooking, and cleaning. Using conservative assumptions, we estimate that the unpaid care work undertaken by women in Asia Pacific, if included in measurement of GDP, would add \$3.8 trillion to the regional total, equivalent to roughly 15 percent of the region’s GDP.²

² This figure is estimated from minimum wage multiplied by time spent on unpaid work.

Box 1. Approach to country discussions

The seven countries we focus on in this research are home to more than 80 percent of the region’s female population and account for 90 percent of the total \$4.5 trillion GDP opportunity in the 18 Asia Pacific countries included in our estimate. They vary widely in their stage of economic development, cultural norms, and performance on different aspects of gender inequality.

For each country, we have highlighted the economic opportunity from advancing women’s equality and dimensionalised gender gaps. We have also homed in on key topics in each country chapter, chosen because they are of national interest and importance in those countries and have gender-disaggregated data available. Some of these topics build on current strengths, while others are pockets of continuing gender inequality that need to be addressed. We note that these topics are not exclusively relevant to a particular country. In many cases, they are aspects of gender inequality that will resonate in many countries. The topics we have chosen for each of the seven countries are illustrative, not exhaustive. We have focused more closely on gender equality in work and the direct enablers of economic opportunity, while fully acknowledging the importance of areas such as gender equality in political leadership, and physical safety and security, to help countries move to gender parity.

Measures needed to accelerate progress towards parity differ. For each country, we have identified some of the significant gaps and opportunities

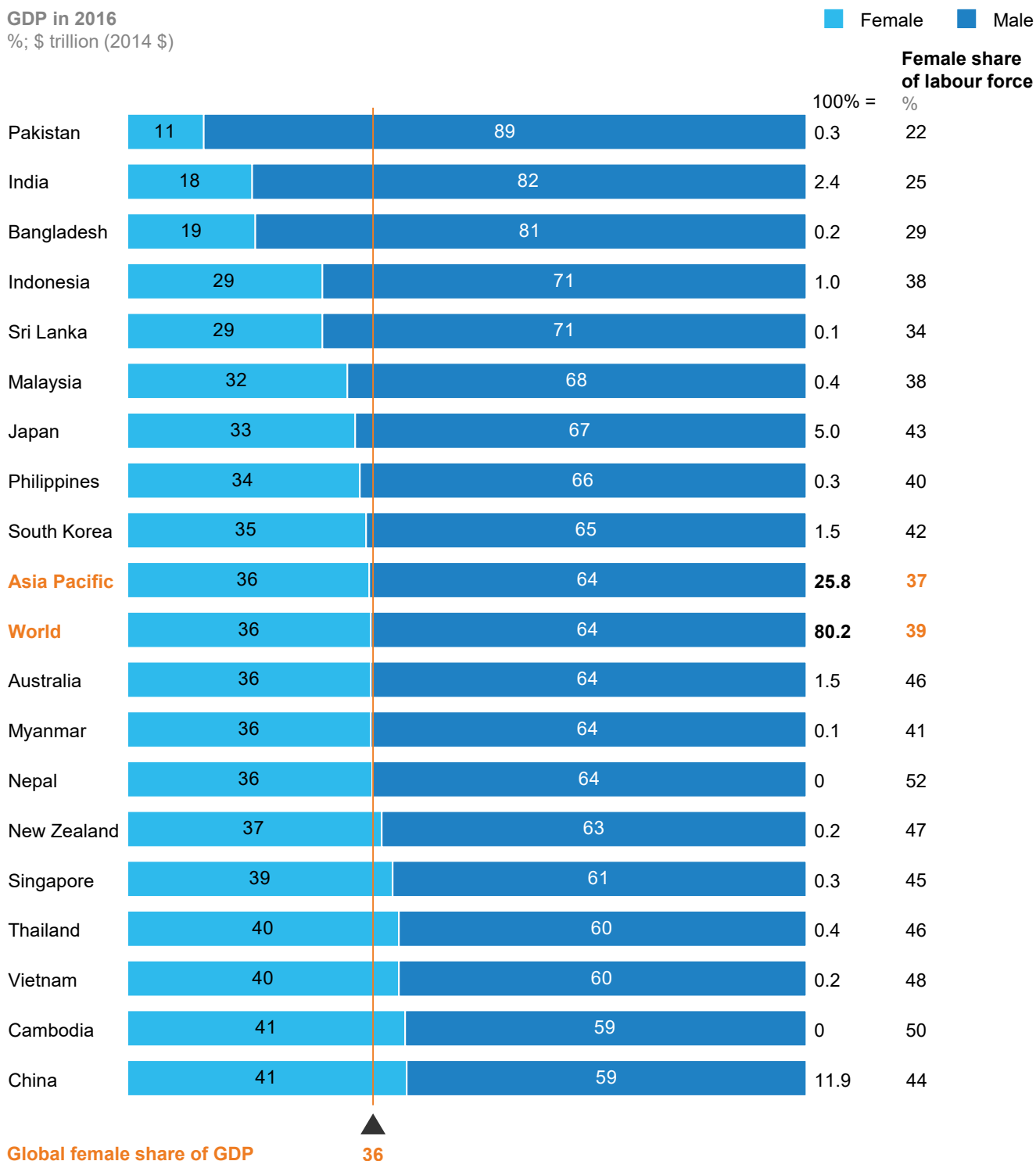
in gender inequality and have examined measures to address them through actions by governments, corporations, non-governmental organisations, and individuals. The measures that we discuss are, by definition, not exhaustive—a broader suite of measures will be needed to fully address gender imbalances. We note, too, that approaches relevant to the formal sector may not be effective in the informal or agricultural sectors.¹ For instance, tax measures and workplace policies such as parental leave may be suitable for the formal sector but not for others, and action to open up access to digital technologies and financial services may be most necessary for those at lower income levels who often live in rural areas and work informally.

In Exhibit 9 at the end of this chapter, we summarise recommended measures that are discussed in each subsequent chapter of this report. We identify five areas that countries might prioritise: (1) focus on higher female labour-force participation, with steps to address unpaid care work as a priority to boost economic growth; (2) address the pressing regional and global issue of women’s underrepresentation in business leadership positions; (3) capture the economic and social benefits of improving access to digital technology; (4) shift social attitudes about women’s role in society and work in order to underpin progress on all aspects of gender inequality; and (5) collaborate on regional solutions as powerful catalysts for gender equality.

¹ Hundreds of millions of women worldwide work informally without social and labour protections in law or in practice. Bringing these women under the protection of regulatory regimes—specifically through measures covering recognition as workers, regulated access to public spaces, freedom of association and collective bargaining, and access to social protection—will be important to addressing gender inequality in countries with large informal sectors, such as India. See *Leave no one behind: A call to action for gender equality and women’s economic empowerment*, Report of the UN Secretary-General’s High-Level Panel on Women’s Economic Empowerment, 2016.

Exhibit 1

Women’s contribution to GDP ranges from 11 to 41 percent across Asia Pacific; the Asia Pacific average is in line with the global average



SOURCE: ILO; World Input-Output Database; IHS; national statistical agencies; Oxford Economics; McKinsey Global Growth Model; McKinsey Global Institute analysis

On the paid work that is measured in GDP statistics, there is significant variation in the share that women contribute among Asian economies. For instance, in China, which generates almost half the region’s GDP and accounts for 35 percent of the region’s female population, women contribute an above-average 41 percent to GDP. However, in India, which generates almost 10 percent of regional GDP and is home to 33 percent of the region’s combined female population, the share is well below average at 18 percent.

MGI's 2015 global report on the power of parity assessed the size of the growth opportunity that could be seized if each country were to narrow its labour-market gender gaps at the same rate as the fastest-improving country in its region.³ In Asia Pacific, most countries would increase female labour-force participation rates relative to male labour-force participation rates for 25- to 54-year-olds at a rate of 1.1 percentage points a year, in line with the experience of Singapore between 2003 and 2013.⁴ At these rates of progress, the region's average labour-force participation rate for prime working-age women would reach 54 percent by 2025, an increase of seven percentage points from 2016. On the second source of additional GDP related to gender equality in work—closing the gap between the paid hours women work compared with men—all countries in the region would bridge the gap by 0.6 percentage point per year, in line with Norway, the country that closed the gap the fastest in the period from 1995 to 2013.⁵ Finally, on the migration of workers to higher-productivity sectors, most countries would increase the share of women moving into such sectors at a rate 0.5 percentage point faster than men, matching the performance of Indonesia.⁶

In a best-in-region scenario for Asia Pacific, we estimate that the region overall could add \$4.5 trillion of GDP a year by 2025 (Exhibit 2). This represents 12 percent more than would be generated according to current forecasts of GDP for 2025. The largest absolute opportunity is in China at \$2.6 trillion, a 13 percent increase over business-as-usual GDP. The largest relative opportunity is in India, which could achieve an 18 percent increase over business-as-usual GDP, or \$770 billion.

MGI's calculation is a supply-side estimate of the size of the additional GDP available from closing the gender gap in employment. It takes into account labour-force participation rates by gender and age cohorts, the prevalence of part-time vs. full-time work among men and women, and employment patterns for men and women across sectors of the economy (see the appendix for more detail). We acknowledge that the supply-side approach needs to be accompanied by demand-side policies that could influence the ability to create jobs to absorb additional female workers. In addition, education and vocational training systems will need to keep pace with rapid technological changes that are altering the nature of work and creating new types of jobs.

To achieve this significant boost to growth will require the region to tackle three economic levers: increase women's labour-force participation rate, increase the number of paid hours women work (part-time vs. full-time mix of jobs), and raise women's productivity relative to men's by adding more women to higher-productivity sectors. Of the total \$4.5 trillion GDP opportunity, 58 percent would come from raising the female-to-male labour-force participation ratio, in line with the global average contribution. A further 17 percent of the GDP opportunity would come from increasing the number of paid hours women work, and the remaining 25 percent from more women working in higher-productivity sectors.

³ In our calculation of the GDP opportunity, we assumed the same labour productivity for men and women within sectors. We excluded any second-order impact from the increased participation by women, including increased consumption by women, any negative impact on male labour-force participation due to increased female participation, and any drag on productivity due to increased labour supply (see the appendix for more detail).

⁴ This benchmark improvement rate was applied to 11 countries, while different rates were applied to other countries (see the appendix for more detail).

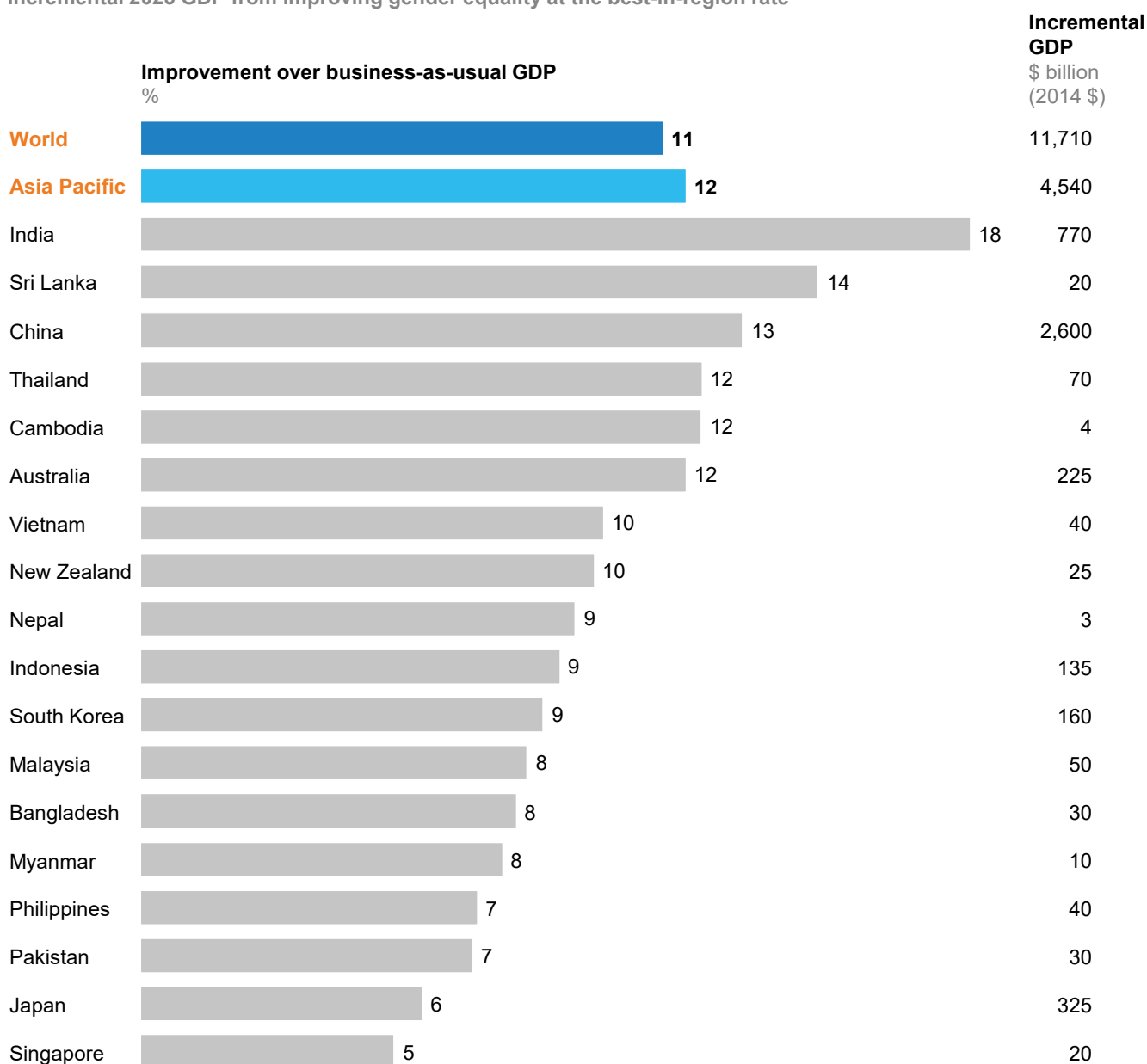
⁵ We benchmarked to Norway because there were not sufficient regional benchmarks, and therefore we chose a global one. Norway was identified as the best performer in a sample of 30 countries, most of which are developed economies. See the appendix of *The power of parity: How advancing women's equality can add \$12 trillion to global growth*, McKinsey Global Institute, September 2015.

⁶ For women's labour-force participation rate and high-productivity sector mix, different rates of improvement were applied to Australia, Bangladesh, India, Nepal, New Zealand, Pakistan, and Sri Lanka to adjust for local circumstances (see the appendix for further detail).

Exhibit 2

In a best-in-region scenario, Asia Pacific could add \$4.5 trillion to annual GDP by 2025, or 12 percent above business as usual

Incremental 2025 GDP from improving gender equality at the best-in-region rate



SOURCE: ILO; World Input Output Database; Oxford Economics; IHS; national statistical agencies; McKinsey Global Growth Model; McKinsey Global Institute analysis

It is difficult to quantify the mechanisms through which increased women’s participation becomes possible (that is, whether it is due to reduced leisure, reduced hours in unpaid work, redistribution of unpaid care work, or the marketisation of that work). However, it is clear that women who are freed from spending some time in unpaid care work would have more opportunity to use and improve their skills and pursue higher-paid professions, boosting GDP. We therefore estimate the economic impact only in GDP terms, while acknowledging that this lens does not measure total welfare and total economic activity. The impact of unpaid work on economic activity and wellbeing warrants further study.

Delivering the power of parity will require investment. Previous MGI research estimated that achieving the \$4.5 trillion GDP opportunity in Asia Pacific will require around \$1.5 trillion of

incremental investment to 2025 to support additional workers, roughly 12 percent higher than the business-as-usual scenario for the region.⁷ Beyond capital to support additional jobs, investment will be needed to close gender gaps in health, education, and other services to enable women to participate more fully in the formal economy. In a 2016 paper, MGI estimated that 20 to 30 percent more spending would be required worldwide to tackle these key aspects of gender inequality in society. However, the return on that investment could be six to eight times higher than the additional social spending required.⁸

THE REGION'S ECONOMIES EXHIBIT MAJOR DIFFERENCES IN THE PATTERNS AND EXTENT OF GENDER INEQUALITY

Gender inequality does not exist purely in the workplace—it affects women's life in society, too. Indeed, one influences the other. Progress on gender equality in work is unlikely to be achievable without progress on gender equality in society. Realising the power of parity will require addressing societal drivers of gender inequality in the workplace including education, health, attitudes towards women working outside the home, access to finance, and more access for women to the internet and the benefits of the digital revolution. That is why MGI uses the broadest possible lens to examine gender inequality.

In its 2015 global analysis of gender inequality, MGI mapped 15 gender equality indicators to arrive at a Gender Parity Score or GPS that runs from 1 (gender parity) to zero (full gender inequality). We colour code four categories: “low inequality” (green), “medium inequality” (yellow), “high inequality” (orange), and “extremely high inequality” (red).⁹ MGI's GPS analysis looks at gender equality in work and in society in the following four dimensions:¹⁰

- **Gender equality in work:** This includes the ability of women to find employment and be compensated fairly for it, share unpaid care work equitably, have the skills and opportunity to perform higher-productivity jobs, and occupy leadership positions. Five indicators are included in this category: labour-force participation rate, professional and technical jobs, perceived wage gap for similar work, leadership positions, and unpaid care work.
- **Essential services and enablers of economic opportunity:** These include healthcare, education, and financial and digital services that are also vital enablers of social progress. We include five indicators in this dimension: unmet need for family planning, maternal mortality per 100,000 births, education level, financial inclusion, and digital inclusion.

⁷ The best-in-region scenario assumes that many women shift out of agriculture into industry and service sectors, narrowing gender productivity gaps, but achieving this shift will require investment: productivity-boosting investment in agriculture (that is, losing workers), and investment to create jobs in the sectors to which women are migrating. Several MGI country studies have discussed measures that can stimulate investment and job creation for inclusive growth. See MGI's reports on Africa, Brazil, Europe, India, and Nigeria, all downloadable free at www.mckinsey.com/mgi. Also see *Global growth: Can productivity save the day in an aging world?* McKinsey Global Institute, January 2015.

⁸ *Delivering the power of parity: Toward a more gender-equal society*, McKinsey Global Institute discussion paper, May 2016.

⁹ For most indicators, low inequality is defined as being within 5 percent of parity, medium between 5 and 25 percent, high between 25 and 50 percent, and extremely high as greater than 50 percent from parity. For physical security and autonomy indicators, we defined extremely high inequality as greater than 33 percent distance from no prevalence (of child marriage or violence against women). For sex ratio at birth and maternal mortality, given the different range of values for these two indicators, slightly different thresholds were used. See the appendix to this report and, for full details of the methodology used in MGI power of parity reports since 2015, the appendix of *The power of parity: How advancing women's equality can add \$12 trillion a year to global growth*, McKinsey Global Institute, September 2015.

¹⁰ MGI has aimed to map gender equality as comprehensively as possible. The indicators we chose typically measure the difference between the position of men and women; these are expressed as a ratio of female-to-male data. Exceptions are sex ratio at birth and unpaid care work, which are expressed as male-to-female ratios. For indicators that apply only to females—child marriage, violence against women, family planning, and maternal mortality—we used the absolute level expressed as a prevalence rate in percentage terms.

- **Legal protection and political voice:** This includes the right to work, access institutions, inherit assets, be protected from violence, and have the opportunity to participate actively in political life.¹¹
- **Physical security and autonomy:** This is the right of women to be safe from bodily harm. We include three indicators: sex ratio at birth, child marriage, and violence against women.

Asia Pacific as a whole has a GPS of 0.56—high gender inequality, according to MGI’s GPS analysis—slightly lower than the global average GPS of 0.61. It places Asia Pacific in the middle of the pack globally, comparing favourably with the Middle East and North Africa (0.50) and in line with sub-Saharan Africa (0.57), but lagging behind Latin America (0.63), Eastern Europe (0.67), and Western Europe (0.71). Globally, some aspects of gender equality are persistent problems in most parts of the world, while in others, some regions have made rapid strides relative to others (see Box 2, “Ten impact zones: Five global and five regional”).

Within Asia Pacific, all countries have some way to go before attaining gender parity, although the patterns of progress towards that ultimate goal vary (Exhibit 3). Differences in gender equality among countries are greater in work-related indicators than in societal indicators, although the two are closely linked. The Philippines stands out for the extent of its progress towards gender equality in work, followed by New Zealand and Singapore. The six countries that are furthest away from gender parity in work, performing well below the regional average, are Bangladesh, India, Japan, Nepal, Pakistan, and South Korea. The countries that are the closest to gender parity in society are Australia and New Zealand—with the most progress towards parity in essential services and enablers of economic opportunity, and legal protection and political voice—and Singapore, which is most advanced towards parity on physical security and autonomy. Pakistan has room to improve on most aspects of gender equality in society, and its South Asian neighbours Bangladesh, India, and Nepal also have a considerable distance to travel. Legal protection and political voice stands out as an area in which many countries of Asia Pacific have much progress to make.

¹¹ We use a composite index of 11 indicators spanning laws to protect individuals against violence, ensure parity in inheriting property and accessing institutions, and safeguard the right to find work and be fairly compensated.

Box 2. Ten impact zones: Five global and five regional

MGI’s global research in 2015 identified ten “impact zones”—concentrations of gender inequality that cover more than three-quarters of the women in the world affected by the gender gap. Five of these impact zones are global: blocked economic potential, time spent on unpaid care work, fewer legal rights, political underrepresentation, and violence against women. As global impact zones, these are present in Asia Pacific in varying degrees—for instance, violence against women is lower in East Asia than in other subregions. Five other impact zones are regional, and appear in parts of Asia Pacific.

Low labour-force participation in quality jobs is particularly problematic in South Asia (except Sri Lanka). Low maternal and reproductive health is an issue in the region’s lower-income countries such as Nepal. Unequal education levels are a particular issue in Pakistan. Financial and digital exclusion appears mainly in South Asia (except Sri Lanka) and Myanmar. Finally, girl-child vulnerability, which we measure using the indicators of sex ratio at birth and child marriage, is a pressing issue in China, India, and Vietnam.¹ The recommendations in this report are not exhaustive and therefore do not address all ten impact zones.

¹ *The power of parity: How advancing women’s equality can add \$12 trillion to global GDP*, McKinsey Global Institute, September 2015.

Exhibit 3

Countries across Asia Pacific have a significant way to go to bridge the gender gap

Gender Parity Score (GPS) Level of gender inequality ■ Extremely high ■ High ■ Medium ■ Low

Region	Country	Female population, 2016 Million	Gender equality in work ¹	Gender equality in society			
				Essential services and enablers of economic opportunity ²	Legal protection and political voice ³	Physical security and autonomy ⁴	
Oceania	Australia	11.9	0.66	0.95	0.55	0.86	
	New Zealand	2.3	0.72	0.96	0.66	0.81	
East Asia	China	671.2	0.51	0.93	0.37	0.89	
	Japan	65.2	0.42	0.87	0.30	0.91	
	South Korea	24.9	0.39	0.89	0.33	0.87	
Southeast Asia	Indonesia	125.6	0.52	0.88	0.37	0.82	
	Philippines	50.0	0.73	0.91	0.51	0.90	
	Vietnam	46.8	0.55	0.95	0.32	0.80	
	Thailand	34.3	0.66	0.92	0.18	0.74	
	Myanmar	27.6	0.57	0.80	0.22	0.77	
	Malaysia	15.5	0.51	0.88	0.19	0.89	
	Cambodia	7.9	0.52	0.86	0.32	0.86	
	Singapore	2.8	0.68	0.94	0.36	0.96	
	South Asia	India	612.2	0.30	0.78	0.28	0.75
		Pakistan	90.0	0.22	0.56	0.16	0.73
Bangladesh		78.4	0.34	0.82	0.26	0.64	
Nepal		14.5	0.38	0.77	0.29	0.79	
Sri Lanka		11.0	0.48	0.95	0.16	0.78	
Asia Pacific best			0.73	0.96	0.66	0.96	
Asia Pacific average⁵			0.44	0.85	0.32	0.82	
Global best			0.73	0.97	0.84	0.97	

1 Comprising labour-force participation, professional and technical jobs, perceived wage gap for similar work, leadership positions, and unpaid care work.

2 Comprising unmet need for family planning, maternal mortality, education, financial inclusion, and digital inclusion.

3 Comprising political representation and a legal protection index (including, for example, legislation protecting against domestic violence, providing equal inheritance rights and paternity or parental leave, and mandating non-discrimination in hiring).

4 Comprising sex ratio at birth, child marriage, and violence against women.

5 Weighted by 2016 female population.

NOTE: GPS calculations use a sum of squares method with equal weighting of indicators. Numbers are rounded to two decimal places. Colour coding is based on actual, not rounded, values. For further details on this, and the underlying GPS indicators, see the appendix.

SOURCE: McKinsey Global Institute analysis

At the level of individual indicators, the differences between countries—and the opportunities for improvement—are even clearer (Exhibit 4). Within gender equality in work, the female-to-male ratio in labour-force participation ranges from 0.92 in Nepal to 0.30 in Pakistan, but getting more women into the labour force is a major opportunity in many countries, including Bangladesh, India, Indonesia, Japan, Malaysia, and South Korea. The ratio of women vs. men in professional and technical jobs is above 1.00 in seven countries, including Australia, China, New Zealand, the Philippines, and Thailand, but less than 0.5 in Bangladesh, Nepal, and Pakistan. The low level of women in leadership positions is apparent throughout the region, with only the Philippines achieving a female-to-male ratio of close to 1.00 on this indicator. Unpaid care work is unequally distributed between men and women, not only in countries with low female labour-force participation rates, but also in Australia, China, and New Zealand, where many more women are part of the paid workforce.

Within gender equality in society, gender gaps in education are relatively narrow in most countries, although maternal mortality and financial and digital inclusion are significant improvement opportunities in most parts of South Asia and Southeast Asia. Sex ratio at birth is a stubborn issue in China, India, and Vietnam where the male-to-female ratio exceeds 1.10. Child marriage is a particularly common issue for girls and women in Bangladesh, and violence against women continues to be prevalent in many countries. Most countries of Asia Pacific can also improve substantially on legal protection and political voice.

While gender outcomes vary significantly among Asia Pacific countries, our analysis shows equally large variations within certain countries (Exhibit 5). Countries such as India and Indonesia with significant geographic and economic diversity tend to have the highest internal variations. For example, the female-to-male labour-force participation ratio is approximately 0.8 in the Indian state of Nagaland (higher than in Brazil) but below 0.2 in Chandigarh and Delhi (lower than in Saudi Arabia). In the Indonesian provinces of Sumatera Barat and Lampung, the female-to-male tertiary education ratios are 1.36 and 1.38, respectively—similar to the United States—but 0.69, close to the national average in Kenya, in Nusa Tenggara Barat. Interestingly, subnational variations seem less dramatic in China and the Philippines despite their internal diversity.

Variations in gender outcomes between and within countries appear to be broadly correlated with differences in per capita GDP, but there are clearly non-economic factors at play. Consider China and India, which have marked variations in per capita GDP at the subnational level but very different patterns of gender inequality. Essentially, variations in gender outcomes are much larger in India than they are in China, which may reflect the presence of non-economic factors such as local cultural norms.

The fact that there is large variation in gender outcomes among the region's constituent economies underscores the need for national governments to tailor measures designed to further women's equality to the particular economic and social context of their individual nations. At the same time, the many aspects of gender inequality that countries experience in common indicate that there are opportunities for governments, companies, and non-governmental organisations (NGOs) to collaborate, learning from one another's experiences and spreading best practices (for more, see the final section of this summary on the agenda for change).

Exhibit 4

Asia Pacific's performance varies on gender equality indicators (1 of 2)

Level of gender inequality ■ Extremely high ■ High ■ Medium ■ Low

Region	Country	Female population, 2016 Million	Per capita GDP, 2016 \$, current purchasing power parity	Gender equality in work				
				Labour-force participation rate F/M ratio	Professional and technical jobs F/M ratio	Perceived wage gap for similar work F/M ratio	Leadership positions F/M ratio	Unpaid care work M/F ratio
Oceania	Australia	11.9	46,790	0.83	1.19	0.60	0.58	0.55
	New Zealand	2.3	39,059	0.85	1.25	0.71	0.67	0.58
East Asia	China	671.2	15,535	0.81	1.07	0.59	0.20	0.39
	Japan	65.2	41,470	0.70	0.66	0.61	0.15	0.21
	South Korea	24.9	35,751	0.70	0.93	0.45	0.12	0.19
Southeast Asia	Indonesia	125.6	11,612	0.61	0.94	0.63	0.30	No data
	Philippines	50.0	7,806	0.64	1.42	0.76	0.96	No data
	Vietnam	46.8	6,424	0.89	1.19	0.58	0.35	No data
	Thailand	34.3	16,917	0.79	1.31	0.73	0.48	0.56
	Myanmar	27.6	5,773	0.93	1.12	No data	0.40	No data
	Malaysia	15.5	27,681	0.64	0.80	0.76	0.26	No data
	Cambodia	7.9	3,736	0.87	0.57	0.72	0.45	0.25
	Singapore	2.8	87,856	0.76	0.91	0.78	0.52	No data
South Asia	India	612.2	6,572	0.34	No data	0.50	No data	0.10
	Pakistan	90.0	5,249	0.30	0.28	0.48	0.03	0.10
	Bangladesh	78.4	3,581	0.53	0.39	0.46	0.13	0.27
	Nepal	14.5	2,468	0.92	0.43	0.52	0.22	No data
	Sri Lanka	11.0	12,316	0.40	0.97	0.63	0.33	No data
Asia Pacific best				0.93	1.42	0.78	0.96	0.58
Asia Pacific average¹				0.60	0.95	0.56	0.25	0.25
Global best				1.00	2.66	0.86	1.13	0.85

¹ Weighted by 2016 female population.

NOTE: For further details on the indicators used here, see the appendix.

SOURCE: McKinsey Global Institute analysis

Exhibit 4 (continued)

Asia Pacific's performance varies on gender equality indicators (2 of 2)

Level of gender inequality ■ Extremely high ■ High ■ Medium ■ Low

		Gender equality in society									
		Essential services and enablers of economic opportunity					Legal protection and political voice		Physical security and autonomy		
Region	Country	Unmet need for family planning	Maternal mortality	Education level	Financial inclusion	Digital inclusion	Legal protection Index	Political representation F/M ratio	Sex ratio at birth	Child marriage	Violence against women
		% of women	Per 100,000 births	F/M ratio	F/M ratio	F/M ratio			M/F ratio	% of girls and young women	% of women
Oceania	Australia	11	6	1.00	1.00	1.00	1.00	0.36	1.06	1	25
	New Zealand	9	11	1.00	1.00	1.00	0.83	0.55	1.06	1	33
East Asia	China	4	27	0.97	0.87	No data	0.58	0.20	1.16	3	15
	Japan	20	5	0.95	0.80	0.97	0.51	0.14	1.06	1	15
	South Korea	6	11	0.86	0.81	0.93	0.58	0.15	1.07	0	23
Southeast Asia	Indonesia	12	126	0.98	0.81	0.86	0.45	0.29	1.05	26	No data
	Philippines	18	114	1.00	1.00	No data	0.70	0.37	1.06	2	18
	Vietnam	6	54	0.97	1.00	No data	0.47	0.19	1.10	8	34
	Thailand	6	20	0.98	0.84	0.98	0.29	0.09	1.06	11	44
	Myanmar	16	178	0.98	0.60	No data	0.39	0.08	1.03	12	38
	Malaysia	18	40	0.98	0.82	0.96	0.28	0.10	1.06	6	No data
	Cambodia	13	161	0.86	0.80	0.97	0.50	0.17	1.06	20	14
	Singapore	11	10	0.96	1.00	0.96	0.64	0.17	1.07	0	No data
South Asia	India	13	174	0.87	0.66	0.72	0.40	0.18	1.11	21	37
	Pakistan	20	178	0.74	0.17	0.59	0.20	0.12	1.09	27	39
	Bangladesh	12	176	0.84	0.83	0.73	0.39	0.16	1.05	34	53
	Nepal	23	258	0.84	0.74	No data	0.38	0.21	1.05	24	28
	Sri Lanka	7	30	0.99	0.96	No data	0.29	0.05	1.04	9	38
Asia Pacific best		4	5	1.00	1.00	1.00	1.00	0.55	1.03	0	14
Asia Pacific average¹		10	102	0.92	0.76	0.77	0.47	0.19	1.11	14	28
Global best		4	3	1.00	1.00	1.00	1.00	0.93	1.02	0	6

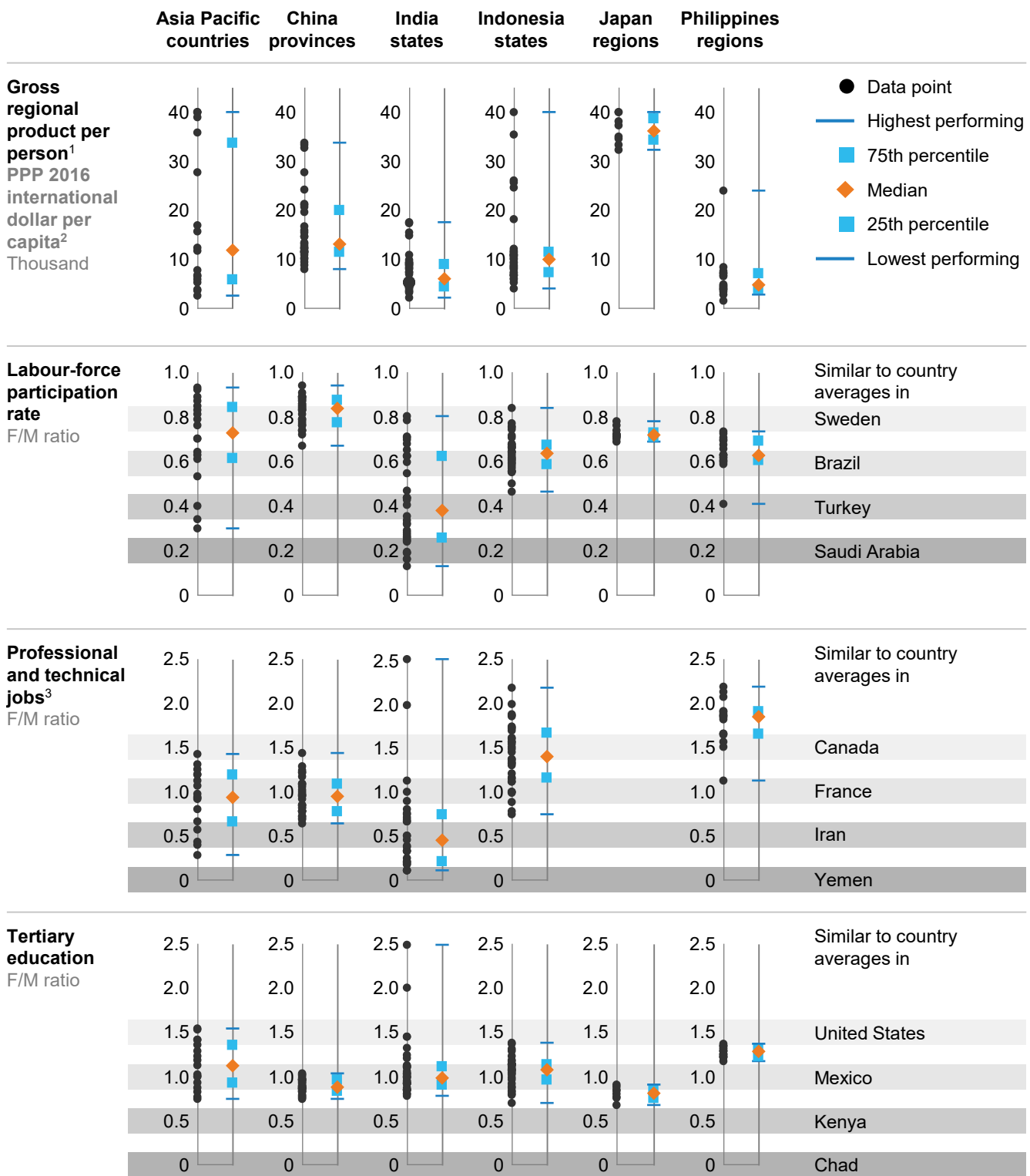
¹ Weighted by 2016 female population.

NOTE: For further details on the indicators used here, see the appendix.

SOURCE: McKinsey Global Institute analysis

Exhibit 5

There is significant variation in gender equality between and within Asia Pacific countries



1 For display purposes, values above \$40,000 have been set to \$40,000. In Asia-Pacific, this includes Australia (\$46,790), Japan (\$41,470) and Singapore (\$87,856). Within Indonesia, this includes DKI Jakarta (\$51,769). Within Japan, this includes Chubu (\$40,985) and Kanto (\$44,104).

2 Except Japan's regions, which are in PPP 2014 International dollar per capita.

3 For display purposes, outlier removed for professional/technical jobs in India: Lakshadweep (18.8 F/M), and Chandigarh set to 2.50 (2.52 F/M).

NOTE: Not to scale. Similar countries are representative only. Their values typically fall within or close to the bands depicted here.

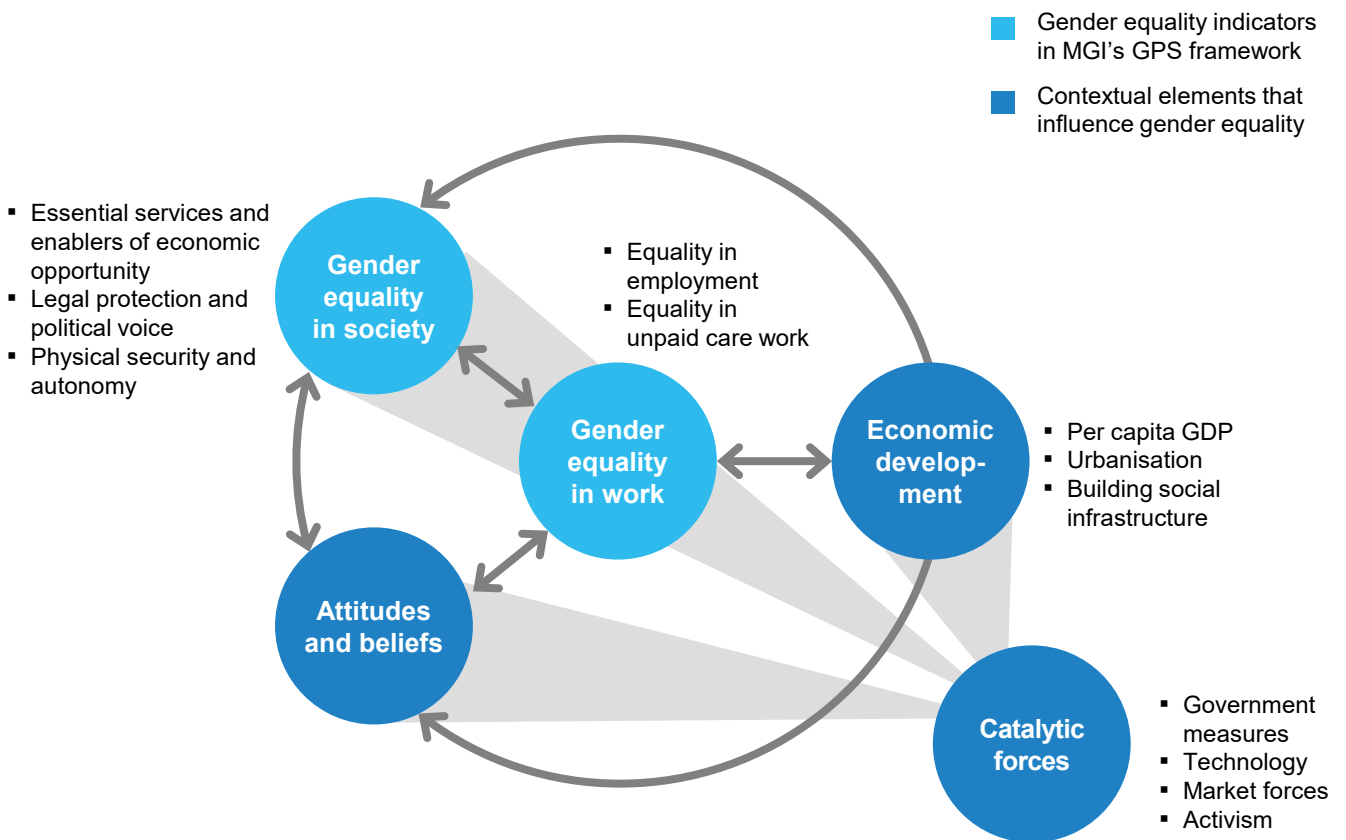
SOURCE: ILOSTAT, 2016; UNESCO STAT, 2016; World Bank, 2016; China National Bureau of Statistics, 2012, 2016; China Ministry of Human Resources and Social Security, 2011; India Ministry of Statistics and Programme Implementation, 2016; India Ministry of Labour and Employment, 2016; India Ministry of Human Resource Development, 2016; Statistics Indonesia, 2013, 2016; Japan Cabinet Office, Government of Japan, 2014; Japan Ministry of Internal Affairs and Communications, 2014, 2016; Obunsha Educational Information Center, 2017; Philippines Statistics Authority, 2015, 2016; IMF World Economic Outlook Database, 2017; McKinsey Global Institute analysis

ECONOMIC DEVELOPMENT HEAVILY INFLUENCES GENDER OUTCOMES IN ASIA PACIFIC, BUT OTHER NON-ECONOMIC FACTORS ARE ALSO SIGNIFICANT

Economic development has a significant influence on gender equality outcomes but does not fully account for differences between and within countries in Asia Pacific. Other factors at work include cultural attitudes and beliefs, and catalysts such as government action, technological development, market forces, and activism. These factors help to explain the significant variations in gender outcomes between—and within—Asia Pacific countries, and are often complex and mutually reinforcing: improvement on any of them is likely to have some positive impact on the others, creating a virtuous cycle (Exhibit 6).

Exhibit 6

Gender equality is shaped by contextual elements such as economic development, attitudes about women, and catalytic forces that provide impetus for change



SOURCE: McKinsey Global Institute analysis

- **Economic development:** Gender outcomes in Asia Pacific appear to be closely tied to the stage of economic development. In its 2015 global report on the power of parity, MGI conducted a correlation analysis suggesting that per capita GDP is strongly linked to almost all aspects of gender equality in society.¹² Economic development in itself can create momentum towards a further narrowing of gender gaps, provided countries use the dividend of higher GDP growth to boost investment in social infrastructure, for example education and healthcare. However, relying on economic development alone is a slow process. The fact that some aspects of gender inequality are present in both developing and advanced economies is testament to the fact that economic development alone cannot solve these complex issues. Moreover, there is a nuanced correlation between economic development and indicators of gender equality in work. Women’s labour-participation rates dip in middle-income countries and rise again in more advanced economies, reflecting not only cultural barriers and personal choices, but also changes in the opportunity cost of women working as opposed to caring for children and the elderly.¹³ The relationship between urbanisation and progress on gender inequality is also nuanced. While urbanisation generally correlates with growth in per capita GDP and improved gender outcomes, in the short term urbanisation may make it more difficult for some women to work for pay because employment in cities is more regulated and less flexible, and childcare is more expensive.

In Asia Pacific, economic development has a significant influence on gender equality outcomes but does not fully account for differences between countries (Exhibit 7). The correlation between economic development and progress towards gender parity is much clearer in the case of gender equality in society than in gender equality in work. In the case of gender equality in society, countries tend to cluster quite clearly into subregions broadly aligned with per capita GDP—South Asia, Southeast Asia, East Asia, and, finally, Australia and New Zealand in their own cluster. Yet the scores on gender equality in society in Japan, Singapore, and South Korea are more similar to those in China, Indonesia, and Vietnam than to those in other advanced economies in the region such as Australia and New Zealand. This highlights the influence of non-economic factors on gender outcomes.

On gender equality in work, countries in South Asia have the furthest to go before achieving parity, but Southeast Asian countries have generally advanced further than higher-GDP East Asian countries. The Philippines stands out for its achievements on narrowing gender gaps in work.

¹² While gender equality in society outcomes do improve with economic development, this does not mean that countries with high per capita GDP have “solved” gender equality in society issues. The evidence for this includes global impact zones of violence against women, underrepresentation of women in politics, and weak legal protection for women.

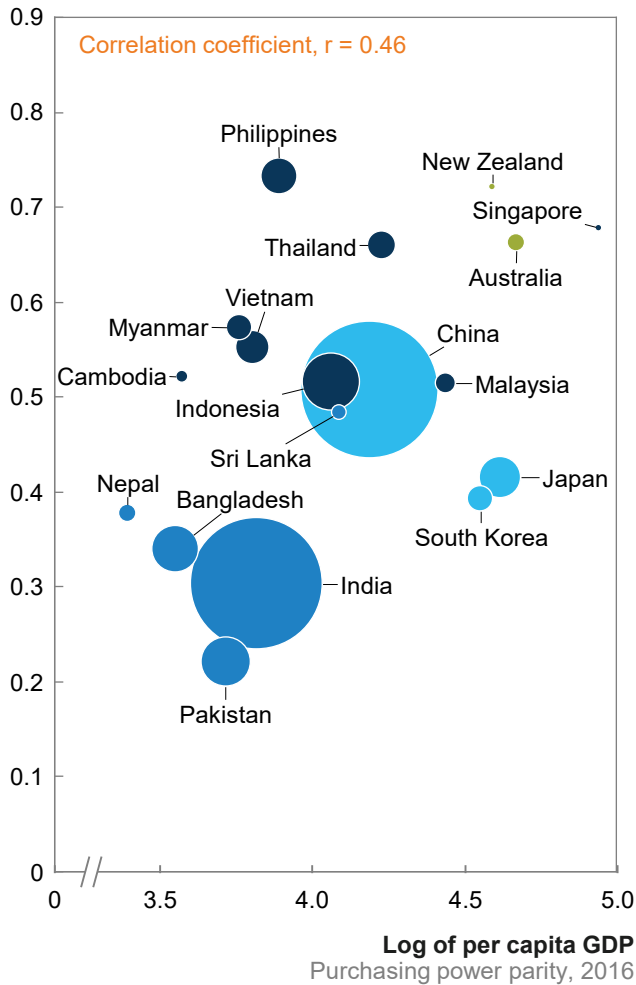
¹³ There is a U-shaped curve relationship between the participation of women of prime working age and per capita GDP. See Exhibit 8 in *The power of parity: How advancing women’s equality can add \$12 trillion to global growth*, McKinsey Global Institute, September 2015.

Exhibit 7

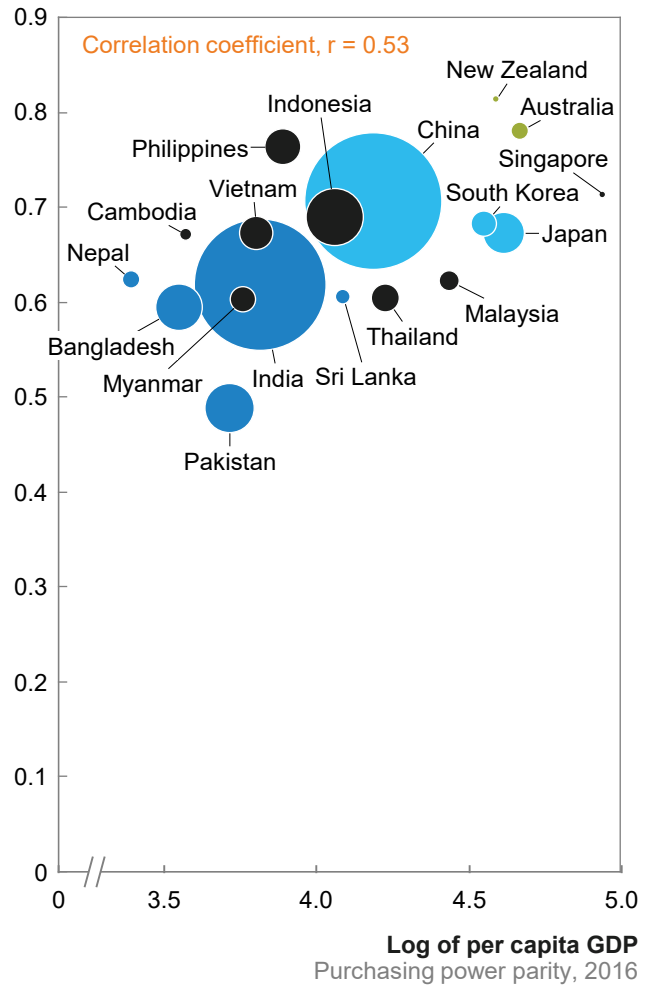
Equality in work and society tends to increase with per capita GDP, but with some variations

Bubble size = Female population, 2016 (million) 100 ● Oceania ● East Asia ● South Asia ● Southeast Asia

Gender Parity Score: Gender equality in work¹



Gender Parity Score: Gender equality in society²



1 Includes labour-force participation rate, professional and technical jobs, perceived wage gap for similar work, leadership positions and unpaid care work.
 2 Includes essential services and enablers of economic opportunity, legal protection and political voice, and physical security and autonomy.

SOURCE: McKinsey Global Institute analysis

- Cultural attitudes and beliefs:** Attitudes can affect gender outcomes in work and in society. We have analysed the World Values Survey and Organisation for Economic Co-operation and Development (OECD) data and found a strong link between societal attitudes that limit women’s potential and gender-equality outcomes in a given region.¹⁴ On average in Asia (excluding Australia and New Zealand), cultural attitudes reflected in the World Values Survey are similar to global averages. On women’s role in the workplace, for instance, 45 percent of respondents in Asia agree that men should have more right to a job than women when jobs are scarce, compared with 39 percent of respondents globally. Nearly half of respondents both in Asia and globally agree that children suffer when a mother works for pay. Cultural attitudes can reinforce expectations about the roles women are best equipped to play. In Indonesia, for example, the concept of *kodrat* embodies society’s expectation that women are

¹⁴ Throughout this report, we refer to the 2010–14 World Values Survey. See *WVS Wave 6 (2010–2014)*, (<http://www.worldvaluessurvey.org/WVSDocumentationWV6.jsp>).

nurturing and should take care of domestic commitments before engaging in any other activities.¹⁵ Beyond affecting the role of women in work, cultural attitudes can impact more fundamental notions of the value of women and girls in society. One example is the phenomenon of “son bias” or the preference for the male child. It results in a skewed male-to-female sex ratio at birth in countries such as China (1.16) and India (1.11), driven by sex-selective abortions and sometimes by younger girls being neglected in favour of their male siblings.¹⁶ Changing societal attitudes can play an important role in changing gender outcomes, but the link may not be obvious or sufficient. For example, the Philippines’ proportion of female political leaders is more than double that of Japan, despite the fact that twice as many Filipinos as Japanese agree with the statement that men make better political leaders than women. This may be driven by factors including legislated gender quotas at the subnational level in the Philippines since 1991—which have in turn influenced political parties to adopt their own voluntary quotas—underscoring the potential impact of catalytic forces such as government action on gender outcomes.¹⁷

- **Government measures:** Government measures—whether in the form of legislation, fiscal measures, programmatic change, or public-private partnerships—have the potential to influence gender outcomes directly, or indirectly by targeting society’s economic development or attitudes and beliefs. Asia Pacific offers many examples of government initiatives, often in conjunction with the private sector, and legislation leading to significant progress on certain gender equality indicators. For instance, the government of Singapore has clearly contributed to the city-state’s progress on inequality in labour-force participation through a range of policies that help women to balance family responsibilities and work. Measures in place include paid maternity leave, paid and unpaid childcare leave, increased tax relief, tax rebates, and childcare subsidies. As far back as 1978, the government put in place a Foreign Domestic Servant Scheme, enabling employment of women from other countries. This raised the rate of labour-force participation among married women by 145 percent between 1970 and 2016.¹⁸ In the Philippines, the government set up the Philippines Commission of Women to ensure the inclusion of gender policies at all levels of government. The commission also implemented gender and development budgeting, or GAD, which requires a minimum of 5 percent of the national government budget be allocated for gender and development initiatives such as microfinance pilot programmes to help informal-sector workers open bank accounts, and providing legal support to improve workplace safety and access to jobs. Australia’s federal Workplace Gender Equality Agency (WGEA) reviews compliance of employers with the Workplace Gender Equality Act 2012, including reporting on workforce representation and pay by gender, and offers support in designing gender initiatives. Similarly, legislation enacted in Japan in 2015 requires large companies (with more than 300 employees) to report on gender diversity and improvement plans. Action can also be taken by governments working together. For example, Asia-Pacific Economic Cooperation (APEC) has a number of gender initiatives, including collecting and reporting on regionwide gender-disaggregated data and helping member economies to develop Individual Action Plans for the Enhancement of the Ratio of Women’s Representation in Leadership, including voluntary targets.

¹⁵ Sari Andajani, Olivia Hadiwirawan, and Yasinta Astin Sokang, “Women’s leadership in Indonesia: Current discussion, barriers, and existing stigma”, *Indonesian Feminist Journal*, volume 4, number 1, March 2016.

¹⁶ A review of literature on sex ratio at birth found that the natural male-to-female ratio at birth is typically in the neighbourhood of 1.06. See Stephan Klasen and Claudia Wink, “Missing women: Revisiting the debate”, *Feminist Economics*, volume 9, issue 2–3, 2003.

¹⁷ *Enacting a women’s political participation and representation law*, policy brief number 4, Philippine Commission on Women (<http://www.pcw.gov.ph/wpla/enacting-women%E2%80%99s-political-participation-and-representation-law>).

¹⁸ While foreign workers in Singapore are offered protections under local laws, the International Labour Organization (ILO) notes that Singapore is the only country in the Association of Southeast Asian Nations that has yet to ratify its Convention on Domestic Workers.

- **Technology:** In the digital age, technological developments are likely to be a major factor in accelerating progress towards parity if their full power is harnessed. On digital inclusion of women, Asia Pacific has a GPS of 0.77, somewhat behind the global average of 0.85. GSMA has estimated that there are 1.1 billion unconnected women in low- and middle-income countries in the region.¹⁹ Yet use of digital technologies is truly transformative—it unlocks doors to finance and even healthcare, saves cost and time, and helps drive access to information and marketplaces, for instance.²⁰ Just as mobile banking enables women to avoid long journeys to the ATM or bank, technology-enabled healthcare delivered via phone or tablet can reach women even in the remotest areas and save them time travelling to see a doctor. In both cases, there is an impact on the time women spend on unpaid household or family tasks, and, for some women, access to services that were previously out of reach.²¹ Digital technologies offer channels to new customers and business models. Women-owned micro, small, and medium-sized enterprises (MSME) generate 35 percent of e-commerce revenue, compared with only 15 percent of offline MSME revenue.²² Digital technologies enable individual microentrepreneurs and even one-woman micromultinationals to sell to global markets at a low cost and with a high degree of flexibility—attractive characteristics for women balancing home and work responsibilities.²³ And digital technologies give women a low-cost and easy way to network and to have their voices heard as never before. In India, the rapid adoption of cable television—150 million individuals gained access between 2001 and 2006—has been identified as a potential driver of positive changes in attitudes towards women’s role in the household and reductions in domestic violence.²⁴
- **Market forces:** Competitive market forces can also be a positive catalyst for change. In technology, for example, market forces can make the internet more accessible to women. In 2015, 72 percent of women in India did not own a phone, compared with 57 percent of men, and in one survey half of Indian women said that the cost of a handset was the major reason.²⁵ But prices are heading downwards—the average cost of a smartphone in India has already fallen 45 percent in the past five years, opening up the possibility of owning one for many more women and giving them a gateway to a range of services, from finance to healthcare and education. A key reason for prices dropping has been competition. In India, for instance, Reliance Jio was able to reduce prices of data and voice packages by investing heavily in 4G, and other companies cut their prices in order to compete. Market forces in the skills market can also play a role in driving towards gender parity. In Australia, the shift from resource-intensive to service-based industries has been highlighted as a potential driver of faster growth in women’s labour-force participation relative to men.²⁶ Throughout the region, the emergence

¹⁹ *Bridging the gender gap: Mobile access and usage in low- and middle-income countries*, GSMA, 2015.

²⁰ MGI research in 2016 found that two billion people and 200 million businesses in emerging economies lack access to savings and credit, and that digital technologies can help to close this gap. The research found that financial services delivered via mobile phones and the internet could provide access to finance for 1.6 billion people in emerging economies, more than half of them women. Overall, widespread use of digital finance could boost the annual GDP of all emerging economies by \$3.7 trillion by 2025, a 6 percent increase vs. a business-as-usual scenario. We should note that although digital technologies help connect people to financial institutions, they do not guarantee improved credit—and that it is important that any increased access to credit does not result in unsustainable indebtedness. See *Digital finance for all: Powering inclusive growth in emerging economies*, McKinsey Global Institute, September 2016.

²¹ *Digital China: Powering the economy to global competitiveness*, McKinsey Global Institute, December 2017.

²² McKinsey survey of Indonesian e-commerce merchants, 2017. N = 700.

²³ *Global flows in a digital age: How trade, finance, people, and data connect the world economy*, McKinsey Global Institute, April 2014.

²⁴ Robert Jensen and Emily Oster, “The power of TV: Cable television and women’s status in India”, *Quarterly Journal of Economics*, volume 124, issue 3, August 2009.

²⁵ *Accelerating affordable smartphone ownership in emerging markets*, GSMA, July 2017. Unconnected women are those who do not own a mobile phone but may borrow one. See *Bridging the gender gap: Mobile access and usage in low- and middle-income countries*, GSMA, 2015.

²⁶ *More jobs. Great workplaces: Annual report 2015–16*, Australian Government Department of Employment, 2016.

of ride-hailing services may significantly improve women's mobility, thus enabling greater economic, social, and civic participation and reducing the time they spend doing household chores. Almost one-quarter of women in one survey said ride-hailing increases their sense of independence; 9 percent of Indonesian women said that ride-hailing enables them to go out at night when they otherwise could not.²⁷

- **Activism:** Social movements and organisations mobilising the grassroots have historically been a powerful catalyst for change, from the suffragettes in the United Kingdom over a century ago to the current #MeToo movement. Indeed, social media and mobile internet devices have only amplified the reach and pace of social activism. Beyond global movements such as #MeToo, local activist campaigns have achieved significant change in Asia Pacific in recent years. Popular outrage over the brutal rape and murder of an Indian girl in 2012 spurred legal reforms regarding sexual offences, for instance.²⁸ In Bangladesh, the mobilisation of self-help groups has helped to improve the economic situation of many poor people, including women.²⁹

To ensure Asia Pacific's continued progress towards gender parity, the virtuous cycle needs to be working well, powered by continued economic development. In addition, we see positive catalytic forces through government measures, market forces, new technologies, and activism playing a significant role in shaping gender outcomes. Government action, in particular, will be necessary both to accelerate progress and to achieve measurable change in globally consistent areas of inequality such as female leadership representation, which have proven persistent irrespective of economic development.

ASIA PACIFIC COUNTRIES HAVE MADE PROGRESS ON GENDER EQUALITY IN RECENT YEARS, BUT THERE IS STILL A LONG WAY TO GO

The past decade has seen many advances in addressing gender inequality in society in Asia Pacific. South Asia and Southeast Asia in particular have achieved significant improvements in health and education outcomes, which are generally correlated with economic development. However, the picture on indicators of gender equality in work is more mixed, particularly on women's participation in the labour force, on which some countries have advanced but others have regressed (Exhibit 8).³⁰

In the sphere of women's health, maternal mortality, measured as maternal deaths per 100,000 live births, has dropped across the board. In 2016, Nepal was the lowest-performing country in the region on this indicator, and over the past ten years it achieved the largest fall in maternal mortality—a drop of 186 deaths per 100,000 live births, or 42 percent. Other countries registering large improvements were Cambodia (minus 154), Bangladesh (minus 143), and India (minus 106). All countries in Asia have some way to go on tackling unmet need for family planning. China, the best-performing country in the region, stands out for its progress on this front. The proportion of women with unmet family planning needs has dropped consistently over the past decade—by 12 percentage points in Cambodia, five percentage points in Pakistan, and four percentage points in Bangladesh and the Philippines. Cambodia and Vietnam have regressed on sex ratio at birth, which may reflect increased availability of early diagnosis of foetal sex and abortion services.³¹

²⁷ *Driving toward equality: Women, ride-hailing, and the sharing economy*, International Finance Corporation, Accenture, and Uber, 2018.

²⁸ The Criminal Law (Amendment) Act, 2013, Government of India.

²⁹ M. Mahmudul Hasan and Mizan Rahman, "Self-help groups in Bangladesh", *Review of Enterprise and Management Studies*, volume 2, number 1, 2015.

³⁰ Trend figures are for ten-year changes, but the exact period measured may vary slightly by country and indicator, depending on data availability.

³¹ *Gender equality and women's empowerment in Asia and the Pacific: Perspectives of governments on 20 years of implementation of the Beijing Declaration and platform for action*, UNESCAP, 2015.

Exhibit 8

There has been significant progress towards gender equality in Asia Pacific over the past although not on labour-force participation

Progress on gender equality ■ Negative ■ Positive

	Country	Per capita GDP Annualised absolute change ¹ , %	Labour- force parti- cipation rate Change in F/M ratio ²	Maternal mortality Change per 100,000 births ²	Adult literacy rate Change in F/M ratio ²	Net secondary enrolment Change in F/M ratio ²	Gross tertiary enrolment Change in F/M ratio ²
Oceania	Australia	3.6	0.03	-1			0.15
	New Zealand	4.1	0.05	-3		-0.13	
East Asia	China	16.4	-0.02	-21			0.24
	Japan	2.5	0.04	-2			0.04
	South Korea	3.8	0.01	-3			0.10
Southeast Asia	Indonesia	7.8	0.02	-86	0.03		0.22
	Philippines	7.2	0.03	-13		-0.01	0.05
	Vietnam	9.0	0	-7			0.04
	Thailand	5.3	-0.01	-6	0.01		0.33
	Myanmar	14.6	-0.01	-70		0.05	
	Malaysia	5.7	0.06	-12			0.25
	Cambodia	8.9	0	-154		0.38	0.36
	Singapore	4.6	0.05	-6			
South Asia	India	10.9	-0.08	-106	0.10		0.27
	Pakistan	3.7	0.05	-71	0.03	0.02	0.03
	Bangladesh	9.2	-0.03	-143		0.06	0.22
	Nepal	5.6	0.01	-186		0.21	0.51
	Sri Lanka	9.2	-0.07	-13	0.02		

1 Total GDP percentage change divided by ten years.

2 Change in indicator is defined as the value in the latest year subtracted by the value ten years ago. Note that measures are not comparable across indicators, since units and timeframes vary.

NOTE: Within each subregion, countries have been ordered according to their 2016 female population. No data are available for the countries where no values are shown.

SOURCE: McKinsey Global Institute analysis

Indicators related to women's education have improved significantly over the past decade. The female-to-male adult literacy ratio has risen markedly in South Asia—by 0.10 in India, 0.03 in Indonesia and Pakistan, and 0.02 in Sri Lanka, according to UNESCO. The female-to-male ratio in net secondary enrolment rates has risen significantly in several countries, including Cambodia (0.38) and Nepal (0.21). Finally, the female-to-male ratio of gross tertiary enrolment has increased in almost every country in Asia Pacific. The largest rise was in Nepal at 0.51, followed by Cambodia (0.36), India (0.27), Malaysia (0.25), and China (0.24). Gender equality in educational attainment has a moderate or strong correlation with three out of five work equality indicators and several indicators of gender equality in society. For instance, women who enjoy parity in education are more likely to share unpaid work with men more equitably, to work in professional and technical occupations, to assume leadership roles, and to have higher status in the family, reducing the prevalence of child marriage and violence against women. Higher education and skills training can help raise women's labour participation.³²

While these improvements in health and education outcomes are closely correlated with economic development, progress can also be attributed to positive measures by governments and NGOs. For example, the Cambodia Health Equity Fund launched a voucher programme in 2007 to provide poor pregnant women with access to free pre- and postnatal care and delivery, while the government implemented a nationwide scheme to incentivise healthcare workers for live births in hospitals and healthcare centres.³³

The female-to-male labour-force participation ratio has increased in some developed economies, climbing 0.05 in New Zealand and Singapore, 0.04 in Japan, 0.03 in Australia, and 0.01 in South Korea. Government measures have facilitated some of these improvements. For instance, Singapore extended its parental leave scheme in 2013 to allow sharing of leave by working fathers, and Australia mandated 18 weeks of paid parental leave in 2011. In contrast, several South Asia countries have registered declines on this indicator, with the ratio falling by 0.08 in India, 0.07 in Sri Lanka, and 0.03 in Bangladesh. These changes in developing economies may be associated with an improvement in per capita GDP, as lower-income women are no longer forced into the workforce, and younger women are staying in school longer and joining the workforce later.

Many countries in the region have experienced increases in women's political representation. This may reflect the introduction of gender quotas in government and public service, which have boosted women's political participation. In India, which has a 33 percent quota for female representation in local government, many states have attained 50 percent representation.

³² *The power of parity: How advancing women's equality can add \$12 trillion a year to global growth*, McKinsey Global Institute, September 2015.

³³ Andrew D. Mason et al., *Toward gender equality in East Asia and the Pacific: A companion to the World Development Report*, World Bank, 2012.

Box 3. Gender inequality in seven Asia Pacific countries

Australia. Australia's best-in-region annual GDP opportunity by 2025 is \$225 billion, or 12 percent above business-as-usual GDP. Australia has advanced further than the Asia Pacific average towards gender equality in work and on all three elements of gender equality in society. It scores higher than the regional average on almost all of the 15 gender inequality indicators. It is near best in region on female-to-male ratio in professional and technical jobs, maternal mortality, and child marriage, and is best in region on educational level and financial and digital inclusion. Nevertheless, as in the rest of the region, inequality on political representation is still a major issue. Progress has stagnated in recent years on key indicators such as female labour-force participation, gender wage gaps, and women's political representation. Increasing female labour-force participation is crucial to delivering the GDP opportunity. Achieving this—especially for Australian mothers—will require action on three fronts: improving marginal financial incentives to work, spreading best practices in workplace policies, and shifting attitudes about gender roles.

China. In a best-in-region scenario, China could add \$2.6 trillion—or 13 percent above business as usual—to annual GDP by 2025. China's position on gender equality in work is above the average of Asia Pacific, with a relatively high female-to-male labour-force participation ratio and share of women in professional and technical jobs. China is best in region on unmet need for family planning and is near best in region on female-to-male ratio of educational attainment and on child marriage. However, China has some way to travel towards parity in leadership positions, unpaid care work, political representation, and sex ratio at birth, which is heavily skewed towards male children, a legacy of China's one-child policy. Overall, there has been no substantial advance in women's equality in recent years. China can build on its emerging strength in women's entrepreneurship in the e-commerce and technology sectors to continue to encourage more women into professional and technical fields and into leadership positions. It should also consider looking carefully at the high share of unpaid care work undertaken by women, a share that is likely to increase as the number of children rises—the fertility rate is expected to stop declining over the longer term—and the elderly population swells.

India. In a best-in-region scenario, India could add \$770 billion to annual GDP by 2025, or 18 percent above business as usual. India has a considerable way to travel to reach the Asia Pacific average on female-to-male labour-force participation rate, maternal mortality, financial and digital inclusion, sex ratio at birth, and violence against women. In education, by contrast, gender gaps are narrowing fast. India also has some significant opportunities, such as access to digital technologies—and, largely through their use, access to financial services and credit. In unpaid care work in the home—women do roughly ten times as much as men—India has made advances in rolling out household infrastructure that helps women. Building on this momentum and sharpening focus on how women can achieve greater economic empowerment are high potential priorities for India to consider.

Indonesia. Our analysis finds that Indonesia could add \$135 billion to annual GDP by 2025, or 9 percent above business as usual. Indonesia exceeds the Asia Pacific average on gender equality in work but lags significantly behind best in region in areas including labour-force participation and leadership positions. Indonesia's position on the three dimensions of gender equality in society is in line with the Asia Pacific average but, again, some distance from best in region. There are some bright spots. For instance, Indonesia is near best in region on education. Potential priorities for Indonesia to consider are unleashing the full potential of its existing strength in female entrepreneurship and boosting female labour-force participation by investing in household and transport infrastructure in order to reduce women's share of unpaid work.

Box 3. Gender inequality in seven Asia Pacific countries (continued)

Japan. Japan could add \$325 billion to annual GDP by 2025, or 6 percent above business as usual, in a best-in-region scenario. Japan's progress towards gender parity in work is below the Asia Pacific average and considerably lower than best in region. There is considerable scope to boost the female-to-male ratio of labour-force participation and other indicators of gender equality in work. As the economy ages and the workforce shrinks, tapping the economic potential of women by increasing women's representation in higher education, and subsequently in professional and technical jobs and company leadership positions, is vital. Transforming the work culture in Japanese organisations and shifting attitudes about gender roles will be essential. A particular area to address is the lack of women in leadership, which partly reflects underrepresentation of women in Japan's top universities. The government is leading from the front on addressing gender issues, introducing many potentially effective policies, but there is now an imperative to ensure that legislation and policies are implemented effectively to achieve more rapid change.

The Philippines. In a best-in-region scenario, the Philippines could add 7 percent to GDP above business as usual, or \$40 billion a year, by 2025. The Philippines is a traditionally matriarchal and egalitarian society whose government has proactively legislated to close gender gaps. Consequently, it is Asia Pacific's best performer on indicators of gender equality in work, such as participation in professional and technical jobs and women in leadership positions, and near best in region on perceived wage gap for similar work. On gender equality in society, the Philippines is in line with the regional average on essential services and enablers of economic opportunity and on physical security and autonomy, but is above average on legal protection and political voice. Looking at individual indicators, the Philippines is in line with best in region on education and financial inclusion, and near best in region on sex ratio at birth and child marriage. But there is scope for improvement. The experience of women in the Philippines still depends largely on their socioeconomic status. Lower-income women still confront considerable gender gaps and less opportunity. For educated women, there is scope for higher representation and equal pay in professional and technical fields—already a strength. Another priority is to increase women's access to finance.

Singapore. In a best-in-region scenario, Singapore could boost its GDP by \$20 billion a year, or 5 percent. It has achieved an above-average level of gender equality in work. The women's labour-force participation rate doubled from 28 percent in 1970 to 58 percent in 2016, reflecting a range of policies helping women to achieve work-life balance, including paid maternity leave, paid and unpaid childcare leave, increased tax relief, tax rebates, and childcare subsidies. Singapore's level of gender equality in essential services and enablers of economic opportunity and in legal protection and political voice is in line with the Asia Pacific average. It is best in region on physical security and autonomy. Singapore is at or near best in region on financial and digital inclusion and on education. The number of women with at least secondary education rose from 57 percent in 2011 to 71 percent in 2015. Singapore still has a significant gap to best in region on leadership positions and legal protection, and much to do to erase gender inequality in political representation. Two potential priorities are supporting women in balancing work and family life by shifting societal attitudes and providing family-friendly workplace programmes, and boosting the number of women working in higher-growth sectors and higher-paying roles by encouraging participation in STEM fields and addressing skills shortages.

FIVE PRIORITY AREAS COULD BE THE BACKBONE OF AN EFFECTIVE AGENDA FOR CHANGE IN ASIA PACIFIC

What should the road ahead look like as Asia Pacific countries move to capture the considerable economic and social opportunity from greater gender equality? Here we briefly summarise key areas that we believe could usefully form the backbone of an Asia Pacific agenda for change. Each of them applies across the region to differing degrees, and therefore merits being prioritised by policy makers, companies, and NGOs. Some aspects, namely female labour-market participation, are crucial for securing the potential economic benefits we have identified in most countries. Others, including the role that digital technologies can play, offer an opportunity to raise economic participation and earning while potentially improving gender equality in society. The imperative to shift societal attitudes towards women's role in society and work appears in virtually all countries and can enable—or hold back—progress on all other aspects of gender inequality. Measures described here are broadly relevant throughout the region, but they may not be equally applicable to all countries, and indeed to regions within countries. Some approaches are more suitable for the formal economy, others for the informal economy. Broadly, measures need to be tailored to the cultural and economic context of each country, based on decision makers' judgment—and experience—of what will be most effective. As examples of this tailoring, we have developed a menu of potential actions in seven countries (Exhibit 9).

Exhibit 9

Overview of potential measures to improve gender equality across Asia Pacific (1 of 6)

Measures are primarily:

- Government-driven
- Company-driven

Overarching priorities for action

- P Raise female participation in quality jobs
- L Lift female leadership representation
- DF Improve digital and financial inclusion
- A Shift attitudes on gender roles

P L DF A

Women in business leadership (all countries)				
Government				
Invest in skills training programmes for women in industries where they are underrepresented	●	●	●	●
Improve transport infrastructure to make commuting less burdensome and safer for women	●	●		
Use public spending to enable better and more affordable childcare, and rationalise taxes to remove disincentives for second earners	●	●		●
Implement workplace legal protections (e.g., antidiscrimination laws, protection from sexual harassment)		●		●
Set a publicly declared national agenda and target for women's representation in leadership	●	●		●
Work with companies in broad coalitions to share experience and foster a collective effort towards parity	●	●		●
Corporations				
Show top management commitment and accountability by, for instance, setting metrics and targets for gender equality supported by gender-based talent pipeline planning		●		●
Offer and encourage uptake of flexible working arrangements such as part-time positions and homeworking, supported by technology such as videoconferencing	●	●		●
Introduce inclusion programmes that, for instance, challenge conscious and unconscious bias in the talent management process, from recruitment to performance evaluation		●		●
Introduce formal and explicit sponsorship and mentorship programmes		●		●
Run leadership skills workshops and networking events to help women bolster aspirations and push for higher positions		●		●
Individuals (men and women)				
Actively pursue methods to reduce personal negative perceptions and unconscious biases		●		●
Participate in well-designed diversity and inclusion measures		●		●
Partnerships				
Create partnerships between governments to set goals, share best practices, and make gender parity a priority		●		●
Create partnerships between organisations and institutions (public, private, local, or foreign) to share gender data transparently and commit to initiating inclusion programmes		●		●
Australia				
Articulate case for change: macroeconomic, company, and individual				
Develop a clear macroeconomic and social case for policies promoting female participation	●	●		●
Communicate the individual and family benefits of workforce parity through awareness campaigns	●	●		●
Make a strong case for gender balance in the organisation, linked to purpose and business goals	●	●		●

SOURCE: McKinsey Global Institute analysis

Exhibit 9 (continued)

Overview of potential measures to improve gender equality across Asia Pacific (2 of 6)

Measures are primarily:

■ Government-driven

■ Company-driven

Overarching priorities for action

P Raise female participation in quality jobs

L Lift female leadership representation

DF Improve digital and financial inclusion

A Shift attitudes on gender roles

P L DF A

Australia (continued)				
Ensure economic incentives exist for all mothers to work				
Ensure long-term budgetary support for more universal childcare	●	●		
Adjust means testing for childcare-related benefits to retain incentives for middle-class women to work	●	●		
Increase equal provision, and uptake and acceptance of, flexible policies and life-transition support for women				
Encourage equal uptake of leave by making it more financially attractive, flexible, and understood	●	●		●
Increase support for women through life transitions, including services and networks	●	●		●
Foster acceptance of flexibility (for both genders) through role models and positive communication	●	●		
Invest in shifting attitudes about the role of women in society and work				
Launch public-awareness campaigns on the economic and societal benefits of women being free to pursue careers and of parents sharing childcare	●	●		●
Normalise male child-rearing through role modelling by key influencers	●	●		●
Further strengthen existing institutions and policy action focused on gender				
Expand participation in coalitions (e.g., Male Champions of Change) across sectors and geographies	●	●		
Increase policy impact through gender budgeting and gender-impact analysis	●	●		
Consider strengthening national mandates for employers and encourage greater gathering and use of data to shape practices	●	●		
China				
Increase opportunities for women to reduce time spent on unpaid work				
Provide subsidised childcare from birth to age five (pre-school)	●	●		
Improve auditing and enforcement of childcare regulatory standards to ensure quality care	●	●		
Mandate minimum nationwide paternity leave and encourage uptake by male workers	●	●		●
Increase focus on and accelerate provision of elderly care to respond to aging population	●	●		
Mandate minimum nationwide elderly-care leave for male and female employees	●	●		
Encourage and implement family-friendly work practices such as remote and flexible working, and permanent part-time roles that enable parents to accommodate their care requirements	●	●		●
Invest in shifting attitudes about the role of women in society and work				
Launch public-awareness campaigns on the economic and societal benefits of women being free to pursue careers and of parents sharing unpaid care work	●	●		●
Encourage male and female leaders (“champions”) to role model and advocate for change	●	●		●
Mandate public reporting of data on women in employment and leadership in state-owned and other companies		●		●
Raise minimum female representation in legislatures and be transparent about progress in provinces		●		●

SOURCE: McKinsey Global Institute analysis

Exhibit 9 (continued)

Overview of potential measures to improve gender equality across Asia Pacific (3 of 6)

Measures are primarily:

■ Government-driven

■ Company-driven

Overarching priorities for action

P Raise female participation in quality jobs

L Lift female leadership representation

DF Improve digital and financial inclusion

A Shift attitudes on gender roles

P L DF A

China (continued)	
Encourage and enforce equal treatment of women in the workplace	
Remove barriers to women continuing to work past the age of 50 and 55 (in blue-collar and white-collar work, respectively), and align with male retirement age of 60	● ●
Encourage equal treatment at work and strengthen enforcement of regulation by, for instance, reducing male-only advertised roles, addressing unequal pay between men and women, and prohibiting questions on intention to become a parent in interviews	● ● ●
Develop women's entrepreneurial and digital skills and networks, particularly in rural areas	
Create partnerships with the private sector to provide training and networking events for women, particularly in the e-commerce and technology sectors	● ●
India	
Make a concerted effort to expand job opportunities for women	
Stimulate job creation and skills training in sectors where women are established, including textiles, garments, healthcare, beauty, IT-enabled services, tourism, electronics assembly, and manufacturing	● ●
Enhance commitment to, and policies for, gender balance in the corporate sector among employees and in supply chains	● ● ●
Accelerate digital and financial inclusion of women and link with economic empowerment	
Accelerate roll-out of digital literacy initiatives and innovative financial products for female entrepreneurs	● ●
Expand business training and connectivity to markets for individual women, collectives, and producer companies through digital platforms targeting female entrepreneurs	● ●
Continue to expand access to infrastructure to reduce unpaid care work	
Sustain the roll-out of household infrastructure and services (e.g., water, sanitation, and clean cooking fuel)	●
Increase utilisation through supply and demand levers (e.g., quality, cost, education, and awareness)	● ●
Increase accessibility and uptake of childcare	
Increase investment in and scale up existing initiatives (e.g., national flagship scheme, mobile crèches)	● ●
Strengthen and enforce national standards on childcare quality, including more training for carers	● ●
Invest in high-quality employer-provided childcare and share best practices	● ●
Invest in shifting attitudes about the role of women in society and work	
Intensify public-awareness campaigns to communicate the value of girls and women in society	●
Put the spotlight on gender data, with a new focus on women in the workforce, across states, sectors, and organisations	●
Engage community leaders and individuals on women's digital and financial empowerment	● ●
Educate individuals on the value of childcare (e.g., children's cognitive, emotional, and health outcomes)	● ● ●

SOURCE: McKinsey Global Institute analysis

Exhibit 9 (continued)

Overview of potential measures to improve gender equality across Asia Pacific (4 of 6)

Measures are primarily:

■ Government-driven

■ Company-driven

Overarching priorities for action

P Raise female participation in quality jobs

L Lift female leadership representation

DF Improve digital and financial inclusion

A Shift attitudes on gender roles

P L DF A

Indonesia				
Continue to expand access to infrastructure to reduce unpaid care work				
Build a robust economic case for increased investment in infrastructure, with a gender-budgeting lens	●			
Work with NGOs and foundations to develop infrastructure and services in remote areas	●			
Introduce innovative products and services to help women reduce time spent on household chores	●			
Drive digital access, skills development, and business training for female entrepreneurs				
Increase instruction in digital skills in the early years of secondary school	●		●	
Scale up digital skills-building programmes for female entrepreneurs	●		●	
Improve tailoring of digital platforms, products, services, and marketing to women's needs	●		●	
Invest in shifting attitudes about the role of women in society and work				
Encourage community learning on how to manage a career in addition to family	●	●		●
Educate and activate networks of male champions	●	●		●
Run public-awareness campaigns to encourage recognition and redistribution of unpaid care work	●	●		●
Legislate and enforce greater protection for women				
Pass workforce laws to enforce part-time options, grant more paternity leave, and tackle sexual harassment	●	●		●
Strengthen enforcement of gender protections (e.g., training, measurement, and accessibility of courts)	●	●		●
Promote diversity policies in business organisations				
Make a strong case for gender balance in the organisation, linked to purpose and business goals	●	●		●
Offer and encourage uptake of flexible working arrangements (e.g., part-time and home-based assignments)	●	●		●
Set diversity targets and boost acceptance by men and women of diversity goals and programmes	●	●		●
Train and equip women as entrepreneurs in supply chains and distribution channels	●	●	●	
Japan				
Accelerate implementation of specific existing recommendations and policies				
Accelerate policy change and public services to match market needs (e.g., expanding public provision of childcare, more flexible labour contracts, and tax and social disincentives for second-income earners)	●	●		
Use organisational change best practices to accelerate implementation (e.g., top management commitment and linking diversity to business objectives)	●	●		
Increase cross-institutional collaboration to foster gender equality				
Create national and local coalitions of public and private institutions to facilitate sharing of best practices, broaden advocacy, and collaborate on societal issues	●	●		●

SOURCE: McKinsey Global Institute analysis

Exhibit 9 (continued)

Overview of potential measures to improve gender equality across Asia Pacific (5 of 6)

Measures are primarily:

■ Government-driven

■ Company-driven

Overarching priorities for action

P Raise female participation in quality jobs

L Lift female leadership representation

DF Improve digital and financial inclusion

A Shift attitudes on gender roles

P L DF A

Japan (continued)				
Invest in shifting attitudes about the role of women in society and work				
Run campaigns to celebrate top-performing women professionals and those at top universities	●	●		●
Facilitate networks, mentorship, and sponsorship of women from high school through the talent pipeline	●	●		●
Increase corporate and public-sector efforts to cultivate female talent from the start of the talent pipeline				
Provide scholarships for women to attend Japan's top universities	●	●		
Expand search for female talent beyond the top ten universities and ensure that women are included in management development programmes	●	●		
Increase the number of women attending top universities				
Legislate to promote women's representation in top universities (e.g., requiring targets and action plans)	●	●		
Provide safe and affordable housing for female students in top universities outside their home prefecture	●	●		
Review plans to change National Center Test and entrance conditions for applicants to non-STEM majors, to remove gender bias	●	●		
Create a coalition of top universities to develop understanding of gender issues and address them by, for instance, surveying, analysing, and sharing data	●	●		
Increase focus on improving female performance in STEM at high school				
Review STEM outcomes at the high school level and create action plan to improve female participation, scores, and motivation in mathematics and science	●	●		
Philippines				
Increase access and equal provision of family-friendly policies in the workplace				
Mandate gender-equal provision of parental leave	●	●		●
Increase flexible work options and part-time options for all workers	●	●		●
Increase access to employer-assisted or employer-provided childcare options	●	●		
Introduce policies and programmes to improve gender balance in male-dominated industries				
Revise elementary school curricula to remove gender biases	●			●
Develop mentorship programmes to encourage women to pursue careers in male-dominated industries	●	●		
Strengthen economic incentives for women to remain in the workplace				
Improve on equal remuneration clause for men and women	●			
Audit employee pay to identify gender wage gaps in similar roles	●			
Reduce barriers to labour-force participation for young mothers and single parents				
Improve childcare support for single parents and young mothers	●			
Provide employment and education support programmes for young mothers	●			

SOURCE: McKinsey Global Institute analysis

Exhibit 9 (continued)

Overview of potential measures to improve gender equality across Asia Pacific (6 of 6)

Measures are primarily:

■ Government-driven

■ Company-driven

Overarching priorities for action

P Raise female participation in quality jobs

L Lift female leadership representation

DF Improve digital and financial inclusion

A Shift attitudes on gender roles

P L DF A

Philippines (continued)	
Use financial products and services to increase economic empowerment for less-educated women	
Scale up existing measures targeting unbanked areas to expand women's financial inclusion	P DF
Provide adjacent services to improve financial access for women farmers and microentrepreneurs	P DF
Accelerate implementation of programmes to improve maternal health in rural and isolated areas	
Improve access to maternal healthcare and information for women in rural areas	P
Engage local government units in tracking health outcomes of expectant mothers	P
Singapore	
Invest in shifting attitudes about the role of women in society and work	
Run public-awareness campaigns to foster recognition and redistribution of unpaid care work	P L DF
Create forums of corporate leaders to share best practices on moving closer to gender equality	P L DF
Increase access and equal provision of family-friendly policies in the workplace	
Increase availability of flexitime and teleworking options for full-time workers	P L DF
Develop programmes to ease the transition for mothers returning to the workplace	P L
Expand leave options to include family sick leave and elderly-care leave	P
Make parental leave policies more gender-balanced	P L DF
Increase economic incentives for women to remain in the workforce	
Audit employee pay to identify gender wage gaps between similar roles	P
Create an equal remuneration clause for men and women	P
Encourage higher representation in STEM fields	
Develop programmes to inspire girls and young women to pursue STEM careers	P
Review university policies to encourage women to participate in STEM fields	P
Adjust policies to reduce barriers to women interested in applying for jobs in STEM	P
Promote skills development for women working in lower-growth sectors and/or lower-paying roles	
Create incentives to participate in SkillsFuture for women in need of reskilling or skills development	P
Help provide digital access to women who do not use mobile phones or the internet	P DF

SOURCE: McKinsey Global Institute analysis

1. Focus on higher female labour-force participation in quality jobs with steps to address unpaid care work as a priority to boost economic growth

Improving female labour-force participation represents 58 percent of the total GDP opportunity in Asia Pacific that we estimate is available. Enabling women to juggle their home and work responsibilities—an issue in advanced and developing economies alike—would help women who choose to work for pay outside the home to do so. The emphasis of such efforts should be to open the way for women not only to work, but to work in quality jobs. Today, women are underrepresented in many Asia Pacific countries in higher-paying professional and technical jobs, particularly in high-growth science, technology, engineering, and mathematics (STEM) jobs.

Women undertake four times the unpaid care work as men on average—and this hinders their freedom to choose to work for pay outside the home. In some countries, shifting demographics risk exacerbating this issue. In China, for instance, the time spent by women looking after their children and elderly relatives may even rise in the years ahead as fertility rates bounce back because of the shift from a one-child to a two-child policy, and as the population ages rapidly. Many women get deep satisfaction from caring for their children and aging relatives, and the time they choose to spend may reflect personal choice. But true equality of opportunity and freedom of choice still eludes many women who would be able to earn more money outside the home if household responsibilities were recognised, reduced, or redistributed.³⁴

A lack of childcare clearly deters many women from participating more fully in the labour market. The scarcity of quality, affordable childcare in major Indian cities has been cited as a barrier to women participating in the workforce. Even in Australia, an advanced economy, many women struggle to balance childcare with paid work because of a lack of affordable childcare. Net childcare costs were 20 percent of average family income in 2015, compared with the 12 percent average in OECD economies. Even if provision of childcare is sufficient and affordable, uptake will be limited unless women's incentive to work in terms of salary and tax rate is set at the right level. Many countries have recognised the importance of addressing this issue and have responded with a combination of public subsidies and mandates on employer provision.³⁵

There are other ways to reduce the time that women spend on unpaid work. Improved transport infrastructure and services such as ride-hailing can reduce the time it takes to shop or visit a doctor. There is every prospect that digital technologies will enable widespread use of remote healthcare via mobile phone and internet, saving women a great deal of time.³⁶ Other types of “household infrastructure” can also reduce time pressure on those working in the home. Today, many households lack water supply, necessitating considerable time collecting water. Unpaid care work can also be shared more equally between men and women in the household, facilitated by policies to promote paternity leave and flexible work models for male as well as female workers. Family leave policies that include men have the potential to provide better recognition for care work and to redistribute it among men and women, thereby potentially helping women to participate more actively in the world of work: however, steps are needed to encourage men to take up these offers.

³⁴ Gaëlle Ferrant, Luca Maria Pesando and Keiko Nowacka, *Unpaid care work: The missing link in the analysis of gender gaps in labour outcomes*, OECD Development Centre, December 2014.

³⁵ For example, Australia provides government subsidies to help cover childcare costs, while India's Maternity Benefit Act requires companies with 50 or more employees to provide crèche facilities.

³⁶ In China, a combination of healthcare big data, treatment powered by artificial intelligence, and Internet of Things-enabled services can create a more efficient, higher-quality system that puts the patient at its centre. See the discussion in *Digital China: Powering the economy to global competitiveness*, McKinsey Global Institute, December 2017. For more on the use of digital technologies in healthcare, see, for instance, *India's technology opportunity: Transforming work, empowering people*, McKinsey Global Institute, December 2014, and *What's now and next in analytics, AI, and automation*, McKinsey Global Institute briefing note, May 2017.

Unpaid care work can also be “marketised” to external providers, creating jobs in the care services industry.

A number of initiatives are being pursued in the region to give women a more solid platform for higher-quality careers. In response to reluctance among girls in Singapore to pursue STEM careers, non-profit 21C has started to provide free coding classes for girls.³⁷ In Japan, where women are markedly underrepresented at the top universities that are the source of a large share of the country’s business and political leaders, the institutions are taking some new approaches. For instance, Nagoya University has established a centre for gender equality and instituted female-only positions to open up opportunities to women academics.

2. Address the pressing regional and global issue of women’s underrepresentation in business leadership positions

A lack of women in top management positions—an issue in advanced and developing economies around the world—not only stunts the ability of women to have fulfilling careers and earn higher incomes, but negatively affects companies’ bottom lines. McKinsey’s latest research on the impact of diversity in business shows that companies in the top quartile for gender diversity on their executive teams are 21 percent more likely than other firms to report above-average profitability; the figure three years earlier was 15 percent.³⁸ We note that correlation does not prove causation, but we would argue that the correlation at least indicates that companies with gender-diverse leadership are more successful.

The global GPS on this metric, which includes women in leadership positions in both business and politics, is 0.37, indicating extreme gender inequality—there are fewer than four women for every ten men in leadership positions. The average GPS on women in leadership in Asia Pacific is only 0.25: women hold only one in four positions at the manager level and above. Asia Pacific has made some progress in recent years. Across the region, the share of women sitting on company boards doubled between 2011 and 2016 from 6 to 13 percent, but that is still a very low share.

Most countries have similar barriers to women rising to leadership roles in business. They include cultural expectations that women should prioritise childcare over their careers, a lack of suitable or affordable childcare, unconscious bias in the workplace, a lack of role models and sponsors, and, perhaps critically, a failure by many companies to offer flexible working options. The fact that the barriers are similar suggests that measures that have proved successful in raising the share of women in leadership in individual companies could be the template for businesses in the region.

Governments, companies, and NGOs all have a role to play in tackling this issue. Policy makers have the power to influence the talent pipeline through education and training systems, legislation, fiscal measures, and political leadership. They can also improve diversity in public services in their capacity as employers and can encourage gender diversity in companies in their supply chains through their procurement practices. Companies need to embed gender diversity into their operations from top to bottom, with clear managerial commitment to equality in the workplace, processes to back up that standard, the provision of flexible working to ensure that employees can achieve work-life balance, and programmes that explicitly provide mentorship, skills building, and networking for women. NGOs can provide similar programmes. It is vital that men play a central role in efforts to promote gender equality. In the home, if they undertake a greater share of family responsibilities, women will be freer to work for pay if they so choose. In work, men are still

³⁷ Lakshmi Ramachandran, *Small steps to big changes towards gender equality in science*, National University of Singapore, May 2017.

³⁸ *Delivering through diversity*, McKinsey & Company, January 2018; *Women Matter: An Asian perspective: Harnessing female talent to raise corporate performance*, McKinsey & Company, 2012; and *Women Matter: Time to accelerate: Ten years of insights into gender diversity*, McKinsey & Company, October 2017.

often in positions of authority and therefore have control over decisions to promote women, offer them flexible work practices, and provide them with mentoring and sponsorship.

3. Capture the economic and social benefits of improving women's access to digital technology

Globally, a digital divide separates rich and poor but also men and women. Most countries have some distance to travel to open up access to digital technologies for women. Yet access to and use of digital technologies is a powerful enabler of economic advancement for both individuals and entire economies, and it can have a positive impact on a number of aspects of gender inequality. On digital inclusion of women, Asia Pacific has a GPS of 0.77, somewhat behind the global average of 0.85. GSMA has estimated that there are 1.1 billion unconnected women in low- and middle-income countries in the region.

Access to technology can open many economic doors to women. For instance, digital businesses can enable female entrepreneurs by reducing many of the barriers they face offline. The rise of e-commerce and the online “gig economy” offer many women flexibility in terms of their working hours and where they work, helping them to balance work with their family commitments.³⁹ There is widespread evidence that digital technologies connect women with larger markets far more effectively than if they are offline. In Indonesia, for instance, women-owned MSMEs generate 35 percent of e-commerce revenue, compared with only 15 percent of offline MSME revenue.⁴⁰ Digital technology-based startups also tend to require less capital than more traditional startups, reducing entry barriers for women who, on average, have less access to capital than men.⁴¹ In a 2015 report, Alibaba stated that starting a Tmall store typically costs 210,000 renminbi, 96 percent less than setting up an offline business.⁴²

Digital banking levels the playing field between men and women in terms of access to financial services, and it enables financial institutions to serve more customers profitably. MGI research has found that mobile payments can lower the cost of providing financial services by 80 to 90 percent, enabling providers to serve people with lower incomes in rural areas. Overall, digital finance has the potential to provide access to financial services for 1.6 billion people in emerging economies, more than half of them women. Today, an estimated 57 percent of women are financially excluded in South Asia, 54 percent in China, and 49 percent in Southeast Asia.⁴³

Digital technologies can also encourage higher labour-force participation by women. They can, for instance, reduce the hours women spend on unpaid work. For example, if women have access to digital payments, they can save an enormous amount of time spent travelling to a physical bank or ATM and waiting in queues. MGI has estimated that Indians (men and women) lose more than \$2 billion a year in income because of travel time to and from a bank.⁴⁴ The adoption by many businesses of telecommuting also makes it easier for women to remain in the workforce if they so choose.

Finally, the internet offers the potential for women to make their voices heard. The #MeToo movement against sexual harassment that erupted on social media in late 2017 and early 2018 is just one example. One study found that half of the women surveyed in developing countries said that the internet had made it safer for them to express their views.⁴⁵ Yet

³⁹ *Independent work: Choice, necessity, and the gig economy*, McKinsey Global Institute, October 2016.

⁴⁰ McKinsey survey of Indonesian e-commerce merchants, 2017. N = 700.

⁴¹ David Halabisky, *5 ways policy could close the gender gap in entrepreneurship*, World Economic Forum, October 19, 2017.

⁴² *Women in the era of Internet Plus*, AliResearch, 2015.

⁴³ *Digital finance for all: Powering inclusive growth in emerging economies*, McKinsey Global Institute, September 2016.

⁴⁴ *Ibid.*

⁴⁵ *Women's rights online: Translating access into empowerment*, World Wide Web Foundation, October 2015.

powerful attitudes and beliefs inhibit women and girls from accessing the internet. In India, for instance, male relatives reportedly prohibit girls from using the internet.⁴⁶ Many digitally excluded people may need help to overcome digital literacy and numeracy issues. In an initiative from Tata Trust and Google India, for instance, women ride a bicycle carrying two smartphones and two tablets around villages to teach women how to use them.⁴⁷ It may not always be possible for the digitally excluded to take advantage of these technologies without assistance given that many will continue to have literacy and numeracy issues. Therefore, there is a case for providing digital access through intermediaries. Again in India, in late 2016, the government set up Common Service Centres in a public-private partnership with local entrepreneurs. Entrepreneurs run these kiosks, where people can go online, and the government allows them to be used for e-government services and applying for jobs.⁴⁸

We acknowledge that digital technologies are a double-edged sword. If the gender gap in digital inclusion and capabilities is not closed, there is a risk that women will be left out of the wave of change rolling through societies and economies driven by the rapid penetration of these technologies. Digital technologies can accelerate progress towards parity for women who are digitally included but leave those who are not even further behind.

4. Shift attitudes about women's role in society and work, in order to underpin progress on all aspects of gender inequality

In essence, progress towards gender parity in Asia Pacific and around the world relies on women and men having equality of opportunity and the freedom to choose how they balance the different parts of their lives: home and work, children and career. But even today in many countries, societal attitudes hold women back. Shifting those attitudes—a complex and long-term effort—can unlock progress on many aspects of gender inequality.

Defeating gender biases is critical to achieving equality in the workplace, where Asia Pacific countries generally exhibit an extremely high level of inequality. Attitudes regarding women's role as family caregivers are key reasons that women undertake a disproportionate amount of unpaid care work, choose to step out of the workforce, and face conscious and unconscious discrimination in the workplace. This holds true even in relatively advanced economies—in Australia, for instance, one in two women reported experiencing discrimination related to pregnancy or parental leave.⁴⁹ Selecting and equipping male champions to lead cultural change within organisations can be an effective way to address the attitudes underlying this bias. For example, the Australian Male Champions of Change group of CEOs and public-sector leaders recently committed to eliminating “everyday sexism” in workplaces through role modelling, tone setting, and training.⁵⁰

Shifting attitudes is also an important part of improving women's political representation, which is currently an area of extremely high inequality in most countries in Asia Pacific. The average female-to-male ratio of elected leaders is only 0.19. In countries in the region, an average of 44 percent (not weighted for population) of World Values Survey respondents agreed that men make better political leaders than women. Even when countries attempt to increase female representation, women are judged more harshly than men. For example, in India, a study of women-led villages showed that levels of dissatisfaction among

⁴⁶ Feminist Approach to Technology (<http://www.fat-net.org/>). Restrictions are even more common in terms of limiting (rather than prohibiting) use. More than half of men in one survey in New Delhi agreed that men have the responsibility to restrict what women access on the internet, and 65 percent agreed that women should be restricted from using the internet in public places on their own. See *Women's rights online*, World Wide Web Foundation (<https://webfoundation.org/our-work/projects/womens-rights-online/>).

⁴⁷ “Google, Tata Trusts to expand Internet Saathi programme”, *The Hindu Business Line*, December 5, 2017.

⁴⁸ Anandita Jumde, *How Common Service Centres are revolutionising e-governance in rural India*, The Better India, May 31, 2016.

⁴⁹ *Supporting working parents: Pregnancy and return to work national review—report*, Australian Human Rights Commission, 2014.

⁵⁰ *We set the tone: Eliminating everyday sexism*, Male Champions of Change, October 2017.

constituents were higher where council representatives were women, despite the fact that outcomes on some key services were, on average, better.⁵¹ Part of tackling this problem is increasing the visibility of female candidates, their track records, and the importance of women's representation in government. One example of this approach is the global #makeithappen campaign, which involved female parliamentarians raising awareness of these issues.

A change in attitudes is also crucial to solving the pervasive global issue of violence against women, a widespread problem that does not diminish even as countries develop economically. Campaigns can be effective. The Indian government's Beti Bachao Beti Padhao social campaign has raised public awareness of girl-child welfare in an effort to combat "son bias" and a skewed sex ratio at birth. Hollaback, an international initiative, targets women's attitudes. It asks women to share their stories of harassment so that other women don't feel alone and may be more empowered to report the problem to authorities. In countries including China and India, changing attitudes is an important part of addressing sex-selective abortion and child marriage. Humanising the issue to prompt discussions can be effective. For example, the Meena cartoon series, a television programme supported by UNICEF and shown in South Asian languages, presents a South Asian girl character, tailored to resonate with the audience's background, who faces a range of discriminatory obstacles.

Governments, companies, the media, and individuals in every community can help to change attitudes towards women by using cutting-edge and innovative approaches. Leading from the front, the Victoria state government in Australia has invited international behavioural insights experts to design strategies to address the societal attitudes and biases that drive gender inequality.

5. Collaborate on regional solutions as powerful catalysts for gender equality

Programmes and policies will largely be developed in each country with an eye to its particular context, pockets of high inequality, areas of strength, and cultural norms. But pan-Asia Pacific policies could give national efforts a powerful following wind, enabling change. Two forms of pan-Asian intervention could prove particularly effective, and regional and global bodies might consider exploring their feasibility:

- **Improve financing mechanisms to address gender outcomes:** Improving the financing of initiatives designed to tackle gender equality could improve outcomes. One approach is gender-lens investing—encouraging retail and institutional investors to direct funding to gender-diverse or women-owned businesses or to companies that advance gender equality through their product and service offerings.⁵² There is renewed momentum behind corporate social responsibility and ethical investing. For instance, BlackRock recently urged CEOs to ensure that their companies make a positive contribution to society.⁵³ Changes in investor behaviour can be facilitated by regional or global rating or accreditation systems for companies that improve gender outcomes, such as Bloomberg's Gender-Equality Index. Further work can be done to continue improving the sophistication and the uptake of such indices. Another approach to explore is social financing through, for instance, development impact bonds that attract private funding to support organisations or initiatives pursuing gender outcomes. Since the Banking on Women bond issued by the International Finance Corporation in 2013, many similar bonds have been developed. One example is the Women's Livelihood bond, which is estimated to have impacted 385,000 women in Cambodia, the

⁵¹ Ray Fisman, "It takes a village ... to fail to thank its female leader, no matter how good she is", Slate, November 27, 2007.

⁵² BNY Mellon and the UN Foundation explored this issue in a joint report: *Return on equality: Investment opportunities to help close the global gender gap*, January 2017.

⁵³ Larry Fink, *Larry Fink's annual letter to CEOs: A sense of purpose*, BlackRock, January 2018.

Philippines, and Vietnam. In this case, the bond was partially guaranteed by USAID and Australia's Department of Foreign Affairs and Trade.⁵⁴

- **Explore greater regional collaboration on knowledge-sharing:** Given the wide variation in gender equality outcomes in Asia Pacific, it is vital that best practices already in place, as well as cutting-edge ideas, be widely shared. Asia Pacific institutions could consider creating a unified regional learning or knowledge agenda on gender issues, backed by regular, practitioner-level forums in a “network of networks”. Such collaboration may work most effectively within the framework of existing regional institutions such as APEC, whose Women and the Economy Dashboard seeks to measure and share progress in the region and its constituent countries. Regional and international organisations could also collaborate more with one another and with governments to build a comprehensive and up-to-date fact base of gender data to enable more effective design and implementation of gender initiatives. There may also be potential for strategic cooperation, including in procurement, to reduce operating costs and free up funds for investment in gender initiatives.⁵⁵



Asia Pacific is home to some of the fastest-growing and increasingly innovative economies in the world. The region is forging an exciting new future and an ever-greater role on the world stage. Yet women are not yet playing an equal part—a gap in the narrative that many leaders now recognise. The economic dividend from advancing women's equality is significant in every country of the region. We know that diverse workforces are good for the bottom line, and that educated, healthy, fulfilled women with the freedom to choose both a family life and a career are good for growth. Now is the time to step up efforts to accelerate progress towards gender parity—and harness its power for growth and the wellbeing of society.

⁵⁴ *USAID supporting Women's Livelihood Bond to benefit 385,000 women in Southeast Asia*, USAID press release, August 7, 2017.

⁵⁵ An analogous example is the Joint Procurement Agreement between 24 EU countries to ensure more equitable access to vaccines, antivirals, and other medical countermeasures.



1. OPPORTUNITIES FOR WOMEN IN BUSINESS LEADERSHIP

The relative lack of women leaders—both in business and in politics—is a marked source of gender inequality around the world. In Asia Pacific, the number of women in top jobs in both spheres is even lower than the global average. Large gender gaps on women’s leadership are evident in all countries despite some progress in recent years. This is a waste of talent that the region can ill afford, especially when many economies are aging, labour pools are eroding, and skills shortages are on the rise.⁵⁶

In this chapter, we look at the issue of leadership positions throughout Asia Pacific with a specific focus on the business talent pipeline from education to board-level positions. We examine the root causes of bottlenecks that prevent women from becoming leaders, and offer thoughts on measures that could be taken and adapted to each country’s context. We base our findings on attitudes revealed in proprietary surveys and more than 20 interviews with female leaders across the region.

DESPITE RECENT PROGRESS, WOMEN STILL LAG SIGNIFICANTLY BEHIND MEN IN LEADERSHIP POSITIONS IN BUSINESS AND POLITICS

Women’s relatively low representation in leadership positions—measured using the female-to-male ratio—is a global issue. Worldwide, slightly fewer than four women hold leadership positions to every ten men in business and politics.⁵⁷ In Asia Pacific, there is only one women in leadership positions for every four men. In some countries in East Asia, there are only 12 to 20 women leaders for every 100 men (Exhibit 10).

Most countries in the region have female-to-male ratios of less than 0.5. Even in Australia, New Zealand, and Singapore, three of the region’s more advanced economies, the gender imbalance is notable. The Philippines, a traditionally matriarchal society whose government has been proactive in narrowing gender gaps, is the country in the world nearest to gender parity. However, even there, only 15 percent of board members are women, signalling that there is some way to go before parity.⁵⁸ The standing of women in the Philippines still depends heavily on their income level. Many women in upper income brackets are almost equal to men in terms of education, and this opens up similar opportunities to companies. However, for many women with lower incomes, such opportunities are not nearly as widely available.

⁵⁶ Globally, there will be an estimated shortage of about 40 million graduates. See *The world at work: Jobs, pay, and skills for 3.5 billion people*, McKinsey Global Institute, June 2012.

⁵⁷ We use International Standard Classification of Occupations (ISCO-08) of ILO system definitions under major group 1 (managers) and submajor group 11 (chief executives, senior officials, and legislators).

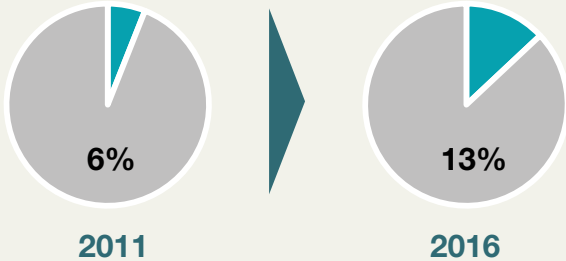
⁵⁸ J. Benjamin C. Alvarez and Patricia M. Alvarez, “The Filipino family-owned business: A matriarchal model”, *Philippine Studies*, volume 20, number 4, fourth quarter 1972.

Female business leaders

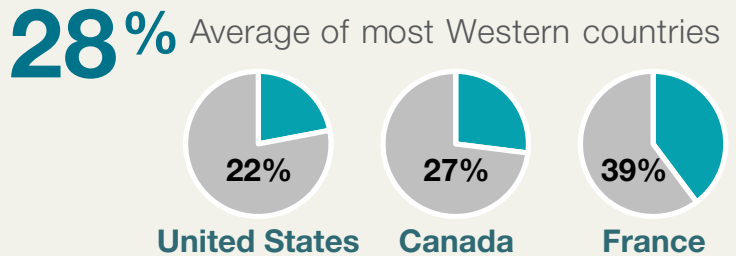


Women's representation in leadership has improved, but there is still a gender gap

Women's representation in boards has improved in Asia Pacific . . .



. . . but is still lower than Western counterparts (2016 estimates)



There are bottlenecks throughout the talent pipeline in each country

Percentage of women¹

	Tertiary educated graduates	Entry-level professionals ²	Senior management ³	Board members
Australia	56	44	21	18
China	53	51	11	10
India	43	25	4	11 ⁴
Indonesia	52	45	13	5
Japan	46	49	1	3
Philippines	53	43	33	15
Singapore	53	49	25	8



Progress with require comprehensive measures by both public and private stakeholders

Government

- Investment in training
- Improved transport infrastructure
- Legal protections in workplace
- Fiscal policies to balance work and home
- National target for women leaders
- Work with companies towards parity

Corporations

- Management commitment and accountability
- Flexible working arrangements
- Inclusion programmes across talent management process
- Sponsorship and mentorship
- Skills workshops and networking events

Individuals

- Participation in diversity interventions
- Self-help activities to reduce negative self-perceptions and unconscious bias

Partnerships

- Government partnerships to make gender parity a priority
- Partnerships between local institutions: public, private, local, and foreign

¹ Women as a percentage of the total men and women at the respective stage of the talent pipeline.

² Entry positions in jobs occupied by graduates.

³ Company management/executive committee (CEO and direct reports to CEO).

⁴ Increase in proportion due to legal mandate for one woman board member for all listed companies.

SOURCE: McKinsey Global Institute analysis

Exhibit 10

The share of women in leadership positions is low across Asia Pacific

	Country	Female population, 2016 Million	Leadership positions Female/male ratio ²	Level of gender inequality
Oceania	Australia	11.9	0.58	<div style="display: flex; flex-direction: column; gap: 5px;"> <div style="display: flex; align-items: center;"> Extremely high</div> <div style="display: flex; align-items: center;"> High</div> <div style="display: flex; align-items: center;"> Medium</div> <div style="display: flex; align-items: center;"> Low</div> </div>
	New Zealand	2.3	0.67	
East Asia	China	671.2	0.20	
	Japan	65.2	0.15	
	South Korea	24.9	0.12	
Southeast Asia	Indonesia	125.6	0.30	
	Philippines	50.0	0.96	
	Vietnam	46.8	0.35	
	Thailand	34.3	0.48	
	Myanmar	27.6	0.40	
	Malaysia	15.5	0.26	
	Cambodia	7.9	0.45	
	Singapore	2.8	0.52	
South Asia	India	612.2	No data	
	Pakistan	90.0	0.03	
	Bangladesh	78.4	0.13	
	Nepal	14.5	0.22	
	Sri Lanka	11.0	0.33	
Overall score	Asia Pacific average ¹		0.25	
	Global average ¹		0.37	

1 Weighted by 2016 female population.

2 Leadership positions defined as manager level and above in private- and public-sector organisations (e.g., includes legislators, chief executives, and middle managers).

SOURCE: McKinsey Global Institute analysis

WOMEN'S REPRESENTATION HAS IMPROVED—PARTICULARLY IN BUSINESS LEADERSHIP—BUT INEQUALITY REMAINS HIGH

The business case for companies in the region to increase the share of women in leadership roles is a strong one. Increasing women's representation throughout a company and in the top team is strongly correlated with value creation (see Box 4, "Gender diversity is linked to company performance").

Box 4. Gender diversity is linked to company performance

There is compelling evidence of a correlation between gender diversity in companies and their performance. McKinsey's latest research on the impact of diversity in business shows that companies in the top quartile for gender diversity on their executive teams are 21 percent more likely than other firms to report above-average profitability; the figure three years earlier was 15 percent.¹ McKinsey has also found that companies with three or more women on their executive committees scored higher on organisational health, on average, than companies with no women at this level.² We acknowledge that correlation does not prove causation: diversity does not automatically equal more profit, but companies that commit to diverse leadership have been more successful. Several factors could explain this:

- **Better decision making and innovation:** Gender-diverse top teams can offer more problem-solving tools and more effective solutions by bringing different perspectives.³ Inherent (gender and ethnicity) and acquired (from experience) diversity can help companies innovate and perform better than others.⁴
- **Stronger customer orientation:** Women are heavily represented among companies' customers. For instance, they tend to control household finances—in Indonesia, Japan, the Philippines, and Vietnam, in more than half of all households.⁵ By increasing gender diversity in their top teams, companies can better understand large numbers of customers.
- **Broader leadership styles:** Women and men tend to have different leadership styles, and incorporating both can help performance. Specifically, there is evidence that women apply five out of nine types of positive behaviour in business—people development, expectations and rewards, role models, inspiration, and participatory decision making—more often than men.⁶

We also acknowledge that the correlation may not be sufficient evidence to convince companies of the positive business effects of gender diversity. It is therefore important for companies to build their own business case based on their own situations. For example, Minerals Australia uses BHP data to show that more inclusive and diverse groups have higher performance in both safety and operations.⁷ Aurizon in Australia found that diversity and inclusion programmes can help reduce potential long-term costs associated with retention issues. The company reported that between March 2012 and 2013, turnover rates for female employees fell from 13 percent to 7.2 percent.⁸

¹ *Delivering through diversity*, McKinsey & Company, January 2018; *Women Matter: An Asian perspective: Harnessing female talent to raise corporate performance*, McKinsey & Company, 2012; and *Women Matter: Time to accelerate: Ten years of insights into gender diversity*, McKinsey & Company, October 2017.

² McKinsey's Organizational Health Index measures the performance and health of a company using nine criteria including quality of leadership team, ability to communicate a vision and clear direction, and the work environment.

³ Vivian Hunt, Dennis Layton, and Sara Prince, *Diversity matters*, McKinsey & Company, February 2015.

⁴ Sylvia Ann Hewlett, Melinda Marshall, and Laura Sherbin, "How diversity can drive innovation", *Harvard Business Review*, December 2013.

⁵ *Women in Asia's emerging markets take reins of household finances: MasterCard survey*, MasterCard press release, March 27, 2013.

⁶ *Women Matter: Time to accelerate: Ten years of insights into gender diversity*, McKinsey & Company, October 2017.

⁷ *Women in leadership: Lessons from Australian companies leading the way*, McKinsey & Company, Workplace Gender Equality Agency, and Business Council of Australia, November 2017.

⁸ *Case study: Gender diversity at Aurizon*, Aurizon (<https://www.aurizon.com.au/~/-/media/aurizon/files/sustainability/diversity/aurizon%20diversity%20case%20study.ashx>).

There has been progress in recent years. On average in the region, women's representation on boards increased from 6 percent in 2011 to 13 percent in 2016.⁵⁹ This appears partly to reflect regulations and corporate policies instituted during this period. For instance, India has made it mandatory for companies to have at least one female director, and the Australian Securities Exchange Corporate Governance Council tracks gender diversity in its constituent companies. On the specific issue of women's representation on boards, an upwards trend is apparent in every country of the region. In Australia and Indonesia, women's representation more than doubled, from 13 to 27 percent and from 6 to 14 percent, respectively. In Japan, the share tripled from 2 to 6 percent, but remains very low. All of these numbers are low compared with the average share in advanced economies of 28 percent.⁶⁰ Twenty-two percent of board members in the United States are female, 27 percent in Canada, and 39 percent in France.⁶¹

Women CEOs are even rarer than board members. In 2016, only 5 percent of CEOs in Singapore and 6 percent of CEOs in Australia were women.⁶² These are the countries that are closest to parity in the region.⁶³ In Indonesia and China, the share was only 2 percent, and in Japan zero. Even in the Philippines, just 3 percent of CEOs are female. Shares of women reporting directly to CEOs are somewhat higher, at 30 percent in the Philippines, 27 percent in Australia, and 21 percent in Singapore, but only 6 percent in India and 4 percent in Japan.

BOTTLENECKS FACING WOMEN IN THE TALENT PIPELINE FROM EDUCATION TO THE BOARDROOM VARY AMONG COUNTRIES AND SECTORS

The lower share of women in company leadership isn't all about the glass ceiling—the famous point at which women's careers appear to come to a halt. The relative lack of women in the top positions in business has its roots far earlier in the talent pipeline that runs from enrolment in tertiary education to entry-level positions, middle management, and the boardroom. In the seven countries we highlight in this research, the share of women erodes the further they are along this pipeline, with different patterns and bottlenecks among countries (Exhibit 11).

India and Japan have a relatively lower proportion of women enrolled in tertiary education at 44 percent and 47 percent of the total of men and women enrolled, respectively, which creates a smaller pool of female talent early in the pipeline. In some countries, there is a significant drop from the share of women who graduate from college to the share taking entry-level positions. The decline in share at this stage is greatest in three countries: India, where the share falls from 43 percent of tertiary-level graduates to only 25 percent of entry-level professionals; the Philippines, 53 to 43 percent; and Australia, 56 to 44 percent.⁶⁴

⁵⁹ This is the average of the seven countries featured in this report.

⁶⁰ This is the 2016 average of the estimated board representation of women based on G20 country samples (only Western countries). See *Women Matter: Time to accelerate: Ten years of insights into gender diversity*, McKinsey & Company, October 2017.

⁶¹ *Women Matter: Time to accelerate: Ten years of insights into gender diversity*, McKinsey & Company, October 2017.

⁶² These data are based on the top 100 public companies by market capitalisation. Australia's Workplace Gender Equality Agency reports that the share of female CEOs was 16.5 percent in 2017 based on 4,000-plus organisations. See *All industries summary for 2017*, WGEA Data Explorer (http://data.wgea.gov.au/industries/1#gender_comp_content).

⁶³ Data from annual report of top 100 public companies for each country by market capitalisation.

⁶⁴ The talent pipeline results from an analysis that combines information from multiple data sources. However, we acknowledge the difficulties of combining different data sets.

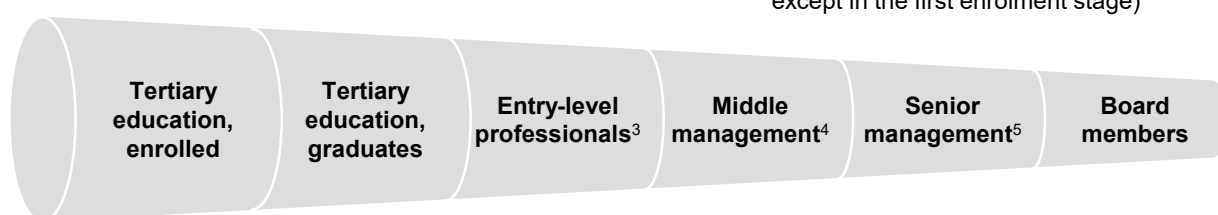
Exhibit 11

Bottlenecks in the talent pipeline vary among countries

ESTIMATES

Women drop out at all stages of the employment “funnel”¹
% women²

■ Potential major bottleneck in pipeline (~50% drop from previous stage of pipeline except in the first enrolment stage)



	Tertiary education, enrolled	Tertiary education, graduates	Entry-level professionals ³	Middle management ⁴	Senior management ⁵	Board members
Australia	57	56	44	36	21	18
China	52	53	51	22	11	10
India	44	43	25	16	4	11 ⁶
Indonesia	51	52	45	n/a	13	5
Japan	47	46	49	9	1	3
Philippines	55	53	43	n/a	33	15
Singapore	51	53	49	n/a	25	8

1 Does not include data on women entrepreneurs.

2 Women as a percentage of total men and women.

3 Entry positions in jobs occupied by graduates.

4 Managerial (midlevel) positions. Comparable middle-management data are not available for Southeast Asia.

5 Company management/executive committee (CEO and direct reports to CEO).

6 Increase in proportion due to legal mandate for one woman board member for all listed companies.

SOURCE: McKinsey proprietary database 2015; Women in Leadership Australia 2017; World Bank; published reports; McKinsey Global Institute analysis

The largest drops in share of women between the entry level and middle management are in Australia, China, and, most significantly, Japan, where a 49 percent share becomes only 9 percent. In all seven countries that we examined, the share of women then declines further between middle and senior management. The share dwindles further between senior management and board positions, with one exception. In India, the share of female senior managers is only 4 percent, but 11 percent of board members are women; however, we note that women’s board-level representation in India is relatively low compared with other countries in the region. The largest drops between senior management and the boardroom are in Indonesia, the Philippines, and Singapore.

The question is what causes the bottlenecks where women drop out of the business talent pipeline? We have drawn on the Asia results of a McKinsey survey carried out in 2015 across the world that revealed a number of barriers to women’s advancement into leadership roles; these barriers appear throughout Asia Pacific (Exhibit 12).

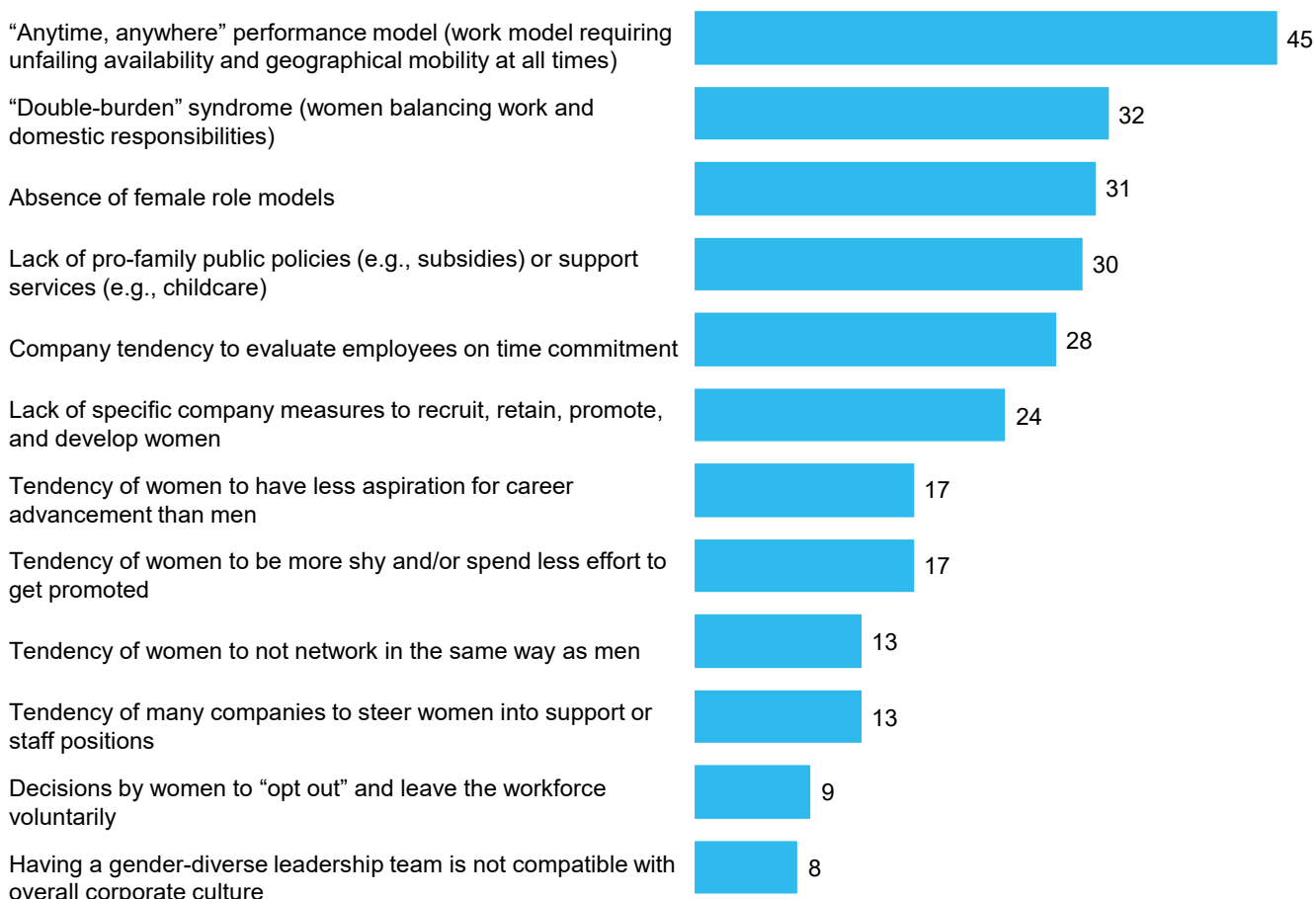
Exhibit 12

Top barriers perceived by women across Asia Pacific include insufficient flexibility in work, work-life balance, female role models, and childcare

Women’s views of barriers to improving gender diversity vary across Asia Pacific

% of respondents who selected the barrier (Asia Pacific average)

“In your opinion, which are the top three high-level barriers, if any, to increasing gender diversity within the top management of your organisation?”



SOURCE: McKinsey proprietary database—Women Matter survey 2015; McKinsey Global Institute analysis

The survey found that by far the largest barrier to women moving into senior roles cited by executives—45 percent—was the “anytime, anywhere” performance model. The second biggest—cited by 32 percent of respondents—was the “double burden” of women holding down a job while looking after their families, particularly in societies where women are still expected to take sole responsibility for family and household duties. Third was an absence of female role models, followed by a lack of pro-family public policies and support, including childcare; 30 percent of respondents cited the latter factor. Other barriers—all selected by more than 20 percent of respondents—were companies’ tendency to evaluate employees on the basis of time commitment (rather than performance and outcomes), and a lack of specific measures to recruit, retain, promote, and develop women. For some women, further barriers included their own tendency to have lower aspirations for their careers than men, being shyer than men, and spending less effort on winning promotion.⁶⁵

⁶⁵ This McKinsey survey covered some 700 senior managers in ten markets (the seven countries that we focus on in this report plus Malaysia, South Korea, and Thailand).

These barriers are present in most countries in Asia Pacific, with some variations. For example, respondents in India say the lack of specific company measures to recruit, retain, promote, and develop women is the most important barrier to increasing gender diversity in their organisations' top management. Among Japanese respondents, the anytime, anywhere performance model is cited as the top barrier, followed by companies' tendency to evaluate employees on their time commitment.

The double burden on women is perpetuated by a lack of workplace flexibility and the anytime, anywhere workplace culture

Evidence suggests that failure to normalise flexible work options has the strongest correlation with women dropping out of the talent pipeline, because this perpetuates and entrenches women's double burden. Across Asia Pacific, many interviews and the McKinsey Women Matter survey in 2015 reveal that it remains the norm for women to be the primary caregiver in the household, and that this is very often the main reason women opt out of the talent pipeline. In some parts of Indonesia, women who become mothers and stay at home to take care of children are prized more highly than those who have successful careers outside the home. The concept of *kodrat*, which is unique to Indonesia, encompasses the expectation that women will take care of domestic commitments before engaging in any other activities.⁶⁶

One Australian study highlighted ten key elements that companies need to address in order to increase women's representation.⁶⁷ They include making a case for change and role modelling a commitment to diversity. An important factor is flexible working. In Australia, financial services company Suncorp redesigned the operating model of its contact centre to enable flexible scheduling through "work at home hubs" that combine home workstations and working spaces in regional shopping centres, and the firm offers a range of positions that are based in the home. Also in Australia, mining company Rio Tinto has a flexible work policy offering the option to work part time and job share, and giving mothers the choice to work four-hour shifts supported by contractors to fill gaps.⁶⁸ In Indonesia, a huge, dispersed archipelago, women tend to stay close to home because of family responsibilities, and many women will turn down work if it means that they are relocated far from home.⁶⁹ In China, many women are thriving in the e-commerce and technology sectors because, by their nature, these fields allow flexible and remote work.

The Australian study found that the element most correlated with higher ratios of women in top roles was action to normalise flexible working. Providing ways to work flexibly is not, in itself, sufficient—uptake of these options should be encouraged so that they become normal practice. Women may be reluctant to take advantage of flexible working because of a perception that doing so may hurt their chances of promotion.⁷⁰ Companies taking steps to remedy this include Unilever, which has striven to make working flexibly acceptable. Among the practical steps that the company has taken are explicitly encouraging employees to work from home and urging managers to counter negative views of employees without children taking advantage of flexible options.

⁶⁶ Sari Andajani, Olivia Hadiwirawan, and Yasinta Astin Sokang, "Women's leadership in Indonesia: Current discussion, barriers, and existing stigma", *Indonesian Feminist Journal*, volume 4, number 1, March 2016.

⁶⁷ *Women in leadership: Lessons from Australian companies leading the way*, McKinsey & Company, Workplace Gender Equality Agency, and Business Council of Australia, November 2017.

⁶⁸ Jane Nelson et al., *A path to empowerment: The role of corporations in supporting women's economic progress*, Harvard Kennedy School and U.S. Chamber of Commerce, April 2015.

⁶⁹ Ilhaamie Abdul Ghani Azmia, Sharifah Hayaati Syed Ismailb, and Siti Arni Basir, "Women career advancement in public service: A study in Indonesia", *Procedia—Social and Behavioral Sciences*, volume 58, October 12, 2012.

⁷⁰ *The CPA Australia workplace flexibility survey 2016*, CPA Australia, 2016; and George Nott, *Is flexible working bad for your career?* CIO, May 30, 2017.

Motherhood—with its associated societal attitudes—is a major point at which women drop out of the talent pipeline

Throughout Asia Pacific, it is clear that many women leave the workforce when they become mothers, and many never return. Many women choose to care for their families full time. Others leave the workforce while their children are young but then find it hard to return. Others would like to go back to work but have difficulty securing affordable childcare. The attrition of women from the talent pipeline can start even before employees become mothers, as societal attitudes militate against women pursuing a career and instead prioritise looking after their families and households. We fully acknowledge that such attitudes are not always “imposed” on women—many women take the view that their primary role is as mothers and caregivers who run households.

In China, 53 percent of tertiary education graduates are women, and many of them move into entry-level positions—there is only a slight decline, to 51 percent, at this stage. But the share of women is less than half that at the middle-management level. One factor appears to relate to difficulties that accompany managing motherhood with a career. One 2017 survey found that 40 percent of women were reluctant to have children and 63 percent of women did not want a second child, citing concerns that becoming mothers (especially a second time) would compromise their ability to rise through the ranks in their company.⁷¹ Indeed, 63 percent of women said that having a child would have a significant impact on their career. In the same survey, 53 percent of women said that they were concerned about difficulties returning to work, and 49 percent said that they were worried that they would be replaced in their job by someone else. There appears to be a monetary disincentive, too. In the survey, 33 percent of respondents said that they had experienced a salary decline when they returned from having a child, and 36 percent returned to a lower position than the one they had left. Both figures were somewhat higher than in the same survey in 2016. Another survey also showed economic pressure as a top concern for women when having a second child.⁷² The UN Human Rights Council has highlighted discrimination against women in China when they become mothers.⁷³

India and Japan have a relatively lower proportion of women at the start of the pipeline (enrolled in tertiary education), with 44 and 47 percent, respectively. In India, 43 percent of graduates are women, but they hold only 25 percent of entry-level positions. In the World Values Survey, the proportion of respondents in India agreeing that “a university education is more important for a boy than for a girl” was 63 percent; the country with the next-highest share of respondents holding this view had 51 percent.⁷⁴ In the World Values Survey, 70 percent of Indian respondents agreed with the statement “When a mother works for pay, the children suffer”. The next-highest share in the region was 44 percent. We conducted a number of interviews to find out what factors are persuading so many women to stay at home. They include a lack of accessible childcare in the workplace, long commuting times resulting in too little time with their children, and finally a desire to help their children’s education by giving them hands-on tutoring.

In Japan, the pipeline starts with women making up 47 percent of students enrolled in tertiary education. However, the average share of female students in Japan’s top ten universities, including the University of Tokyo and Waseda University, was only 28 percent in 2017. This may limit the number of Japanese women rising to higher echelons in companies,

⁷¹ *Zhaopin report found China’s working women less keen on childbearing*, Zhaopin Limited, May 11, 2017.

⁷² *Lean In China: 2016 women, work and happiness white paper*, Lean In, November 2016 (<http://www.leaninchina.com.cn/col.jsp?id=141>).

⁷³ In 2014, the UN noted a “prevalence of discrimination on the grounds of maternity, with employers avoiding their obligation to pay maternity leave benefits by employing only women who already have children, not paying the statutory 98-day maternity leave, or dismissing women during pregnancy or when they are breastfeeding”. See *Report of the working group on the issue of discrimination against women in law and in practice on its mission to China (12–19 December 2013)*, UN General Assembly, June 2014.

⁷⁴ Data up to 2014 depending on the country.

given the correlation between attending top universities and holding leadership positions. Although 49 percent of entry-level positions are taken by women in Japan, there is a very sharp drop to only 9 percent in middle management, narrowing even further to only 1 percent in senior management. This erosion appears partly to reflect the fact that women do not want to become managers. A 2015 Intelligence HITO Research Institute survey found that 75 percent of female respondents said that they were not interested in managerial positions for two reasons: a lack of confidence in being leaders or a lack of role models, and the longer hours and more burdensome work that would come with promotion.⁷⁵ Japanese working hours are relatively long, perhaps explaining this reluctance. Men in Japan work 46 percent more hours than their US counterparts, OECD data show.

In the Philippines, the 33 percent share of female senior managers is more than twice the 15 percent share at the board level. This appears partly to reflect women's attitudes. In the many interviews we conducted, we heard Filipinas express the view that they had already done well to achieve a certain position and were satisfied not to advance further. This suggests that, even if attractive job opportunities are available, many women may choose to put their effort into the family instead. A far higher share of Filipinas view being a housewife as just as fulfilling as working for pay—80 percent in the World Values Survey, compared with 60 percent of their counterparts in most other countries in the region.

Childcare arrangements vary, but they represent a significant challenge for women's careers in virtually all countries in the region. In East Asia, Japanese women have difficulties finding childcare despite support from the government.⁷⁶ Even in Australia, childcare is a major issue because it is so expensive. Net childcare costs (the amount paid by two-earner families) were 20 percent of an average family's income in 2015, compared with the 13 percent average in OECD economies.⁷⁷ In such cases, in the short term it can make economic sense for the parent earning the lower wage—likely to be the woman—to leave the labour force to save money on formal childcare.

Other factors that vary by country contribute to lower representation of women along the pipeline

A number of factors act as barriers that keep women from climbing to leading positions in particular countries. For instance, China's statutory retirement age of 55 for women but 60 for men leaves less time for women to climb through the ranks. Severe mobility issues in Indonesia due to traffic congestion and a lack of efficient public transport pose a considerable challenge to women working while also looking after their families.⁷⁸

In Singapore, it is typical for companies to appoint candidates for promotion from within the social circles of board members—more of them men than women—rather than through formal processes.⁷⁹ If women do rise to senior positions, they are less likely to see fostering gender equality as their responsibility than women in other Asian countries: only 54 percent of women in Singapore believe this to be the case, compared with around 70 percent in Indonesia and Malaysia.⁸⁰ One survey of female executives also revealed that although 75 percent of respondents said it is important to give advice and training to other women, only 16 percent had actually done so. At the same time, 65 percent of respondents in the World Values Survey agreed that it causes problems if a woman earns more than her

⁷⁵ Ken Moriyasu, "75% of Japanese women not interested in management," *Nikkei Asian Review*, May 14, 2015.

⁷⁶ Tomohiro Osaki, "Day care crisis stuck in vicious cycle", *The Japan Times*, April 17, 2016.

⁷⁷ For two children aged two and three, and assuming a two-parent household both earning average Australian wages. See *Starting strong IV: Monitoring quality in early childhood education and care*, OECD, October 28, 2015.

⁷⁸ Kang Hang Leung, *Indonesia's summary transport assessment*, ADB Papers on Indonesia, number 15, Asian Development Bank, 2016.

⁷⁹ Chor Kheing Yuit, *Why aren't more women on Singapore company boards?* Channel New Asia, October 24, 2015.

⁸⁰ *Mind the gaps: Perceptions of gender equality in corporate Southeast Asia*, Economist Intelligence Unit, 2016.

husband, which may contribute to women’s leaving employment in the later stages of the pipeline. Finally, even if women make it to the board level, they are paid an average of 43 percent less than their male counterparts, which acts as a disincentive to push for the highest positions in companies.

WOMEN’S REPRESENTATION IN LEADERSHIP POSITIONS VARIES BY SECTOR

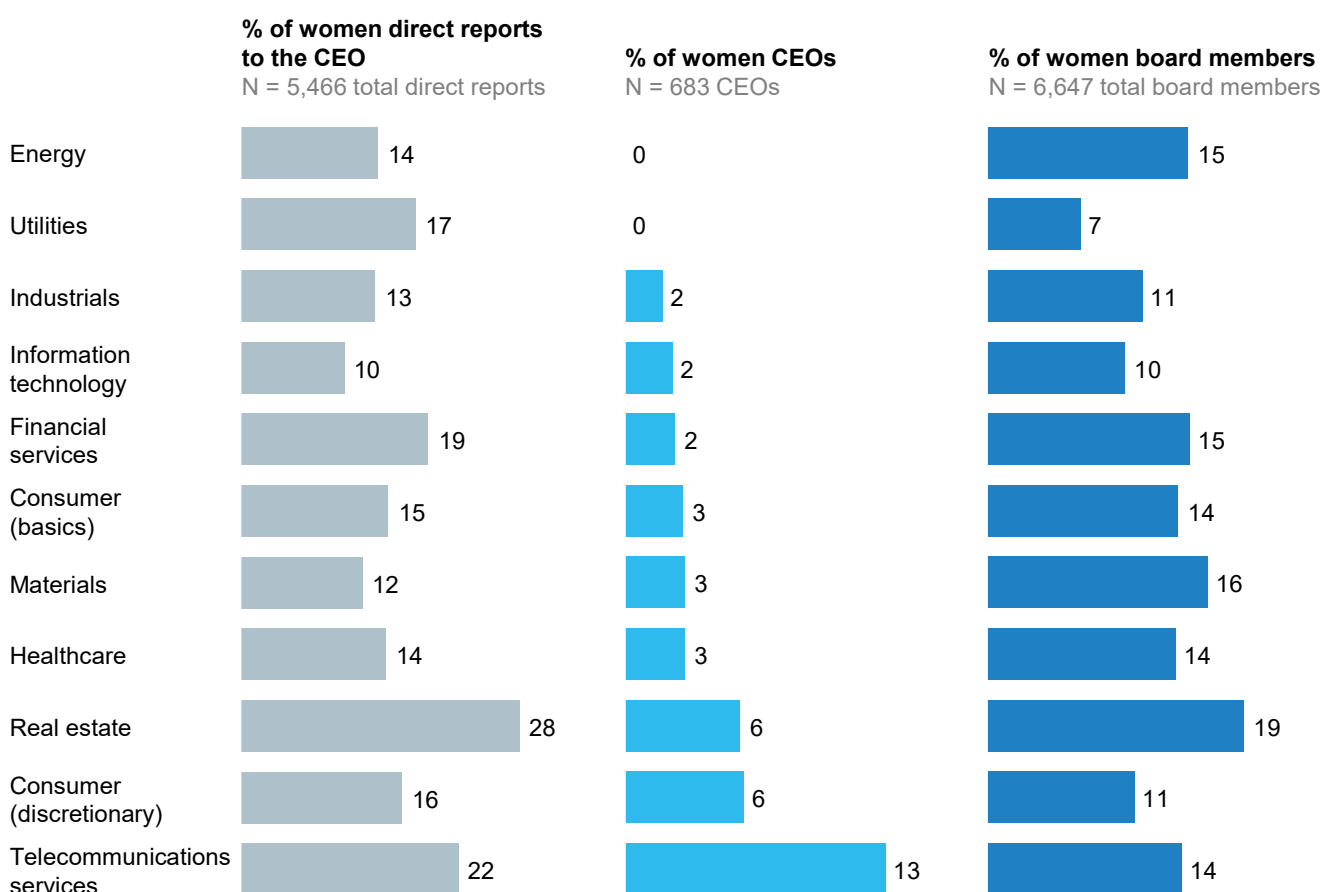
Looking at women in leadership at the sector level, we also find variation (Exhibit 13). The data show that women’s representation in leadership positions is markedly low in energy, finance, industrial sectors, information technology, and utilities. Telecommunications has a higher share of women CEOs, senior executives, and board members—across Asia Pacific, 13 percent of CEOs, 22 percent of executives reporting directly to CEOs, and 14 percent of board members are female. Real estate has the highest share of women direct reports, at 28 percent, and board members, at 19 percent. In energy and utilities, there are so few women CEOs that the share rounds to zero for the top 100 public companies in 2016 by market capitalisation in our seven focus countries.

Exhibit 13

Women’s representation in business in Asia Pacific varies by sector

Women’s representation by sector in Asia Pacific¹

Top 100 companies per country



¹ Data for focus countries only (Australia, China, India, Indonesia, Japan, Philippines, and Singapore). Figures here are based on the top 100 companies in each focus country and may differ from pipeline data in Exhibit 11 where sample sizes and time frames are different.

SOURCE: Annual reports; investor presentations; McKinsey Global Institute analysis

Global McKinsey research identifies three archetypes of industries where the attrition of women from the talent pipeline is similar. Patterns in Asia Pacific align with these archetypes. They are:

- “Low entry” industries where there is a small proportion of women even in entry-level positions; these industries include technology, information technology, automotive, energy, and basic materials.
- “Middle barrier” industries where there is a significant drop-off in the share of women in middle management compared with the entry level; these industries include healthcare, infrastructure, logistics, and travel and transport.
- “Glass ceiling” industries where the share of women in top leadership roles is low; these industries include financial services (asset management, banking, and insurance) and other professional services.

Different factors appear to be in play depending on the sector. In male-dominated industries such as construction and mining, women may be underrepresented because working conditions are not attractive to them.⁸¹ Some large companies in these sectors have acted to mitigate this situation. In mining, for instance, BHP announced that it aims for women to account for half of its workforce by 2025. This is against a 15 percent share in the Australian mining industry as a whole as of August 2017. A year after its announcement, BHP said that the share of women had increased by 2.9 percent, just shy of the company’s target of 3.0 percent, and that its female turnover rate had fallen from 8.4 percent higher than that of male employees in 2016 to 4.7 percent higher in 2017. The company put these advances down to a combination of recruiting based on skills as well as experience in the mining industry, flexible work options for employees based in offices and on-site, and encouraging suppliers to offer the same flexibility.⁸² In construction, Australia company Mirvac has made advances in normalising flexible work after introducing a programme called “My Simple Thing” in 2016. The company asks all employees to publicly declare a simple change that can improve their work lives, and they are then supported by their teams to make it happen. Examples of these simple changes are finishing work early one day a week to attend sports training, and starting the day late to drop off children at school. The uptake of flexible working arrangements increased to 76 percent of employees in 2017 from 44 percent in 2015.⁸³

Another industry where women’s representation is low, especially in managerial positions, is healthcare and pharmaceuticals. In Japan, pharmaceutical company Takeda launched a range of initiatives in 2016 to improve women’s inclusion, including an internal women’s network, a flexible programme that gives employees the choice of work times and location, and a drive to encourage faster promotion for employees who perform well early in their careers. As a result of these efforts, the company has hit its target of 30 percent of new managers being women, from only 6.2 percent in 2015.⁸⁴

⁸¹ Phiona Martin and Antoni Barnard, “The experience of women in male-dominated occupations: A constructivist grounded theory inquiry”, *SA Journal of Industrial Psychology*, volume 39, number 2, 2013.

⁸² *No silver bullet but great progress on gender balance*, BHP press release, September 18, 2017.

⁸³ Mirvac 2017 annual report.

⁸⁴ Chalya Freeman et al., *Footprints: Taking strides toward gender parity and sustainable diversity and inclusion*, Takeda Pharmaceuticals International (https://www.hbanet.org/sites/hba.cms.memberfuse.com/hba/files/docs/Corporate/Annual_Conference/Posters/P07-Freeman_et_al_Takeda.pdf).

In the technology sector, a shortage of women in STEM-related jobs may be due not only to lower enrolment in these subjects by girls, but also to early-career barriers. In academic research, for instance, short-term contracts lead to career instability. A 2014 report by the Science and Technology Committee in the House of Commons in the United Kingdom found that a lack of a permanent job when starting a family deters more women than men.⁸⁵ One survey of women in STEM fields found that more than nine out of ten respondents experienced in-group bias, and seven out of ten strongly agreed that unconscious bias had affected their opportunities to network.⁸⁶

Leading companies in the United States, including Airbnb, Asana, and Google, have all taken steps to increase women's representation (especially in engineering roles) and have started publicly publishing data in order to reinforce change. Pinterest reports that it boosted the share of women in technical roles from 21 to 26 percent in 2016; this was somewhat short of the company's 30 percent target for that year but considerably higher than the 16 percent average in the industry.⁸⁷

Perhaps one way to improve women's representation in leadership in technology industries is to involve women at the startup stage. In China, for example, women are relatively well represented at e-commerce giant Alibaba, where six out of 16 senior managers are female, a relatively high share of about 38 percent. Alibaba's founder Jack Ma has led from the front on this issue and has consistently been vocal about the importance of having women in leading positions; it is notable that one-third of the team that founded the company was female. The company makes a number of provisions for women at work, including express lanes and relaxation room for pregnant employees.⁸⁸ Ctrip, an online service provider in China, has a female CEO, chief operating officer, and chief financial officer, and has a nursery and breastfeeding rooms at its Shanghai headquarters. At Didi Chuxing, China's top ride-hailing company, women hold 37 percent of tech-related jobs, more than double the 15 percent at Uber worldwide. In 2017, Didi launched a women's network that aims to cultivate managers through tutoring from senior executives, rotation in different departments, and mentorship from business leaders in China and overseas.⁸⁹

With the importance of technology as a sector rising the world over, countries in Asia Pacific have a significant opportunity to boost women's entry into tech and achieve sustained growth in the share of women in leadership positions in business (see Box 5, "India should now consider how to build on advances in women's representation in STEM fields").

⁸⁵ *Women in scientific careers: Sixth report of session 2013–14*, House of Commons Science and Technology Committee, February 6, 2014.

⁸⁶ *Unconscious gender bias in the STEM professions*, Professionals Australia, 2015.

⁸⁷ *Oh, how Pinteresting! A 2016 update on diversity at Pinterest*, Pinterest, December 16, 2016; Sohan Marthy, *Women in software engineering: The sobering stats*, LinkedIn Talent blog, March 20, 2014; and Candice Morgan, "What we learned from improving diversity rates at Pinterest", *Harvard Business Review*, July 11, 2017.

⁸⁸ Kia Kokalitcheva, "Female executives are Alibaba's 'secret sauce,' founder Jack Ma says", *Fortune*, May 20, 2015; and Charles Clover, "Women of 2014: The women of Alibaba", *Financial Times*, December 12, 2014.

⁸⁹ *In China, Didi speeds far ahead of Uber in gender diversity*, Tech in Asia, March 31, 2017; *Didi launches Women's Network, introducing leadership programs for its 40 percent women workforce*, Didi Chuxing press release, March 29, 2017.

Box 5. India should now consider how to build on advances in women's representation in STEM fields

The iconic image of a group of smiling Indian women scientists celebrating the success of their project to launch Mangalyaan, the Mars space probe, is symbolic of a larger phenomenon: India has made impressive strides in raising the share of female graduates in STEM subjects and women in STEM careers. It can now build on this progress by ensuring that more women STEM graduates advance through the talent pipeline to the most senior positions in Indian companies. Many women in India have already reached the top at companies such as Intel, Capgemini, HP, Facebook, and IBM.

In 2012, India's share of women graduates from STEM courses was 42 percent, far higher than in many advanced economies, including the United States (35 percent), the United Kingdom (32 percent), and Norway (30 percent).¹ Shares vary by subject. For instance, about 50 percent of Indian graduates in sciences are women, but the figure is only about 30 percent in engineering and technology courses.² For purposes of comparison, in the United States the share of women science graduates was also about 50 percent, but the share of engineering and technology graduates only 20 percent in 2012.³

In Indian tech, women continue to be underrepresented, especially in engineering roles up to the C-suite. Only an estimated 26 percent of engineers in the tech industry are women. Of these, half move onto different roles, and only 7 percent reach top positions, after approximately 12 years. Men take six years plus to reach the managerial level; women take eight or more.⁴

In science fields, women account for only 25 to 30 percent of PhDs, and the share of female faculty members is only 15 to 20 percent.⁵ In high-profile institutions such as the Tata Institute of Fundamental Research and the Council of Scientific and Industrial Research, women account for between 14 and 30 percent of scientists, while at top educational institutions such as IISc Bangalore and Delhi University, women account for between 8 and 20 percent of professors.

Women in India appear to face barriers that are particular to STEM roles. In tech, for instance, a 2015 report found that 59 percent of women in STEM report a “testosterone-laced” culture, compared with 25 percent in the United States, and 57 percent a “late-night geek/hacking culture”, compared with 31 percent in the United States. Sixty-six percent of women responded that “a female at my company would never get a top position no matter how able or high-performing”.⁶

A report from NASSCOM, India's industry association for the information technology and business process management sector, published survey data showing that employee referrals and on-campus recruitment are more gender-balanced modes of recruitment than, for instance, online job portals.⁷ Policies relating to parenthood also play an important role in promoting gender diversity. The survey found that the cost of maternity leave was not the key issue, but rather the low rate of return to work and managing changing work patterns after returning. This suggests that targeted support for women when they become mothers is important to raise retention and enhance their career progression.

¹ UNESCO science report: *Towards 2030*, UNESCO, 2015; *All India survey on higher education (2012–2013)*, Government of India, Ministry of Human Resource Development, Department of Higher Education, 2015; and 2012 OECD data.

² *All India survey on higher education (2012–2013)*, Government of India, Ministry of Human Resource Development, Department of Higher Education, 2015.

³ *Dataset: Graduates by field of education*, OECD, 2012.

⁴ Mohita Nagpal, *Women in tech: There are 3 times more male engineers to females*, Belong Technologies India, August 31, 2017.

⁵ Rohini M. Godbole and Ramakrishna Ramaswamy, “Women scientists in India”, in *Women in science and technology in Asia*, The Association of Academies and Societies of Sciences in Asia, 2015.

⁶ *Women in STEM: How and why an inclusive strategy is critical to closing the science, technology, engineering, and maths talent gap in Europe*, Kelly Services, 2015.

⁷ Parvati Raghuram et al., *Women and IT scorecard—India: A survey of 55 firms*, NASSCOM and The Open University UK, spring 2017.

ALL STAKEHOLDERS NEED TO WORK TOGETHER TO DRIVE CHANGE

A comprehensive approach to the issue of women's leadership in business is needed, with all stakeholders—governments, companies, and NGOs—playing their parts to achieve change. Partnerships among stakeholders can be highly effective.

The approach of individuals counts, too. In order for the many initiatives that are possible to be effective, individuals must work on their own attitudes. In 2016, one study found that a simple writing exercise to affirm personal values and reduce negative self-perceptions narrowed the performance gap between men and women.⁹⁰ Another study in 2016 found that participating in well-designed measures such as diversity workshops has the potential to increase awareness, reduce subtle gender bias, and increase the propensity to take action to address diversity challenges.⁹¹

Men need to play their full part in changing the status quo to increase women's representation in work and their share of leadership positions. In the home, unless men take on a greater share of domestic responsibilities, many women will drop out of the labour force.⁹² At work, men continue to dominate leadership positions, and they therefore have the means to support women in their careers through promotions, mentoring, and sponsoring. A number of equality-promoting initiatives explicitly involve both men and women. One is the HeForShe movement, which provides a systematic approach and targeted platform where men and boys can engage and become change agents in favour of gender equality. Senior executives can lead by example. A well-known example is the announcement by Facebook CEO Mark Zuckerberg that he was taking two months of paternity leave. More male managers can serve as mentors to women, the focus of Lean In's #MentorHer movement.

Narrowing the leadership gender gap will take time and concerted effort, but we are already seeing examples of initiatives in the region that are steps in a positive direction. We now highlight some of these, focusing on governments and companies.

Government can use policy and legislation to influence women's representation at all stages of the talent pipeline

A number of government initiatives could set the stage for genuine advances in women's representation in leadership positions, and we mention several here (our list is by no means exhaustive):

- **Investment in skills training programmes for women in industries where they are underrepresented:** Governments can put in place initiatives targeted at women, including programmes that equip them with the skills they need to have successful careers in industries where they are underrepresented. In the Philippines, the Technical Education and Skills Development Authority's Women's Center offers vocational training to women to equip them for work in industrial sectors traditionally dominated by men. Courses include electrical installation and maintenance, motorcycle and small engine servicing, and plumbing. In its 2015 annual report, the authority said that it had achieved a 60.3 percent employment rate six months after completion of its training courses.

⁹⁰ Zoe Kinias and Jessica Sim, "Facilitating women's success in business: Interrupting the process of stereotype threat through affirmation of personal values", *Journal of Applied Psychology*, volume 101, number 11, November 2016.

⁹¹ The study took the form of a "scientific diversity" workshop that took deliberate design choices to systematically increase its effectiveness, such as trained facilitators, using empirical evidence rather than intuition, and a rigorous evaluation to assess the efficacy of the intervention. See Corinne A. Moss-Racusin et al., "A 'scientific diversity' intervention to reduce gender bias in a sample of life scientists", *CBE—Life Sciences Education*, volume 15, number 3, September 2016.

⁹² *The role of men and boys in promoting gender equality*, Women 2000 and beyond, United Nations, December 2008.

- **Improve transport infrastructure to make commuting less burdensome and safer for women:** Governments can improve public infrastructure to make work less burdensome for women. Finding ways to shorten commuting times and making travel safer for women can reduce one particular type of challenge they face. In India and Indonesia, whose cities suffer from traffic congestion, bus rapid transit projects have had some success.⁹³ Expanded and higher-quality household infrastructure can reduce the amount of time women spend on chores in the home.
- **Use public spending to enable better and more affordable childcare, and rationalise taxes to remove disincentives to second earners:** Government can use public spending and the tax system to incentivise measures to help women better balance their home and work responsibilities. In Japan, for instance, the government approved a ¥2 trillion (\$17 billion) package in 2017 to finance free education and childcare services, with the aim of increasing capacity to 320,000 children and eliminating waiting lists for daycare centres. Faced with a shortage of workers, Japanese companies are also taking action to provide more daycare facilities, taking advantage of government subsidies that can cover as much as 75 percent of the cost of starting a nursery and up to 80 percent of its operational expenses. By early 2017, 500 companies had received subsidies to open 600 childcare centres providing places for 14,000 children.⁹⁴ The Japanese government is also seeking to revisit a spousal tax deduction that encourages limited earnings by the spouse of the main breadwinner.⁹⁵ In Australia, the government has provided funding so that four-year-olds can have 15 hours per week of kindergarten.⁹⁶
- **Implement workplace legal protections (for example, antidiscrimination laws, protection from sexual harassment):** Antidiscrimination laws are vital to ensure that companies take a gender-neutral approach to recruitment and working practices.⁹⁷ China has a range of laws that theoretically offer women comprehensive legal protection, but in practice gender discrimination is still widespread in Chinese companies.⁹⁸ In the Philippines, the government requires mass media to abide by gender equality principles and encourages the media to disseminate positive messages about women leaders, raising the profile of female role models.⁹⁹ The Philippine Commission on Women implements such regulations.¹⁰⁰ Legislation can also prohibit gender pay gaps by, for instance, protecting the identity of those who share compensation information. The law can also protect women who report sexual harassment in the workplace.

⁹³ Nadja Kogdenko, *Successfulness of bus rapid transit systems in Asia: Ex-post evaluation*, Energy Research Center of the Netherlands, February 2011.

⁹⁴ Yoshiaki Nohara, *Worker shortage drives Japanese companies into child care*, Bloomberg, February 27, 2017; and Yoshiaki Nohara, *Firms tap state subsidies to start day care facilities to woo working moms*, Bloomberg, March 2, 2017.

⁹⁵ If the spouse earns less than ¥1.03 million a year, the family is eligible to claim a tax deduction. Japan's ruling Liberal Democratic Party is seeking to increase the cap to ¥1.50 million to encourage more women to work.

⁹⁶ Miranda Stewart, ed., *Tax, social policy and gender: Rethinking equality and efficiency*, Australian National University Press, 2017.

⁹⁷ In Iceland, a mandatory pay equality certification system took effect in January 2018 that makes it illegal to pay men more than women.

⁹⁸ Sadie Yang and Ao Li, "Legal protection against gender discrimination in the workplace in China", *Gender and Development*, volume 17, number 2, July 2009.

⁹⁹ Andrew D. Mason et al., *Toward gender equality in East Asia and the Pacific: A companion to the World Development Report*, World Bank, 2012.

¹⁰⁰ *Towards a gender fair media*, Philippine Commission on Women, 2013.

- **Set a publicly declared national agenda and target for women’s representation in leadership:** Governments can establish a national agenda for pursuing the goal of gender equality and set targets for organisations to support more women in leadership positions. In Japan, Prime Minister Shinzō Abe set a target for of filling 30 percent (later revised to 15 percent) of leadership positions with women by 2020. In Singapore, the Diversity Action Committee has targets of 20 percent female representation on boards by 2020, 25 percent by 2525, and 30 percent by 2030. The committee’s six-step plan includes educating companies on the benefits of diversity, implementing diversity disclosure requirements, and encouraging investors to promote diversity on company boards.
- **Work with companies in broad coalitions to share experience and foster a collective effort towards parity:** Governments can work with companies to advocate for women’s equality in work. In Germany, for instance, Chancellor Angela Merkel backed the *Chefsache* initiative in which leaders from industry, science, the public sector, and the media explore ways of promoting gender balance in top management. In the United Kingdom, the WISE campaign manages a portfolio of initiatives aimed at increasing female representation in STEM. This campaign has helped to increase the UK female STEM workforce, which grew by 15 percent from 2014 to 2015.¹⁰¹ The Philippine Commission on Women supports a local initiative called local learning hubs. The government of Davao City established community child-minding centres in 1998, and by 2012, these centres had been rolled out to *barangays*—smaller local units in the city—to enable parents to work.¹⁰²

Companies in Asia Pacific can implement a range of initiatives that have been effective in other regions in advancing women’s careers

Companies can promote gender diversity and equality in the workplace in many ways, a topic that McKinsey & Company has explored for a decade through its Women Matter initiative.¹⁰³ Here we focus on just a few concepts that companies in Asia Pacific could consider that have proved effective around the world:

- **Show top management commitment and accountability by, for instance, setting metrics and targets for gender equality supported by gender-based talent pipeline planning:** From the very top, companies need to make a clear business case for gender equality that is tailored for their organisation, and be visible in their support for initiatives that promote pro-gender-equality practices. Companies should then consider planning for a gender-based talent pipeline supported by setting transparent diversity targets, putting in place tracking of these targets, and holding executives accountable for meeting them. Some companies tie compensation to meeting targets through a scorecard system, while others opt for peer-to-peer accountability (voluntary commitments coupled with regular review). As we have noted, the Australia Securities Exchange’s Corporate Governance Council has tracked diversity targets since 2010; while there has been some progress, constituent companies of the ASX200 need to continue the effort to reach 30 percent female representation in board positions by 2018.¹⁰⁴ Also in Australia, BHP made a strong case for change by using its own company

¹⁰¹ *Annual report April 2015–March 2016*, The Wise Campaign, 2016.

¹⁰² *Gender and development local learning hubs: Davao City*, Philippines Commission on Women (<http://www.pcw.gov.ph/sites/default/files/documents/studies/Davao%20GAD%20LLH%20Write%20up.pdf>).

¹⁰³ McKinsey research on gender equality can be found at <https://www.mckinsey.com/global-themes/gender-equality>.

¹⁰⁴ The ASX corporate governance council gives a recommendation for listed entities to set measurable objectives for achieving gender diversity, disclose policies and objectives, and monitor progress.

data to show that “more diverse and inclusive groups have higher performance both on safety and operational performance”.¹⁰⁵

- **Offer and encourage uptake of flexible working arrangements such as part-time schedules and homeworking, supported by technology such as videoconferencing:** Flexible working arrangements such as part-time or homeworking options supported by technology such as videoconferencing have proved effective in retaining women in companies even after they become mothers. In India, pharmaceutical company Dr. Reddy’s has a range of initiatives, including Comeback Careers for Women, which offers full-time roles for women returning after a career break; six to seven months of paid maternity leave; and an hour off every day to care for a baby for up to a year. In 2017, Japanese cosmetics company Shiseido announced a new collaboration with childcare-services company JP-Holdings to set up and operate in-house nurseries.
- **Introduce inclusion programmes that, for instance, challenge conscious and unconscious bias in the talent management process, from recruitment to performance evaluation:** Companies can have programmes for inclusion that challenge conscious and unconscious bias and long-established ways of working. In Australia, Kmart’s Diversity Walk initiative uses role-play to help leaders understand how their decisions affect women, and Microsoft rolled out a programme called “dialogue across the differences” in which actors present different scenarios to illuminate unconscious bias. Some companies have put in place formal criteria and processes for recruiting and performance evaluations to help take gender bias out of them. Overall, it would be useful for companies to recognise the need to build a truly inclusive organisational culture and then create a portfolio of initiatives that will deliver on it.¹⁰⁶
- **Introduce formal and explicit sponsorship and mentoring programmes:** Sponsors actively use their influence to help women advance in their careers, while mentors typically provide advice and coaching.¹⁰⁷ Evidence suggests that sponsorship programmes have a significant impact on women’s success in the workplace. Citibank, which has a presence across Asia Pacific, launched Women Leading Citi in 2009. It pairs senior women with executive sponsors to act as their advocates and increase their visibility. As of 2015, 173 women around the world had participated.¹⁰⁸ The Dell Women in IT Executive Mentoring programme has been running in Australia since 2005. The government of Australia has partnered with Dell on this initiative since its inception and had become a channel for 120 government protégés as of 2015.¹⁰⁹ However, the fear of sexual harassment can sometimes deter women from taking part in mentorship programmes (see Box 6, “Sexual harassment can be a barrier to women’s advancement”).¹¹⁰

¹⁰⁵ *Women in leadership: Lessons from Australian companies leading the way*, McKinsey & Company, Workplace Gender Equality Agency, and Business Council of Australia, November 2017.

¹⁰⁶ *Delivering through diversity*, McKinsey & Company, January 2018.

¹⁰⁷ *Sponsorship/mentoring*, Catalyst (<http://www.catalyst.org/knowledge/topics/sponsorshipmentoring>).

¹⁰⁸ “Diversity”, in 2015 *Citi global citizenship report*, Citigroup, 2016 (<http://www.citigroup.com/citi/about/citizenship/download/2015/global/2015-citi-global-citizenship-factsheet-diversity-en.pdf>).

¹⁰⁹ Andrew Woolf, *WITEM 19 & 20 launch 8 April 2016, Women in IT Executive Mentoring (WITEM) Program*, Australian Government Department of Finance, April 8, 2016.

¹¹⁰ *Sponsoring women to success*, Catalyst Knowledge Center, August 17, 2001; and Sylvia Ann Hewlett et al., “The sponsor effect: Breaking through the last glass ceiling”, *Harvard Business Review*, January 12, 2011.

Box 6. Sexual harassment can be a barrier to women's advancement

Sexual harassment in the workplace is a major issue and a highly sensitive topic around the world, with the groundbreaking social-media-driven #MeToo campaign making headlines in late 2017 and early 2018. One study found that as many as 40 percent of women workers in Asia Pacific had responded to surveys by saying they had experienced some type of harassment—verbal, physical, or sexual.¹ Globally, an estimated 35 percent of women have experienced some form of sexual harassment, although some studies suggest that the figure could be as high as 70 percent over women's lifetimes.²

Sexual harassment can have a negative impact on efforts to increase the number of women leaders in business by, for instance, making men and women reluctant to be included on mentorship programmes. Data from a partnership between Lean In and SurveyMonkey shows that male managers are now more hesitant to engage in mentoring activities with female colleagues: 30 percent of male managers say they are uncomfortable working alone with a women, double the previous share, and senior men are 3.5 times more likely to hesitate about having a working dinner with a junior woman, and five times more likely to hesitate about travelling for work with a junior woman.³ One way to overcome this issue is to establish formal programmes with standard procedures to ensure transparency. Lean In has launched a campaign called #MentorHer that encourages more people, especially men, to provide mentorship for women despite their concerns about performing this role.

More broadly, sexual harassment can disrupt women's careers. One 2017 study gave examples of women leaving a company to escape sexual harassment or because of frustration about their employer's inadequate response.⁴ The same study found that women who opt to stay can be ostracised by co-workers.

Companies can take practical steps to guard against sexual harassment. There is a robust case for them to institute clear policies on sexual harassment and respond to instances of sexual harassment by, for example, establishing an internal complaints procedure.⁵ At the same time, national governments can establish their own initiatives. In Australia, the Human Rights Commission conducts national sexual harassment prevalence surveys every five years with the aim of documenting harassment in the workplace.⁶

¹ *Stopping sexual harassment at work*, International Trade Union Confederation, April 2008.

² *Facts and figures: Ending violence against women*, UN Women, August 2017.

³ *Sexual harassment in the workplace: Key findings*, Lean In and SurveyMonkey, 2018 (<https://leanin.org/sexual-harassment-backlash-survey-results/>).

⁴ Heather McLaughlin, Christopher Uggen, and Amy Blackstone, "The economic and career effects of sexual harassment on working women", *Gender & Society*, volume 31, issue 3, June 2017.

⁵ The Australian Human Rights Commission has published a detailed report containing practical measures to tackle sexual harassment in the workplace. See *Ending workplace sexual harassment: A resource for small, medium, and large employers*, Australian Human Rights Commission, 2014.

⁶ *Sexual harassment. Know where the line is*, Australian Human Rights Commission, May 21, 2014.

- **Run leadership skills workshops and networking events to help women bolster their aspirations and push for higher positions:** Skills workshops and networking events can help women to push for higher positions, and companies and NGOs can each make a contribution. In India, Tata Group, which aims to have more than 1,000 women leaders by 2020, has in place programmes including iExcel, a cross-company initiative that provides mentoring with 18 senior executives and 35 CEOs from 45 firms in the group; Network to Win, which assigns mentors to small groups of junior female employees; and the Diversity and Women's Network, a support group for women and minorities that provides access to senior leadership, mentoring, workshops, and wellness sessions. These initiatives have already had an impact. In 2016, 50 percent of direct recruits to Tata Administrative Services were women, up from about 30 percent in 2013. The share of women leaders in Tata Communications increased by 10 percent between 2015 to 2016, compared with the 4 percent average at all Indian companies. The Tanmatra programme launched by Catalyst, IBM, and the Indian Institute of Management Bangalore offers women leaders with at least 15 years of work experience a nine-month cross-industry leadership-development programme. Lean In (with which McKinsey & Company has collaborated on Women in the Workplace, a research initiative) is active in more than 150 countries, offering networking opportunities as well as producing a library of expert videos and publishing discussion guides for women. In the Philippines, the Filipina CEO Circle organises forums aimed at building a bridge between one generation of woman CEOs and the next.

Partnerships between different actors are effective at driving gender initiatives

Cooperation and partnership among different players can be a highly effective way to push advances towards gender parity in work.¹¹¹

- **Partnerships between governments to make gender parity a priority:** APEC coordinates activities through the Policy Partnership on Women and the Economy.¹¹² The partnership works towards five key pillars, including women's leadership. Its activities include encouraging and monitoring the action plans of individual members to promote women's leadership. In 2017, the partnership released the second edition of its Women and the Economy Dashboard, which helps APEC member countries track and communicate progress on reducing barriers to women's advancement using 75 indicators.
- **Partnerships between organisations and institutions (public, private, local, or foreign) to initiate inclusion programmes:** NASSCOM aims to develop an inclusive work environment for women through a range of diversity initiatives on which it cooperates with the government and others. In 2017, NASSCOM partnered with the United Kingdom's Open University on a Women and IT Scorecard in India to demonstrate the differences in participation between men and women in the sector. Local companies can also foster industry partnerships that actively advocate for gender parity.¹¹³

¹¹¹ Kweilin Ellingrud, Mekala Krishnan, Anu Madgavkar, and Tracy Nowski, *Opinion: How cross-sector collaborations can accelerate progress toward gender equality*, Devex, November 2017.

¹¹² *Policy partnership on women and the economy working group*, Asia-Pacific Economic Cooperation (<https://www.apec.org/Groups/SOM-Steering-Committee-on-Economic-and-Technical-Cooperation/Working-Groups/Policy-Partnership-on-Women-and-the-Economy>).

¹¹³ *Delivering through diversity*, McKinsey & Company, January 2018.



Across Asia, there has been progress on increasing the representation of women in leadership positions in companies, but there are still significant gaps to fill and opportunities to explore. Many effective measures in the region can be more widely emulated and developed further by governments and companies, often working in partnership. The benefits of enhancing the career prospects of women are considerable, not only for women but for companies and the economies in which they work.



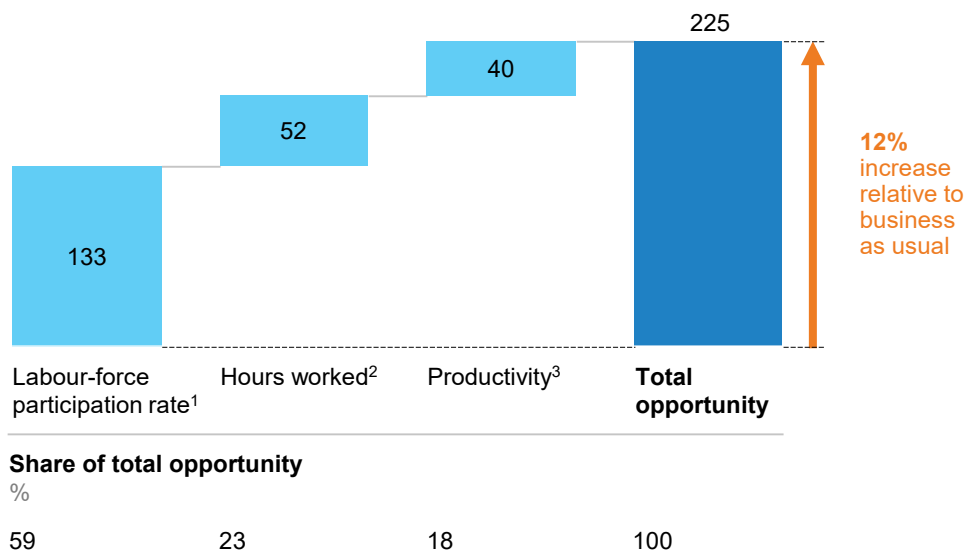
2. AUSTRALIA

Australia could add \$225 billion or 12 percent to annual GDP by 2025 in a best-in-region scenario by accelerating progress towards gender parity (Exhibit 14).¹¹⁴ Increasing women's participation in the labour force accounts for 59 percent of the GDP potential, 23 percent comes from increasing the paid hours women work, and 18 percent derives from increasing their productivity by equipping them to participate in higher-productivity sectors.¹¹⁵ Women currently make up 46 percent of Australia's labour force while accounting for 36 percent of the nation's GDP. This matches the global average but falls considerably behind Canada, Singapore, and the United States, where women contribute 39 to 40 percent, and France, where the share is 43 percent.

Exhibit 14

Australia could add \$225 billion to annual GDP by 2025—12 percent above business as usual

Incremental 2025 GDP from improving gender equality in the best-in-region scenario, relative to the business-as-usual scenario
\$ billion, in 2014 dollars



1 Implies female labour-force participation increasing from 59% in 2014 to 66% in the 2025 best-in-region scenario.

2 Implies full-time equivalent rate for females increasing from 76% in 2014 to 81% in the 2025 best-in-region scenario.

3 Implies weighted productivity for females increasing from \$128,000 in 2014 to \$167,000 in the 2025 best-in-region scenario.

NOTE: Numbers may not sum due to rounding.

SOURCE: McKinsey Global Institute analysis

¹¹⁴ We calculated Australia's best-in-region GDP opportunity by comparing its progress towards parity with that of Canada, New Zealand, and the United States. Elsewhere in this chapter, when we discuss MGI's GPS analysis, we compare Australia to the rest of Asia Pacific.

¹¹⁵ Note that increasing female productivity will come from equipping more women to participate in higher-productivity sectors. This doesn't account for other factors including increasing the number of women in leadership positions, which will also contribute to increasing productivity.



Australia



GDP opportunity from advancing women's equality¹

\$**225**
billion

added to annual
GDP by 2025

or **12%**

over business-as-usual
GDP by 2025



Gender inequality today²

Level of gender
inequality

Extremely high
0 – 0.50

High
0.50 – 0.75

Medium
0.75 – 0.95

Low
0.95 – 1.00

Australia

Asia Pacific
best

Asia Pacific
average

Global
best

Gender equality in work

0.66

0.73

0.44

0.73

Gender equality in society



Essential services
and enablers of
economic opportunity

0.95

0.96

0.85

0.97



Legal protection
and political voice

0.55

0.66

0.32

0.84



Physical security
and autonomy

0.86

0.96

0.82

0.97



Potential measures to capture the GDP opportunity

Government



Emphasise and embed macroeconomic case for change



Ensure economic incentives exist for mothers to work by adjusting childcare funding and income thresholds



Invest in shifting attitudes about role of women in society and work (e.g., awareness campaigns and role modelling)



Increase policy impact through gender-budgeting/analysis and stronger national mandates

Companies



Develop and articulate business case for gender diversity, linked to purpose and business goals



Increase support for women during life transitions (e.g., services and networks)



Increase equal provision and foster acceptance of flexible work practices



Expand participation in coalitions across sectors and geographies

1 GDP opportunity in scenario where all countries match their best-in-region country in progress towards gender parity.

2 GPS scores are made up of 15 indicators of gender equality in work and society, weighted equally. GPS runs from 0 (no gender equality) to 1.0 (parity); for instance, a 0.95 ratio represents 5% distance from gender parity.

SOURCE: McKinsey Global Institute analysis

Australia is relatively advanced on closing gender gaps compared with other countries in Asia Pacific, but the gap with world leaders on gender diversity is widening. The country has an opportunity to accelerate progress and become one of the world's leaders on gender inequality, particularly on female labour-force participation.

In this chapter, we focus on three specific aspects of improving women's labour-market participation that need to be addressed simultaneously: improving financial incentives to work, spreading best practices in workplace policies, and shifting attitudes about gender roles.

AUSTRALIA HAS TRAVELLED FURTHER TOWARDS GENDER PARITY THAN OTHERS IN THE REGION AND HAS SCOPE TO DO EVEN BETTER

Australia is further advanced towards parity than the Asia Pacific average on gender equality in work and on all three elements of gender equality in society. In fact, it has made more progress than the regional average on all 15 gender inequality indicators. It is near best in region on female-to-male ratio in professional and technical jobs, maternal mortality, sex ratio at birth, and child marriage, and best in region on educational level and financial and digital inclusion. In education, women have been participating in tertiary education at higher rates than men for decades, and they overtook men in enrolment in post-graduate degree programmes in 2006 (Exhibit 15).¹¹⁶

Nevertheless, inequality on political representation is still a major issue, and rates of violence against women remain high. Progress has stagnated in recent years on key indicators such as gender wage gaps and women's political representation. The full-time gender pay gap was 16 percent in 2017, only one percentage point lower than in 1996.¹¹⁷ Representation of women in Australian parliaments increased from 21 percent in 1997 to 33 percent in 2017, but that rise is still more modest than in other nations, leading to a drop in Australia's ranking on this metric by the Inter-Parliamentary Union from 27th to 50th.¹¹⁸

Australia can now aspire to be a world leader on all these aspects of gender equality, and it is not there yet.¹¹⁹ Of particular importance, given that it is a major source of additional GDP growth, is boosting women's participation in labour markets. Australia lags slightly behind some other advanced economies with a female-to-male labour-participation ratio of 0.83, compared with the United Kingdom and New Zealand at 0.88, Canada at 0.91, and the Nordic states led by Sweden at 0.96. Australia has made some progress. Its participation ratio rose from 0.76 to 0.86 between 1995 and 2015, slightly faster progress than in other developed countries.¹²⁰

¹¹⁶ There is still work to do to enhance women's education. Despite gender parity overall, imbalance persists in some key courses that will become increasingly important as the economy shifts towards sectors that require certain skills; STEM courses are an example. To enable improvement in female productivity and sustain progress on women's labour-force participation, Australia needs to encourage women to participate in the courses that are most likely to equip them with the skills they need to participate in a changing workforce.

¹¹⁷ This does not control for equivalent work, and therefore primarily reflects factors such as concentration in different industries and representation in leadership positions. A major contributor to the pay gap in Australia is differences in the gender composition of different industries' workforces. Women tend to be concentrated in low-paid sectors. Shifting these industry dynamics will be important to solving the gender gap, but we do not focus on this issue in this chapter. See *Gender equity insights 2017: Inside Australia's gender pay gap*, Bankwest Curtin Economics Centre and Workplace Gender Equality Agency, March 2017.

¹¹⁸ *Women in national parliaments*, Inter-Parliamentary Union (<http://archive.ipu.org/wmn-e/arc/classif011017.htm>).

¹¹⁹ These data on labour-force participation for Australia are based on the Australian Labour Force Survey, which differs slightly from the ILO data used for measuring this indicator in other parts of this report. It should also be noted that while Australia has made faster progress on this indicator than some other countries, the gap between Australia and other countries may be widening more broadly across the board. Between 2000 and 2017, Australia gained 0.06 index points on the World Economic Forum's composite indicator of gender equality to reach 0.73, but others made more headway—New Zealand gained 0.07, Canada 0.08, and Iceland 0.11. All three countries scored higher than Australia in 2000.

¹²⁰ New Zealand increased its ratio by 0.09, and Canada and the United Kingdom by 0.08.

Exhibit 15

Australia is one of the region's leaders on education, financial and digital inclusion, and legal protection, but is still behind the best in Asia Pacific on most metrics

Level of gender inequality ■ Extremely high ■ High ■ Medium ■ Low

	Australia	Asia Pacific best	Asia Pacific average ¹	Global best
Gender equality in work	0.66	0.73	0.44	0.73
Labour-force participation rate F/M ratio	0.83	0.93	0.60	1.00
Professional and technical jobs F/M ratio	1.19	1.42	0.95	2.66
Perceived wage gap for similar work F/M ratio	0.60	0.78	0.56	0.86
Leadership positions F/M ratio	0.58	0.96	0.25	1.13
Unpaid care work M/F ratio	0.55	0.58	0.25	0.85
Gender equality in society				
Essential services and enablers of economic opportunity	0.95	0.96	0.85	0.97
Unmet need for family planning % of women	11	4	10	4
Maternal mortality Per 100,000 births	6	5	102	3
Education level F/M ratio	1.00	1.00	0.92	1.00
Financial inclusion F/M ratio	1.00	1.00	0.76	1.00
Digital inclusion F/M ratio	1.00	1.00	0.77	1.00
Legal protection and political voice	0.55	0.66	0.32	0.84
Legal protection index	1.00	1.00	0.47	1.00
Political representation F/M ratio	0.36	0.55	0.19	0.93
Physical security and autonomy	0.86	0.96	0.82	0.97
Sex ratio at birth M/F ratio	1.06	1.03	1.11	1.02
Child marriage % of girls and young women	1	0	14	0
Violence against women % of women	25	14	28	6

¹ Weighted average based on 2016 female population.

SOURCE: McKinsey Global Institute analysis

Australia also has much higher rates of women working part time than the OECD average.¹²¹ This is both good and bad news. On the one hand, it suggests Australia may be relatively good at making part-time work possible for those who want it, effectively keeping women connected to the workforce when they don't want to—or cannot—work full time. On the other hand, the high rate of part-time work may indicate that women find it relatively hard to transition back into full-time work. Moreover, high rates of female part-time work without equivalent rates of male part-time work may entrench gender roles.

FEMALE LABOUR-FORCE PARTICIPATION IS CRITICAL TO DELIVERING THE POTENTIAL GDP BOOST FROM ADVANCING WOMEN'S EQUALITY

Demographic change means that there is a pressing need to increase the number of Australian workers, and increasing women's labour-force participation is one way to achieve this. An expanding labour pool contributed over 25 percent of national income growth in Australia between 1993 and 2005. That contribution has already been declining—to 17 percent of income growth between 2005 and 2013—and the aging of Australia's population threatens to further undermine this source of higher incomes.¹²² There will be fewer working people to support a bulge of people retiring. Australia's ratio of people of working age to those over 65 years is expected to drop from 4.5 in 2015 to 3.7 in 2025, and to 2.7 by 2055.

In order to increase women's labour-force participation, the key group for Australia to focus on is women aged 24 to 35 who have children. They currently drop out of the workforce in great numbers—more than in many other countries. The gap between female and male participation is largest in this age bracket; the female participation rate is around 75 percent, while the male rate is 91 percent. This gap largely arises when women have children and do not subsequently return to the workforce. There is a 15 percent gap in participation between women without children and mothers. Even when women want to return, many struggle; the gap in underemployment between men and women is largest (at over 5 percent) in the 35-to-49 age bracket.¹²³ This gap is not inevitable. Australia's maternal participation rate is lower than the average in advanced OECD economies (Exhibit 16). Moreover, global evidence suggests that high female labour-force participation is consistent with maintaining high rates of employment for men.¹²⁴

¹²¹ *The pursuit of gender equality: An uphill battle*, OECD, October 4, 2017.

¹²² *Compete to prosper: Improving Australia's global competitiveness*, McKinsey Australia, July 2014.

¹²³ Underemployment occurs when people are willing and able to work more hours than they currently do (and they are working less than the threshold 35 hours per week).

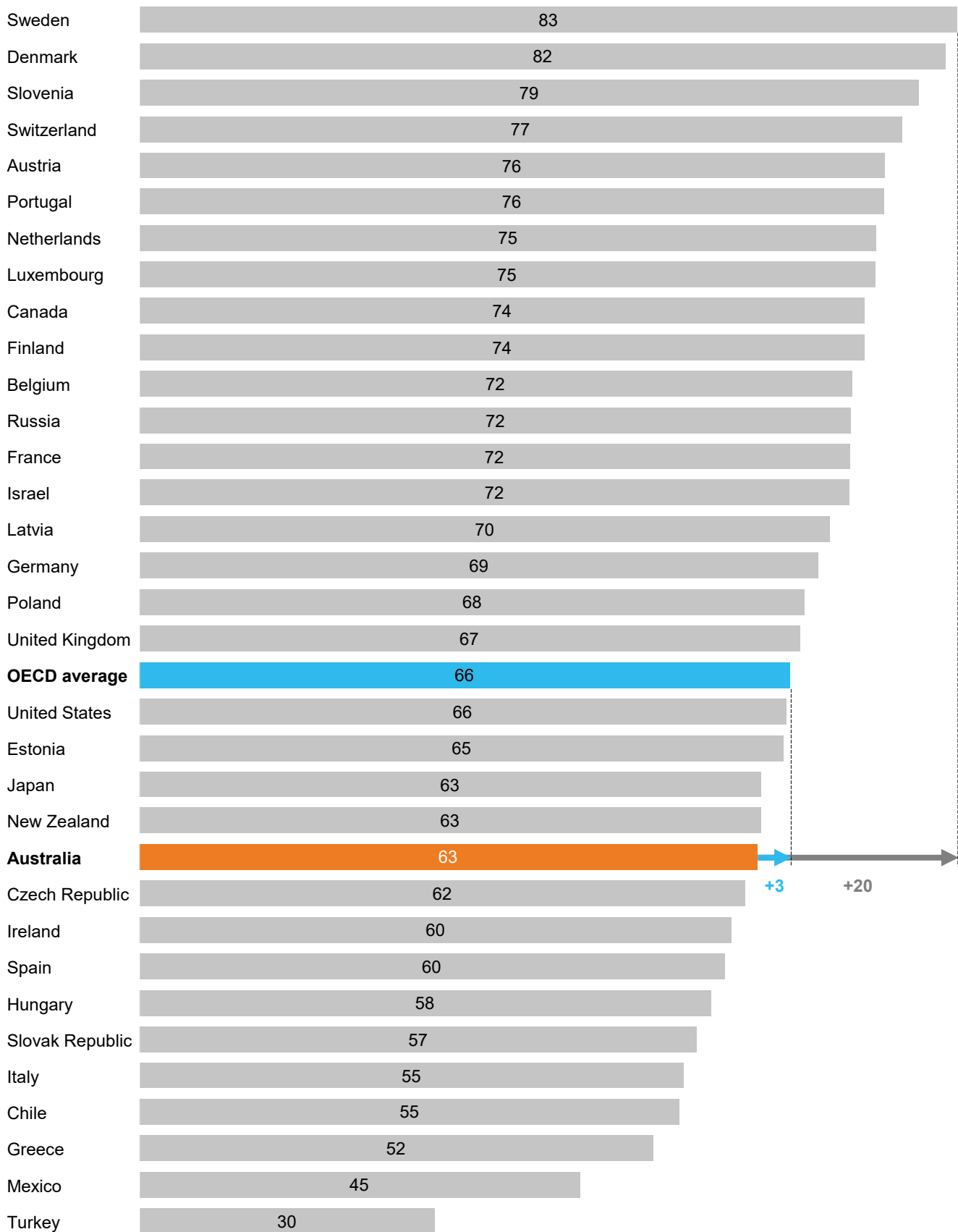
¹²⁴ In 60 countries between 1980 and 2010, the average rate of labour-force participation for women of prime working age rose by 19.7 percentage points, and the corresponding male rate fell by only 1.5 percentage points. See *The power of parity: How advancing women's equality can add \$12 trillion to global growth*, McKinsey Global Institute, September 2015.

Exhibit 16

Labour-force participation by mothers is lower in Australia than the OECD average

Maternal employment rates, 2014 or latest available year

%



SOURCE: OECD Family Database; McKinsey Global Institute analysis

Since the women who step out (and stay out) of the workforce to look after their families do so for a range of reasons, improving labour-force participation will require simultaneous action on multiple fronts.¹²⁵ Some women prefer to work, but the cost or lack of availability of childcare stands in the way. Improving marginal financial incentives to work after the cost of childcare and taxation is key here. Other women simply find it too difficult to juggle the double burden of caring for children and engaging in paid work. For them, spreading policies in the workplace consistent with best practices may be the most important intervention to make the return to work easier. Some women prefer their work as caregivers to paid work. These women should continue to feel empowered to make that choice for themselves. Underlying the decisions for all of these groups are societal attitudes, which place internal and external pressures on women to act as the primary carer (and on men not to be the primary carer). Shifting these attitudes is the third front on which action can be taken.

The three factors—marginal incentives, workplace policies, and attitudes—need to work together. For instance, without a shift in attitudes, supportive workplace policies will continue to be taken up primarily by women, thereby entrenching the disproportionate time women spend on unpaid care. When these factors do work together, they can create a virtuous cycle. Affordable childcare enables higher uptake, which is likely to lead to more social acceptance of using childcare, and then even more uptake. We now examine these three areas.

Short-term financial incentives to work limit uptake of formal childcare

Australia has low uptake of paid childcare, creating a gap that is often filled by mothers. In all key age groups, Australian children's participation in formal childcare is slightly lower than the OECD average and significantly lower than in peers that have adopted best practices (Exhibit 17).¹²⁶ This is due to a combination of high childcare costs and the way the tax system is set up. For many households, there is little economic incentive for second earners (often women) to return to work instead of caring for children at home.

Thirty percent of non-working parents with children from birth to the age of 12, and 49 percent of part-time working parents, say that expensive childcare is the primary barrier to their participation in the labour force. Net childcare costs (the amount paid by individual families) were 20 percent of an average family income in 2015, compared with an average of 13 percent in OECD economies.¹²⁷ Net childcare costs have continued to rise substantially faster than household incomes since this comparison was made in 2015. Government spending per child up to the age of three is slightly lower than the OECD average, but spending on pre-primary education (for children aged three and upwards) is relatively high. The OECD estimates that in 2013 the Australian government spent \$13,171 per child on pre-primary education, significantly above the OECD average of \$8,070, \$8,727 in the United Kingdom, and \$10,252 in New Zealand, but below \$14,704 in Norway.¹²⁸

¹²⁵ Our discussion focused on two-parent families—a female and a male—because this structure accounts for the majority of households with children and it is in such households that the gender dynamics of couples play out. However, we acknowledge that households in Australia are diverse.

¹²⁶ Note that these figures have not changed significantly since 2013. For example, the latest Australian data suggest that 85 percent of four-year-olds are enrolled in pre-school, and 62 percent of three-year-olds are in childcare (58 percent are in pre-school). See *Report on government services: Annual report 2018*, Australian Government Productivity Commission, 2018.

¹²⁷ For two children aged two and three, and assuming a two-parent household both earning average Australian wages. See *Starting strong IV: Monitoring quality in early childhood education and care*, OECD, October 28, 2015. Australia does have high rates of non-parental informal care (usually grandparents) compared with international peers, but mothers still play a large role.

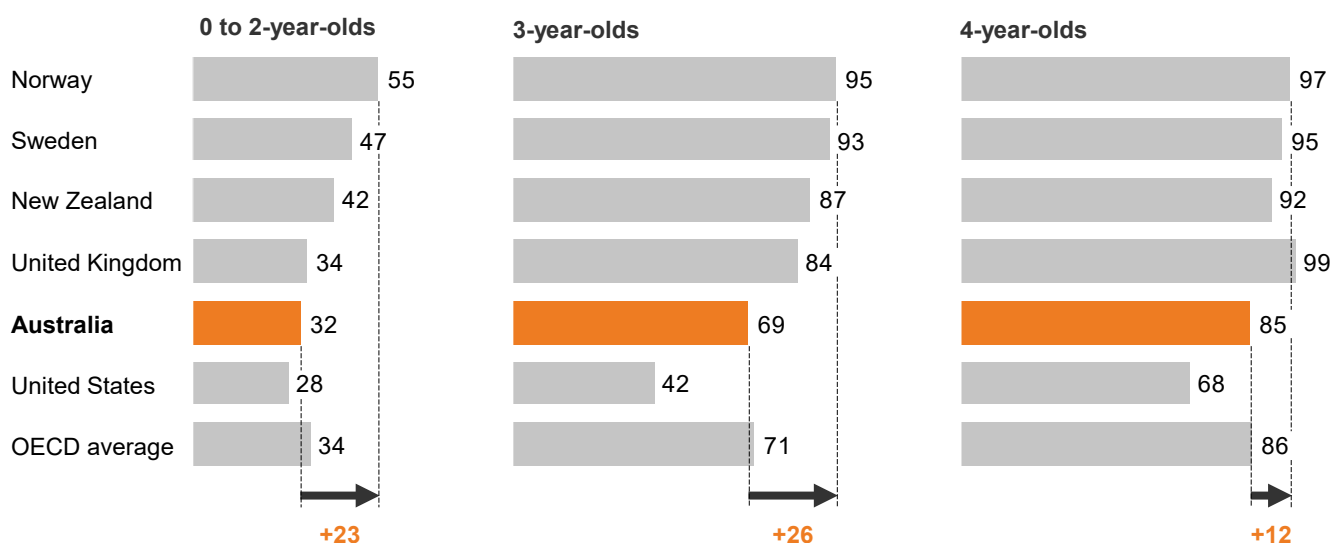
¹²⁸ Since this comparison was made, government spending on all early childhood education and care services per child has increased at just over 5 percent per year. See 2013 data from Australia's Productivity Commission in *Starting strong IV: Monitoring quality in early childhood education and care*, OECD, October 28, 2015.

Exhibit 17

Australia has lower participation in early childhood education than many other advanced economies, especially in the case of three-year-olds

Participation rate in any formal early childhood education and care, 2013

%



SOURCE: OECD Family Database; McKinsey Global Institute analysis

Compounding this issue is the way the Australian tax system treats family benefits and childcare rebates, which are means tested on the basis of household income so that the contributions of secondary wage earners are added to those of the primary earner. This is in contrast to income tax that treats each individual in a household separately.¹²⁹ This means that there is very little economic value for a parent to return to work as secondary earners, at least in the short term.¹³⁰ Australia's Productivity Commission estimated that a secondary earner on an average wage would designate more than 50 percent of earnings for childcare if they worked two days per week, and over 90 percent of their earnings if they worked four days per week.¹³¹ From a purely financial perspective, therefore, it often makes more sense for a mother to step out of the labour market to look after children than a father, as his full-time salary is on average higher. As we have noted, there is a 16 percent wage gap between men and women working full time.¹³²

¹²⁹ Miranda Stewart, ed., *Tax, social policy and gender: Rethinking equality and efficiency*, Australian National University Press, 2017; and Patricia Apps, "The central role of a well-designed income tax in 'the modern economy'", *Australian Tax Forum*, volume 30, number 4, December 2015.

¹³⁰ Shifts in the Australian tax system over the past 30 years towards joint taxation for households, shifting the burden of taxation onto middle-income earners, and reducing universality of family benefits provision have been linked to negative effects on the female labour supply. See Patricia Apps, "The central role of a well-designed income tax in 'the modern economy'", *Australian Tax Forum*, volume 30, number 4, December 2015.

¹³¹ The impact of this effective marginal incentive of work differs depending on incomes. When the primary earner earns around \$50,000 per year, the secondary earner might sacrifice more than 100 percent of his or her wages if earning between \$20,000 and \$25,000 per year. Note that in 2018 changes to childcare benefits will be introduced that may affect these figures. See *Childcare and early childhood learning, Overview and recommendations*, Productivity Commission Inquiry Report, Australian Government Productivity Commission, number 73, October 31, 2014; and Miranda Stewart, ed., *Tax, social policy and gender: Rethinking equality and efficiency*, Australian National University Press, 2017.

¹³² *Gender equity insights 2017: Inside Australia's gender pay gap*, Bankwest Curtin Economics Centre and Workplace Gender Equality Agency, 2017.

Workplaces can help women balance work and family and encourage men to be more active in childcare—but both provision and uptake of support need to rise

Two types of workplace practices are important to enabling women to work—policies that enable flexible work, and programmes that help women during life transitions such as becoming a mother and then returning to work.¹³³ Provision of such arrangements is only the first step. The second is to encourage their uptake.

Flexible work practices

Flexible work practices can promote female labour-force participation directly by supporting women to more easily balance work and family, and indirectly by encouraging men to take a more active role in childcare. Many Australian companies are making progress, but there is significant room for improvement in both the provision and uptake of entitlements.

Providing flexible working options, including parental leave, increases the rate at which women remain in the workforce. Companies providing at least eight types of flexible working arrangements have 11 percent higher representation of women on their staffs.¹³⁴ Parental leave is one of the most important flexible work policies for women's overall labour-force participation.¹³⁵ If leave is offered, women remain connected to the workforce and are therefore more likely to come back than if they had not been offered paid leave.¹³⁶ The introduction of 12 months of paid leave in Germany, for instance, led to an increase in women's workforce participation after a child was aged one, and an increase in the fertility rate.¹³⁷

Providing flexible options for men is also critical. This increases the likelihood that women take up the options as they become more confident that there will not be negative repercussions on their careers.¹³⁸ Offering parental leave to men leads to a more equal balance in the sharing of unpaid care work, which has further benefits for women's ability to participate in paid work.¹³⁹ Studies in Australia and internationally show that men who take leave (and particularly who take longer leave) tend to contribute more to childcare and housework throughout the child's life.¹⁴⁰ In addition to supporting women's labour-force participation, supportive workplace policies have benefits for parents' life satisfaction and their children's development.¹⁴¹

¹³³ There are various types of workplace policies that support flexibility, including leave-based options covering parental leave policies, unpaid leave, and part-time work; ways of working including remote work and flexible hours; and support systems including breastfeeding facilities, internal support networks, childcare referrals, and emergency childcare provision.

¹³⁴ *Women in leadership: Lessons from Australian companies leading the way*, McKinsey & Company, Workplace Gender Equality Agency, and Business Council of Australia, November 2017.

¹³⁵ Olivier Thévenon and Anne Solaz, *Labor market effects of parental leave policies in OECD countries*, OECD Social, Employment and Migration working papers, number 141, OECD, January 2013, and Yusuf Emre Akgunduz and Janneke Plantenga, "Labour market effects of parental leave in Europe", *Cambridge Journal of Economics*, volume 37, issue 4, 2013.

¹³⁶ Miranda Stewart, ed., *Tax, social policy and gender: Rethinking equality and efficiency*, Australian National University Press, 2017.

¹³⁷ Mathias Huebener et al., "Zehn Jahre Elterngeld: Eine wichtige familienpolitische Maßnahme (Ten years of parental benefits: An important family policy measure)", *DIW-Wochenbericht*, German Institute for Economic Research, volume 83, number 49, December 2016; and Sigbjørn Johnsen, "Women in work: The Norwegian experience", *OECD Observer*, number 293, Q4 2012.

¹³⁸ Women often don't take advantage of flexible policies out of a belief that it will reflect poorly on them. See *Women in leadership: Lessons from Australian companies leading the way*, McKinsey & Company, Workplace Gender Equality Agency, and Business Council of Australia, November 2017.

¹³⁹ The share of women engaged in unpaid work relative to men has a high correlation with female labour-force participation rates. See *The power of parity: How advancing women's equality can add \$12 trillion to global growth*, McKinsey Global Institute, September 2015.

¹⁴⁰ Maria C. Huerta et al., "Fathers' leave and fathers' involvement: Evidence from four OECD countries", *European Journal of Social Security*, volume 16, issue 4, December 2014.

¹⁴¹ Miranda Stewart, ed., *Tax, social policy and gender: Rethinking equality and efficiency*, Australian National University Press, 2017.

Provision of these policies isn't enough—uptake (from both sexes) is the key not only to ensure that people actually benefit, but also to create role models to further encourage others. For example, one study found that men are 11 percentage points more likely to take leave if one of their co-workers has taken leave, and 15 percentage points more likely if their brother has taken leave.¹⁴² Broadly, three factors drive uptake. The first is a workplace culture where employees view “flex” as a means for people to optimise their performance rather than as a concession to parents or an option for people who aren't serious about their careers. The second is roles that focus on outcomes rather than inputs, an approach that is far more suited to flexible working.¹⁴³ The third is companies reframing flexible options as “opt out” rather than “opt in”—thereby making them the rule rather than the exception.

In Australia, there is considerable room for both improved provision of workplace policies and higher uptake among men. Only 52 percent of employers have a flexible working arrangement policy, 16 percent have a flexible working strategy, and only 13 percent of companies offer eight or more flexible work options (an indicator of best practices) to both men and women who are both managers and non-managers.¹⁴⁴ It doesn't need to be this way. Some Australian companies are demonstrating that improving access to flexibility is possible with sufficient creativity and commitment. For example, REA Group enables job sharing by pairing coders who contribute to the same piece of work (even if they work in different offices), an approach that is often considered too logistically difficult.

Specifically on parental leave, Australia's federal mandate, while not lagging behind global peers, is not consistent with best practices. Australia provides 18 weeks of paid parental leave at minimum wage plus two weeks of minimum-wage “Dad and Partner Pay”. This is much less generous than Germany's scheme, which provides 14 weeks of maternity leave, paid at 100 percent of the individual's earnings with no ceiling (mostly covered by employers). Both parents also have access to an additional 12 months (including a bonus if both parents take leave) of parental leave at 67 percent of the individual's earnings up to a cap. Employer-provided leave doesn't fill this gap. In 2012, only 28 percent of Australian employers had employer-paid maternity leave, and only 22 percent had paternity leave.¹⁴⁵

Moreover, uptake is low among men. Only 24 men per 100 live births take federally provided paternity leave, less than one-third the rate in Finland.¹⁴⁶ Eleven percent of fathers take no time off when their baby is born, and for those who do, the average duration is short.¹⁴⁷ Surveys suggest that the low uptake is related to financial considerations and perceptions in the workplace that men are not carers to nearly the extent that women are.

Support through major life transitions

The second role that workplace policies can play is to help women through major life transitions by providing ancillary benefits such as breastfeeding rooms or referral services for carers, and investing in support networks that provide women with mentorship and connections to the workplace (through offerings such as events, meetings, and newsletters) before and during their parental leave. This type of support has a measurable impact on

¹⁴² Tanya Basu, “Lessons from Norway may help nudge American dads into taking paternity leave”, *The Cut*, February 9, 2016.

¹⁴³ *Women in leadership: Lessons from Australian companies leading the way*, McKinsey & Company, Workplace Gender Equality Agency, and Business Council of Australia, November 2017.

¹⁴⁴ *Ibid.*

¹⁴⁵ *State of Australia's fathers*, Save the Children Australia, September 2015.

¹⁴⁶ Note that fathers' take-up of leave may have risen since the introduction of the Dad and Partner Pay scheme, which offers two weeks of federal wages for fathers on unpaid leave. One survey showed that 36 percent of fathers took Dad and Partner Pay. See Sonja Blum, Alison Koslowski, and Peter Moss, eds., *13th international review of leave policies and related research 2017*, International Network on Leave Policies and Research, June 2017.

¹⁴⁷ Among men who do take leave, they take 2.8 weeks of combined leave in the first six months of the child's life. See *State of Australia's fathers*, Save the Children Australia, September 2015, and *Millennium Mums Report: waves 1–5*, University of Queensland Institute for Social Science Research, February 2017.

retention. Companies with five or more informal support measures have 62 percent fewer women managers resigning while on parental leave than companies with none. While the latter two initiatives are now emerging as a topic for discussion among Australian companies, only around 8 percent of companies have comprehensive provision.¹⁴⁸

Shifting attitudes among men and women towards gender roles is necessary to maximise women's participation

Even if childcare were affordable, the tax system worked in favour of second earners in households, and flexible working policies were to spread, a change in societal attitudes is needed to achieve the full value of women's participation. While Australia is relatively progressive compared with many other countries on attitudes towards the role of women, there is room for more progress.

Traditional attitudes about the role of women in society persist, and may act as a constraint on many women wanting to participate in paid work. In the World Values Survey, 21 percent of Australians agreed with the statement "When a mother works for pay, the children suffer".¹⁴⁹ In the 2014 Longitudinal Study of Australian Children survey, 28 percent of mothers and 27 percent of fathers agreed with the statement "It is better for the family if the husband is the principal breadwinner outside the home and the wife has primary responsibility for the home and children". These attitudes exhibit remarkably little progress over time.¹⁵⁰ They also flow through to how couples operate at home. Women undertake around two-thirds of the unpaid care work in Australia, even when both members of the couple are employed full time, but still tend to view the division of unpaid labour as "fair".¹⁵¹

Such attitudes reduce women's labour-force participation. Women are much more likely to step out of the workforce when they or their partner hold traditional attitudes (Exhibit 18).¹⁵²

The Longitudinal Study of Australian Children survey found that 48 percent of mothers who are not employed supported the male breadwinner model, compared with 16 percent of full-time employed mothers.¹⁵³ It also found that 83 percent of women who are not employed and hold more traditional attitudes cite family reasons rather than external constraints such as not being able to find a suitable job or working not being financially worthwhile.¹⁵⁴ The prevalence of these attitudes in society also reinforces external expectations that women may consciously or subconsciously feel pressure to fulfil. For example, traditional role models may shape women's career decisions from a young age, further compounding

¹⁴⁸ "Comprehensive" denotes five or more informal measures. The most common ancillary services—breastfeeding facilities and referral services for parents—exist in only 58 percent and 50 percent of companies with over 100 employees, respectively. More advanced services such as internal support networks are offered by only 19 percent of companies, and subsidised or on-site childcare is offered by only 5 percent and 9 percent of companies, respectively. See *Women in leadership: Lessons from Australian companies leading the way*, McKinsey & Company, Workplace Gender Equality Agency, and Business Council of Australia, November 2017.

¹⁴⁹ This is the same share of respondents as in New Zealand—lower than the 25 percent among US respondents, but higher than Japan's 15 percent.

¹⁵⁰ In 2001, only 48 percent of Australian survey respondents in the International Social Survey Program disagreed with the statement "A woman should devote almost all of her time to her family". This is down only 1 percent from the 1984 results. See Marcel van Egmond et al., "A stalled revolution: Gender role attitudes in Australia, 1986–2005", *Journal of Population Research*, volume 27, issue 3, 2010.

¹⁵¹ Jennifer Baxter, "Gender role attitudes within couples, and parents' time in paid work, child care and housework", in *The Longitudinal Study of Australian Children Annual Statistical Report 2014*, Australian Institute of Family Studies, August 2015.

¹⁵² It is not only mothers' views that exhibit this pattern: 42 percent of fathers whose wives are not employed supported the traditional model, compared with only 16 percent of those whose wives work full time.

¹⁵³ *The Longitudinal Study of Australian Children Annual Statistical Report 2014*, Australian Institute of Family Studies, August 2015.

¹⁵⁴ Jennifer Baxter, "Gender role attitudes within couples, and parents' time in paid work, child care and housework", in *The Longitudinal Study of Australian Children Annual Statistical Report 2014*, Australian Institute of Family Studies, August 2015.

the issue—women may choose more flexible but lower-paying careers, which affects the financial calculus when they eventually have children.

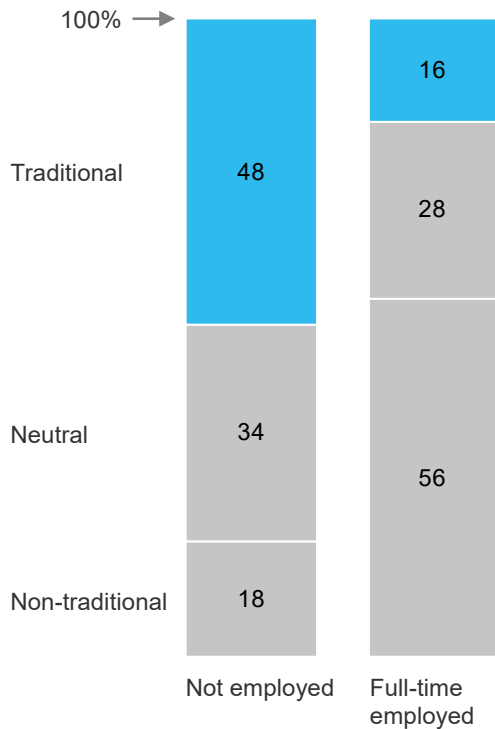
Attitudinal shifts are vital to unlocking the full potential of other policies such as those offering flexibility at work. In 2012, 57 percent of Australians said they believed that paid leave entitlements should be taken entirely or mostly by the mother.¹⁵⁵ This suggests that without shifts in attitudes, women will continue to take on the bulk of leave and flexible work, even when those opportunities are equally available to both genders.

Exhibit 18

Disproportionate numbers of women with traditional views about work and family step out of the labour force

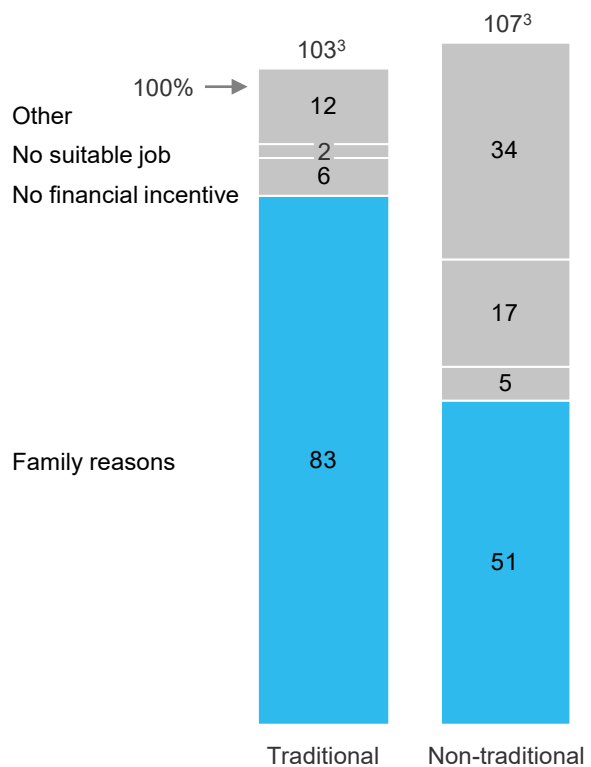
A significant number of women who are not employed hold traditional attitudes¹

% of respondents



For women with traditional attitudes, looking after their family is the primary reason for not working²

% of respondents who are not employed selecting each barrier



¹ Agree, neutral, or disagree responses to the statement “It is better for the family if the husband is the principal breadwinner outside the home and the wife has primary responsibility for the home and children”.

² Based on responses to “Reasons for non-employment”. Participants could select more than one reason.

³ Figures do not sum to 100% because respondents could select more than one option.

SOURCE: *The Longitudinal Study of Australian Children Annual Statistical Report 2014*; McKinsey Global Institute analysis

¹⁵⁵ This is a much less balanced situation than in Sweden, where only 26 percent believe it should be the mother who takes the leave, and slightly less balanced than the United States, where 54 percent hold this view (even though the United States has much shorter paid leave entitlements).

ACTION IN FIVE AREAS COULD HELP MEET AUSTRALIA'S AIM OF RAISING WOMEN'S LABOUR-FORCE PARTICIPATION

Australia's government has demonstrated that it is aware of the importance of closing gender gaps, and it has a particular focus on raising women's labour-force participation. It has committed itself to the G20 target of reducing the participation gap between women and men by 25 percent by 2025. We believe Australia can consider acting in five priority areas to achieve this aim.

1. Articulate a clear case for change at the macroeconomic, company, and individual levels

- **Develop a clear macroeconomic and social case for policies promoting female participation:** The first step to accelerating progress on gender in Australia is to ensure that key players understand why their actions are so important and what the benefit will be. For government, this involves developing a clear economic and social case for policies promoting female labour-force participation, and embedding that case clearly in policy communications. This report aims to serve as a foundation for this economic case.
- **Communicate the individual and family benefits of workforce parity through awareness campaigns:** Individuals are also key players. Ultimately, decisions about labour-force participation rest with each family unit. Communicating the financial and non-financial benefits for women, men, and children from women participating can be achieved by governments, the private sector, and NGOs. The long-term financial implications for women's economic security—on superannuation and earnings when a woman returns to the labour force—are large and often outweigh the short-term financial calculus for families. There is also evidence of significant benefits beyond women's long-term financial security. Fathers who are more engaged with their children and contribute more to housework and childcare report being more satisfied with their lives than those who engage less; they also have a lower risk of divorce.¹⁵⁶ Children's cognitive and behavioural development improves with fathers' greater involvement in childcare.¹⁵⁷ Finally, families may be more resilient to changed circumstances such as ill health or retrenchment if both partners have a career.
- **Make a strong case for gender balance in the organisation, linked to purpose and business goals:** For businesses, there is a need to articulate why gender balance in their organisation is important, link it directly with the company's purpose and productivity, and disseminate it so that employees at all levels contribute to action.¹⁵⁸ For many companies, this case centres on the benefits of attracting and retaining the right talent in an increasingly competitive market, facilitating a high degree of employee engagement, and enabling higher productivity (as well as more company-specific benefits) through diversity.

¹⁵⁶ See Maria C. Huerta et al., "Fathers' leave and fathers' involvement: Evidence from four OECD countries", *European Journal of Social Security*, volume 16, issue 4, December 2014; and Wendy Sigle-Rushton, "Men's unpaid work and divorce: Reassessing specialization and trade in British families", *Feminist Economics*, volume 16, issue 2, 2010.

¹⁵⁷ Willem Adema, "Greater gender equality: What role for family policy?" *Family Matters*, number 93, December 2013.

¹⁵⁸ For more discussion on this topic, see *Women in Leadership: Lessons from Australian companies leading the way*, McKinsey & Company, Workplace Gender Equality Agency, and Business Council of Australia, November 2017.

2. Ensure economic incentives exist for all mothers to work

- **Provide long-term budgetary support for more universal childcare:** Australia has reached a consensus on the importance of investing in childcare to enable more women to work if they so desire. To fulfil this aim, the government established a Productivity Commission investigation in 2013. In 2018, a new childcare policy will be introduced, broadly in line with Productivity Commission recommendations. Childcare subsidies will be restructured so that a set number of hours are covered (at a capped rate), rather than having the government contribute a set amount per week. Subsidies will also increase for those with low incomes but will decline for those with middle and high incomes. This restructuring may help ease the pressure on families, particularly those with lower incomes. Ongoing evaluation of the effects of this policy on families at all income levels, and continued exploration of models to increase the efficiency and effectiveness of childcare, are important and may lead to a shift in the way childcare is delivered or its pricing is regulated.
- **Adjust means testing for childcare-related benefits to retain incentives for middle-class women to work:** Household means testing continues to discourage women, especially middle-class women, from participating in work. Three options have been raised in public discussion to reduce this effect: (1) raise (or eliminate) the threshold for reduced benefits; (2) enable tax deductibility of childcare (as in the United Kingdom), and (3) means test individuals (as opposed to households) as income tax is currently calculated.¹⁵⁹ This would mean that incentives for women to work are not distorted by their husband's earnings. Opponents of increasing subsidies or tax deductibility for middle-income earners in Australia often argue that such a policy constitutes middle-class welfare and benefits higher-income women the most. However, in some countries such approaches are regarded as a necessary investment to achieve longer-term economic benefits. The large (\$225 billion) GDP opportunity from advancing women's gender equality in work is a strong economic rationale for such an investment. Australia might also consider analysing the value for childhood development and consequent productivity improvements in the future workforce.

3. Increase equal provision, uptake, and acceptance of flexible policies and life-transition support for women

Australia can do more to broaden the availability of parental leave and flexible work options for men, particularly in small and medium-sized enterprises (SMEs) where these options are currently limited.¹⁶⁰ In addition, it would be useful if uptake is encouraged, and additional support given to women during life transitions. There are several ways to achieve this:

- **Encourage equal uptake of leave by making it more financially attractive, flexible, and understood:** Increasing the financial attractiveness of paternity leave is an important way to encourage its uptake. Options at a federal level might include providing “bonus” leave when both members of a couple take a significant amount of time off when they become parents.¹⁶¹ When Germany introduced a bonus for sharing leave, the entitlement for both parents rose from 12 months to 14, and the proportion of children whose fathers took parental leave increased from less than 9 percent in 2007

¹⁵⁹ The United Kingdom allows 85 percent of childcare costs to be tax free or subject to a tax credit, in addition to the 15 hours of free education to which three- and four-year-olds are entitled. See Miranda Stewart, ed., *Tax, social policy and gender: Rethinking equality and efficiency*, Australian National University Press, 2017.

¹⁶⁰ Workplace Gender Equality Agency data.

¹⁶¹ Sweden, for instance, offers a cash bonus if both parents divide the leave available equally; Austria grants an additional two to six months if the leave is shared. In Iceland, increasing paternity leave boosted the proportion of available leave days taken by fathers from 3 percent in 2001 to 35 percent in 2008. See Jorge Cabrita and Felix Wohlgemuth, *Promoting uptake of parental and paternity leave among fathers in the European Union*, European Foundation for the Improvement of Living and Working Conditions, February 2015; and Willem Adema, “Greater gender equality: What role for family policy?” *Family Matters*, number 93, December 2013. For more on paid leave in Iceland, see Guðný Björk Eydal and Ingólfur V Gíslason, *Paid parental leave in Iceland—history and context*, 2008.

to 25 percent in the second half of 2010.¹⁶² Moreover, parental leave benefits need to reflect actual (not minimum) wages to reduce the likelihood that gender pay gaps create an incentive for women to leave the workforce rather than men. Employers can also help incentivise men to take leave. Aurizon's Shared Care programme, for example, gives employees who are mothers the option to return to work at 150 percent of their pay while their husband is on leave (if he has no paid leave available). Increasing the flexibility of leave by offering a part-time option has helped fathers and mothers who don't want to step out of the workforce entirely in countries including Germany, the Netherlands, and the United Kingdom.¹⁶³ Clearer information about entitlements is also needed.¹⁶⁴ Providing better information about paternity leave and adding advice on paternity benefits in maternity leave information can also help prompt uptake that may not even have been considered otherwise.

- **Increase support including services and networks during life transitions:** Organisations can support their female employees during pregnancy, maternity leave, and return to work in small but important ways. Unilever Australia and New Zealand, for example, have both striven to ensure that parents feel valued while they are away from work.¹⁶⁵ The CEO attends regular parents' club events aimed at keeping participants updated on how their areas of work are going, helping to make parents feel connected to the workplace and making it easier to reintegrate once they come back.
- **Foster acceptance of flexibility (for both genders) through role models and positive communication:** Many organisations can learn from those already taking steps to make the taking of leave and working flexibly accepted in the workplace. For example, in 2014 Telstra introduced All Roles Flex, an initiative that encourages company leaders to discuss and consider flexible options for all employees. Since then, the company has seen employee engagement and retention rise.¹⁶⁶ To achieve a cultural shift, leaders need to communicate the business case, role model, train frontline leaders, normalise participation, and ensure accountability.¹⁶⁷ Many of these elements can be built into a single programme, as Mirvac Group has done with its My Simple Thing initiative, which communicates a strong case for change based on performance outcomes and on employee engagement, which has risen since the programme started. Leadership team members become role models by publicising their adherence to their own personal "simple things". Frontline managers undertook training before the programme rolled out on how to facilitate conversations effectively, and participation was normalised as all teams were expected to commit.

¹⁶² Willem Adema, "Greater gender equality: What role for family policy?" *Family Matters*, number 93, December 2013.

¹⁶³ Employers must give approval for the taking of part-time leave. See Jorge Cabrita and Felix Wohlgemuth, *Promoting uptake of parental and paternity leave among fathers in the European Union*, European Foundation for the Improvement of Living and Working Conditions, February 2015.

¹⁶⁴ Awareness and understanding of benefits for fathers are much lower than for mothers. For example, in one survey, 25 percent of fathers had not heard of the Dad and Partner Pay scheme, let alone clearly understood the possible benefits. See Sonja Blum, Alison Koslowski, and Peter Moss, eds., *13th international review of leave policies and related research*, International Network on Leave Policies and Research, 2017.

¹⁶⁵ *Women in leadership: Lessons from Australian companies leading the way*, McKinsey & Company, Workplace Gender Equality Agency, and Business Council of Australia, November 2017.

¹⁶⁶ *All roles flex: Our approach to flexibility*, Telstra (<https://careers.telstra.com/allrolesflex>).

¹⁶⁷ *Women in leadership: Lessons from Australian companies leading the way*, McKinsey & Company, Workplace Gender Equality Agency, and Business Council of Australia, November 2017.

4. Invest in shifting attitudes about the role of women in society and work

Changing attitudes about gender roles is a vital part of all efforts to close gender gaps. Given that children are socialised from a young age, it is important to engage them as well as adults on this topic.

- **Launch public-awareness campaigns on the benefits of women being free to pursue careers and of parents sharing childcare:** Better informing the population about the individual, family, and communal benefits of female labour-force participation may help facilitate a shift in attitudes. Public-awareness campaigns are one way to do this. Several entities have attempted to tackle different aspects of this issue. For example, Australia's Equilibrium Man Challenge, a series of online microdocumentaries, raised awareness of work-life balance and attracted 30,000 views.¹⁶⁸ ANZ has run an #equalfuture campaign calling attention to attitudes about gender pay gaps. However, there has been no large-scale, comprehensive campaign.
- **Normalise male child-rearing through role modelling by key influencers in society and companies:** Using role models to indicate that men are caring for children is another approach. Options include giving out awards, ambassador campaigns, and weaving references to male role models through the education system, thereby exposing children to the range of paths available to them.¹⁶⁹ The media can help by ensuring that women are well represented, for example as sources for articles.¹⁷⁰ The examples noted here are by no means comprehensive; investing time and money in more creative solutions would be valuable. The government can actively seek out leading thinkers and test cutting-edge approaches. The government of the state of Victoria, for instance, has invited internationally recognised behavioural insights experts to design strategies to address societal attitudes and biases that drive gender inequality.¹⁷¹

Using marginal incentives and workplace policies targeted towards men can help to reinforce attitudinal shifts, creating the virtuous cycle that we have mentioned. For instance, men who take time off to look after their children are more likely to accept other men doing the same.¹⁷² Children who see both parents caring for them and working are more likely to have gender-neutral views throughout their lives.¹⁷³ Enabling women to balance family and work life more effectively in itself changes societal attitudes. Academics have attributed slowing progress in shifting attitudes towards women in the workplace in the 1990s in Australia and other countries to the evident difficulties women experience combining paid work with caring for young children.¹⁷⁴

¹⁶⁸ *The pursuit of gender equality: An uphill battle*, OECD, 2017.

¹⁶⁹ *State of Australia's fathers*, Save the Children Australia, September 2015.

¹⁷⁰ According to a recent study, women account for about one-fifth of sources directly quoted in news articles. See *Women for media report: An analysis of the gender balance of sources and experts across Australian metropolitan print media*, Women's Leadership Institute Australia, 2016.

¹⁷¹ Iris Bohnet and Jeni Klugman, *Behavioural insights and gender equality: The second VicHealth Leading Thinkers residency*, Victorian Health Promotion Foundation, 2017.

¹⁷² Susan Himmelweit and Maria Sigala, "Choice and the relationship between identities and behaviour for mothers with pre-school children: Some implications for policy from a UK study", *Journal of Social Policy*, volume 33, issue 3, July 2004; Matthijs Kalmijn, "Attitude alignment in marriage and cohabitation: The case of sex-role attitudes", *International Journal of Psychology*, volume 12, issue 4, December 2005; and Pia Schober and Jacqueline Scott, "Maternal employment and gender role attitudes: Dissonance among British men and women in the transition to parenthood", *Work, Employment and Society*, volume 26, issue 3, June 2012.

¹⁷³ Marie Evertsson, "The reproduction of gender: Housework and attitudes towards gender equality in the home among Swedish boys and girls", *The British Journal of Sociology*, volume 57, issue 3, September 2006.

¹⁷⁴ Marcel van Egmond et al., "A stalled revolution: Gender role attitudes in Australia, 1986–2005", *Journal of Population Research*, volume 27, issue 3, 2010.

5. Further strengthen existing institutions and policy action focused on gender

Accelerating change on gender inequality doesn't mean reinventing the wheel. By building on existing efforts, Australia is in a strong position to make real progress. The country already has institutions, partnerships, and expertise that can drive rapid progress towards gender parity (see Box 7, "Australia has strong institutions through which to drive progress on gender equality"). The challenge is to develop these institutions by further expanding participation in them, investing in them, and investigating a wider range of mechanisms that can enforce change. Three steps could potentially improve the effectiveness of existing institutions:

- **Expand participation in coalitions across sectors and geographies:** Male Champions of Change is viewed around the world as a prominent example of leaders across sectors and industries committing to sustained collaboration on gender and holding themselves accountable. Since its inception, the organisation has expanded and now includes 150 leaders in nine groups. A number of other cross-industry coalitions focus on male and female leadership, including South Australia's SA Chiefs for Gender Equity and Queensland's QLD Male Champions of Change. One way to amplify the impact of such coalitions is to expand participation to new sectors, geographies, and population segments (such as rural and remote employers). In addition, collaborative initiatives could focus more on engaging smaller organisations in addition to large ones—the approach taken by the *Chefsache* initiative in Germany.¹⁷⁵
- **Increase policy impact through gender budgeting and gender-impact analysis:** The Australian government has formalised its focus on gender through the Office for Women, whose remit is to cover a spectrum of gender inequality issues in work and society, including women's workforce participation. The organisation plays an important role coordinating across government, other organisations, and academia, and it regularly evaluates and reports on progress.¹⁷⁶ There is scope for expanding its role, undertaking more formal, data-based analysis to support development of the budget. In 2014, Australia was ranked last (equal to Slovakia) on gender-impact analysis requirements.¹⁷⁷ In Canada, the federal government incorporated gender equality indicators and goals into its core budget documents for the first time in 2017.¹⁷⁸ Australia has no formal gender budgeting process in place, although the Office for Women is already investigating opportunities to train policy makers.¹⁷⁹
- **Consider strengthening national mandates for employers, and encourage greater gathering and use of data to shape practices:** Australia is a world leader on mechanisms to drive gender transparency at a national level. The Australian Stock Exchange requires listed companies to report on gender balance, and WGEA requires reporting of male-female representation, pay, and flexible work policies for companies with more than 100 employees. WGEA also provides recognition for businesses committed to equality through its Employer of Choice programme. Next steps for WGEA might include adding age-disaggregated data to its collection so

¹⁷⁵ *Chefsache*, which translates as "CEO priority", was put in place in July 2015 under the leadership of the German chancellor. It is a group of 11 private-sector, government, media, and science and technology organisations, including McKinsey & Company, dedicated to driving change in social attitudes that influence whether women take leadership roles in business.

¹⁷⁶ There may even be scope for expanding this role, as recommended in Miranda Stewart, ed., *Tax, social policy and gender: Rethinking equality and efficiency*, Australian National University Press, 2017.

¹⁷⁷ Based on whether there are requirements for departments to conduct gender-impact assessments ex ante or ex post, and whether there is a requirement to undertake gender-responsive budgeting at a central level. See *Women, government and policy making in OECD countries: Fostering diversity for inclusive growth*, OECD, 2014.

¹⁷⁸ Miranda Stewart, ed., *Tax, social policy and gender: Rethinking equality and efficiency*, Australian National University Press, 2017.

¹⁷⁹ Ronnie Downes, Lisa von Trapp, and Scherie Nicol, "Gender budgeting in OECD countries", *OECD Journal on Budgeting*, volume 16, issue 3, OECD, 2017.

that it is easier to identify when men and women drop out of, and return to, the labour force, and how careers progress as a result of these decisions. Australia could also consider adopting the UK approach of publishing pay gaps within companies to create further transparency.¹⁸⁰ Australia could also monitor the impact of approaches in Germany and Iceland to increase enforcement of equality outcomes in terms of pay and representation, and consider introducing them if they prove effective. Germany has mandated 30 percent representation on boards, and Iceland requires companies to undergo certification that they have no like-for-like gender pay gap. In addition, the agency could introduce reporting for smaller organisations and public-sector organisations, and increase its sharing of best practices and encourage use of its resources. Only 27 percent of companies use the agency's support to help analyse and address their gender gaps.¹⁸¹

¹⁸⁰ These are currently not published, although they are reported in aggregate across industries.

¹⁸¹ Kristine Ziwick, *Did Australian business leaders just pledge not to violate the most basic equal pay principle, and we're happy about it?* Women's Agenda, August 28, 2017.

Box 7. Australia has strong institutions through which to drive progress on gender equality

Australia has a breadth of organisations that are driving progress on gender through a spectrum of activities. Here we share just a few examples:

- **Research and advocacy:** The Sex Discrimination Commission undertakes comprehensive research and advocacy efforts. For example, it recently released a report on sexual assault and sexual harassment at Australian universities, and it has conducted an inquiry into female labour-force participation through the Supporting Working Parents Review.¹ In addition, many academic and community groups perform research and advocacy. Some are focused on specific topics including, for instance, the Australian Women Against Violence Alliance, while others, such as the Women's Electoral Lobby, have a broader lens.
- **Convenorship and task forces:** Several groups focus on playing a convening role across government, industry, and community groups. For instance, the Council of Australian Governments has coordinated a national action plan on violence against women. The Committee for Economic Development of Australia holds women in leadership events to bring together thought leaders, and the National Council of Women of Australia coordinates with many community women's organisations.
- **Training, tools, and resources:** Significant support is available for individual women and companies. Chief Executive Women provides leadership and professional development programmes targeted at women as well as scholarships, and the Pathways to Politics Program set up by the Women's Leadership Institute Australia provides support and encouragement to women who aspire to elected office. The Recruit Smarter initiative by the government of Victoria works on ways to reduce gender bias in recruitment, and software is available to help companies reduce bias in recruitment.
- **Recognition and awards:** Programmes such as the Telstra Business Women's Awards help lift the profile of women in business.

¹ *Change the course: National report on sexual assault and sexual harassment at Australian universities*, Australian Human Rights Commission, 2017.



Australia is relatively advanced along the path to gender equality, and it has a strong foundation of gender equality in society. But a significant economic opportunity is within reach if it does more to accelerate progress towards a world in which men and women are equal partners in care and paid work, boys and girls grow up believing that parenthood and career are both valuable and compatible, and true diversity in the education system and among business and political leaders empowers every individual to take a unique path. Australia has already demonstrated innovation and determination to tackle these complex issues in organisations such as Male Champions of Change and WGEA. The stage is set for travelling all the way to gender parity, but achieving this ultimate goal will require concerted action on the part of governments, corporations, and partnerships of both to improve financial incentives for women to work for pay, improve the provision and uptake of supportive workplace policies, and challenge entrenched beliefs on gender roles in society.



3. CHINA

By virtue of its sheer size, China's progress towards gender parity is of enormous importance because of the many millions of women who would benefit. China has the largest female population in the world—671.2 million women who represent 49 percent of the country's population and 18 percent of all the women in the world.

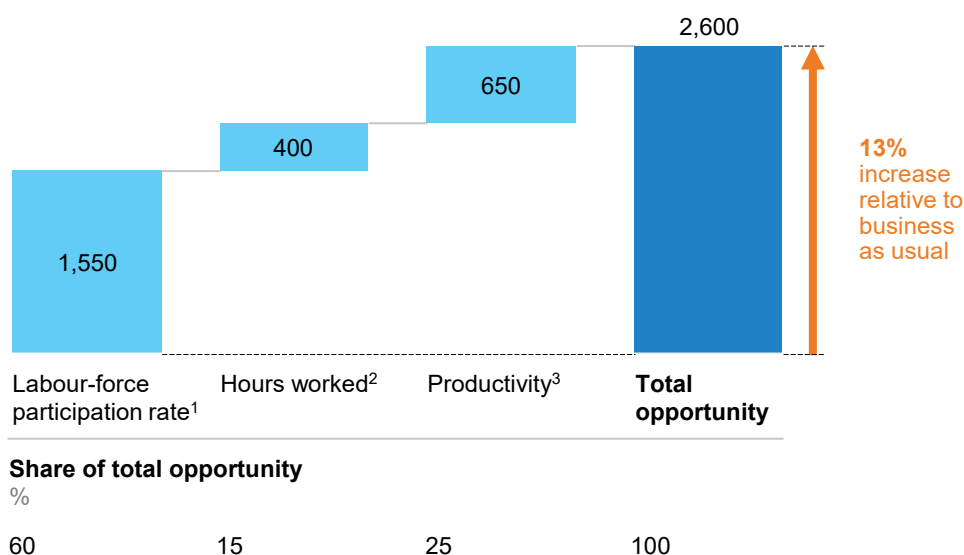
Although China is further along in its journey towards gender parity in work than the Asia Pacific average, it does not match the best in region. Its progress on gender equality in society is in line with the regional average, but it has significant scope to do more—and reap the economic benefits. China could add \$2.6 trillion in annual GDP above business-as-usual GDP by 2025 in MGI's best-in-region scenario, the largest opportunity in absolute terms of any country in the region, and the equivalent of adding an economy the current size of France in 2025. Of the three drivers of additional growth from the pursuit of gender equality in work, raising the labour-market participation of women makes by far the largest contribution at 60 percent, with 15 percent coming from increasing the hours women work and a further 25 percent from changing the sector mix so that more women are employed in higher-productivity jobs (Exhibit 19).

Exhibit 19

China could add \$2.6 trillion to annual GDP by 2025—13 percent above business as usual

Incremental 2025 GDP from improving gender equality in the best-in-region scenario, relative to the business-as-usual scenario

\$ billion, in 2014 dollars



1 Implies female labour-force participation rate increasing from 63% in 2014 to 69% in the 2025 best-in-region scenario.

2 Implies full-time equivalent rate for females increasing from 95% in 2014 to 69% in the 2025 best-in-region scenario.

3 Implies weighted productivity for females increasing from \$13,000 in 2014 to \$29,000 in the 2025 best-in-region scenario.

NOTE: Numbers may not sum due to rounding.

SOURCE: McKinsey Global Institute analysis



China



GDP opportunity from advancing women's equality¹

\$2.6 trillion

added to annual GDP by 2025

or **13%**

over business-as-usual GDP by 2025



Gender inequality today²

Level of gender inequality

Extremely high
0 – 0.50

High
0.50 – 0.75

Medium
0.75 – 0.95

Low
0.95 – 1.00

China

Asia Pacific best

Asia Pacific average

Global best

Gender equality in work

0.51

0.73

0.44

0.73

Gender equality in society



Essential services and enablers of economic opportunity

0.93

0.96

0.85

0.97



Legal protection and political voice

0.37

0.66

0.32

0.84



Physical security and autonomy

0.89

0.96

0.82

0.97



Potential measures to capture the GDP opportunity

Government



Mandate minimum paternity leave, and encourage uptake



Increase childcare subsidies, and improve auditing and enforcement of quality standards in childcare sector



Stimulate increased options for elderly care and mandate carers' leave



Encourage and enforce equal treatment of women in the workplace (e.g., equal retirement age and greater enforcement of non-discrimination laws)



Increase transparency of women in leadership in business and politics

Companies



Encourage and implement family-friendly work practices (e.g., remote and flexible working)



Develop women's entrepreneurial and digital skills and networks, particularly in rural areas

1 GDP opportunity in scenario where all countries match their best-in-region country in progress towards gender parity.

2 GPS scores are made up of 15 indicators of gender equality in work and society, weighted equally. GPS runs from

0 (no gender equality) to 1.0 (parity); for instance, a 0.95 ratio represents 5% distance from gender parity.

SOURCE: McKinsey Global Institute analysis

In this discussion, we consider China's performance on gender equality indicators at both the national and regional levels and look in detail at two key areas: women's entrepreneurship in the e-commerce and technology sectors, which today is a strength on which China can build and be an inspiration to the world; and unpaid care work, which is currently a pronounced weakness. The share of unpaid care work undertaken by women could rise if China's fertility rate recovers as expected over the longer term, at the same time that the number of elderly is swelling—a combination of trends that suggests even more pressure on women to take on caring roles in the home.

CHINA'S PROGRESS TOWARDS GENDER PARITY IS ABOVE THE REGIONAL AVERAGE, BUT THE COUNTRY HAS A LONG WAY TO GO

China has an above-average position on indicators of gender parity in work, particularly on its female-to-male labour-force participation ratio and the presence of women in professional and technical jobs. Nevertheless, on both indicators, it lags behind the best in region. China also has room to improve on the share of women in leadership positions and their share of unpaid care work. China's position on the three dimensions of gender equality in society is in line with, or better than, the regional average but behind the best in region. China is best in region on unmet need for family planning and near best in region on female-to-male ratio of educational attainment and child marriage (Exhibit 20). However, in common with many countries around the world, China has large gender gaps on political representation. It also has a sex ratio at birth that is heavily skewed towards male children, potentially a legacy of the one-child policy.¹⁸² This could shift as China transitions to a two-child policy.¹⁸³ There are regional variations (see Box 8, "Patterns of gender inequality vary among China's regions").

¹⁸² Recent data suggest that the number of births may be higher than official numbers because of underreporting in rural areas. See Yaojiang Shi and John James Kennedy, "Delayed registration and identifying the 'missing girls' in China", *The China Quarterly*, volume 228, December 2016. China's sex ratio at birth, in part, results from China's one-child policy instituted in 1979. China's male-to-female sex ratio at birth is the highest at the world at 1.16—for every 100 girls born, there are 116 boys, which is far higher than the biologically normal range of 101 to 106. See *Preventing gender biased sex selection, An interagency statement*, Office of the High Commissioner for Human Rights, UNFPA, UNICEF, UN Women, and the World Health Organization, 2011.

¹⁸³ From January 2016, all families can have two children, which should lead to an improvement in the sex ratio at birth, but will need continual monitoring and improved data collection to enable this. However, in 2017, the number of births in China was lower than in 2016 despite the relaxation of the one-child policy, although projections still point to an increase in the fertility rate reflecting the shift to a two-child policy. See Tom Hancock, "China births fall despite relaxation of one-child policy", *Financial Times*, January 18, 2018.

Exhibit 20

China has low gender inequality on four out of 15 indicators but has high or extremely high gender inequality on six

Level of gender inequality ■ Extremely high ■ High ■ Medium ■ Low

	China	Asia Pacific best	Asia Pacific average ¹	Global best
Gender equality in work	0.51	0.73	0.44	0.73
Labour-force participation rate F/M ratio	0.81	0.93	0.60	1.00
Professional and technical jobs F/M ratio	1.07	1.42	0.95	2.66
Perceived wage gap for similar work F/M ratio	0.59	0.78	0.56	0.86
Leadership positions F/M ratio	0.20	0.96	0.25	1.13
Unpaid care work M/F ratio	0.39	0.58	0.25	0.85
Gender equality in society				
Essential services and enablers of economic opportunity	0.93	0.96	0.85	0.97
Unmet need for family planning % of women	4	4	10	4
Maternal mortality Per 100,000 births	27	5	102	3
Education level F/M ratio	0.97	1.00	0.92	1.00
Financial inclusion F/M ratio	0.87	1.00	0.76	1.00
Digital inclusion F/M ratio	No data	1.00	0.77	1.00
Legal protection and political voice	0.37	0.66	0.32	0.84
Legal protection index	0.58	1.00	0.47	1.00
Political representation F/M ratio	0.20	0.55	0.19	0.93
Physical security and autonomy	0.89	0.96	0.82	0.97
Sex ratio at birth M/F ratio	1.16	1.03	1.11	1.02
Child marriage % of girls and young women	3	0	14	0
Violence against women % of women	15	14	28	6

¹ Weighted average based on 2016 female population.

SOURCE: McKinsey Global Institute analysis

China's social and political history has helped to shape its varied progress towards parity—both positively and negatively. In the pre-Communist era, it was a strongly patriarchal, Confucian-influenced society.¹⁸⁴ This is arguably reflected today in large gender gaps in leading roles in business and politics, the unequal sharing of unpaid care work in the home, and sex ratio at birth, with many more boys born than girls, partly a reflection of the legacy of the one-child policy.¹⁸⁵ Under Communism, however, Mao Zedong famously stated that “women hold up half the sky”, and the government and the public sector were strongly committed to implementing policies that promoted gender equality.¹⁸⁶ Women entered the workforce in large numbers.¹⁸⁷ Even today, China's rate of female labour-market participation is high compared with the rest of the world, at 63 percent.¹⁸⁸

The relative strength of China's overall performance may also reflect robust economic growth. Around the globe, the correlation is clear between women's advancement, particularly on dimensions of gender equality in society, and growth in per capita GDP. For China, this has particularly been the case for indicators related to health and education.

However, despite robust GDP growth of 7.3 percent a year over the past five years, progress on narrowing gender gaps has been patchy. Some aspects of gender inequality have improved, while others have slipped backwards. For instance, gender inequality on two indicators—female-male labour-force participation ratio and perceived wage gap—has increased marginally, while China's performance on maternal mortality and tertiary education has improved.¹⁸⁹ As discussed in the overview of this report, economic growth alone will not be sufficient to improve gender equality. Specific measures will be necessary to accelerate progress towards parity, including a concerted effort to shift strongly traditional views among a majority of men and women about the gender split of paid formal work and unpaid domestic work.¹⁹⁰

¹⁸⁴ Jinghao Zhou, “Keys to women's liberation in Communist China: An historical overview”, *Journal of International Women's Studies*, volume 5, issue 1, November 2003.

¹⁸⁵ A great deal of research has been published on China's “missing women” focused on the impact of sex-selective abortion both on China's population growth and on sex ratio at birth. See, for instance, Therese Hesketh and Zhu Wei Xing, “The effect of China's one-child family policy after 25 years”, *The New England Journal of Medicine*, volume 353, number 11, September 15, 2005. Some research has highlighted a positive impact in the form of higher investment in only daughters. See, for instance, Jane Golley and Rod Tyers, “Gender ‘rebalancing’ in China”, *Asian Population Studies*, volume 10, issue 2, 2014; and Vanessa L. Fong, “China's one-child policy and the empowerment of urban daughters”, *American Anthropologist*, volume 104, issue 4, 2002.

¹⁸⁶ J. Klugman and L. Wang, *How women have fared in the labour market with China's rise as a global economic power*, UNHLP background brief, 2016, cited in *Leave no one behind: A call to action for gender equality and women's economic empowerment*, Report of the UN Secretary-General's High-Level Panel on Women's Economic Empowerment, 2016.

¹⁸⁷ Many observers have pointed to Communism as having empowered women, but the picture is complex (and beyond the scope of this short chapter). For further discussion, see Wang Zheng, *Finding women in the state: A socialist feminist revolution in the People's Republic of China, 1949-1964*, University of California Press, 2016; Isabelle Attané, “Being a woman in China today: A demography of gender”, *China Perspectives*, 2012/4, 2012; and Helen Gao, “How did women fare in China's Communist revolution?” *The New York Times*, September 25, 2017.

¹⁸⁸ China's labour-force participation rate for women aged 15 and above was 63 percent in 2016, ranking the nation eighth out of the 95 countries in MGI's GPS analysis on this indicator.

¹⁸⁹ Parity in the perceived wage gap declined by 5 percent and the female-to-male ratio of labour-force participation by 0.01 over a five year period. Maternal mortality has fallen by 8 for every 100,000 births, and the female-to-male ratio of gross tertiary enrolment increased by 0.09.

¹⁹⁰ The percentage of men and women who agreed with the statement “Men are turned towards society, women devote themselves to their family” increased by 4.4 percentage points for women, to 54.8 percent, and 7.7 percentage points for men, to 61.6 percent, between the 2000 and 2010 national census surveys. In the World Values Survey, 38 percent of Chinese respondents were more likely to accept gender-specific roles in work, agreeing with the statement “When jobs are scarce, men should have more right to a job than women”. This compares with 30 percent in Japan and 32 percent in South Korea.

Box 8. Patterns of gender inequality vary among China's regions

We examined four indicators for which data were available at the provincial level. China's more developed provinces generally have higher scores on indicators related to educational attainment, maternal care, and professional and technical jobs (Exhibit 21).¹ There are some exceptions to this general pattern, most notably that the labour-force participation metric does not seem to follow this trend. For instance, some of China's provinces with the lowest incomes outperform relatively high-income Shanghai on the range of metrics shown here, particularly on the female-to-male ratio of labour-force participation and maternal care. Similarly, the best performer on women's representation in professional and technical jobs is Xinjiang, a medium-low-income province that does, however, perform strongly on education.

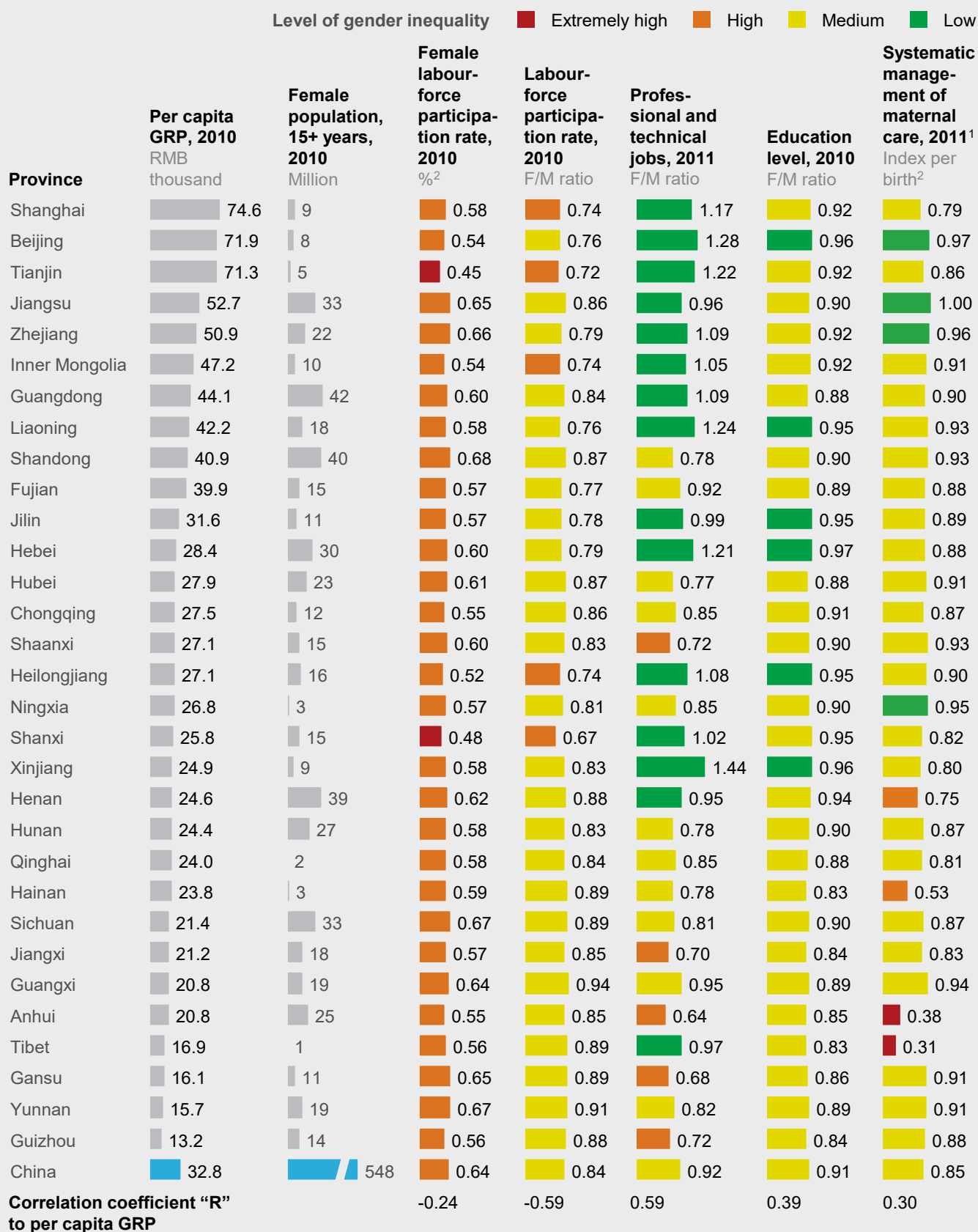
One interesting point to note is that China's more developed provinces tend to have lower female-to-male labour-force participation ratios. This may reflect the fact that, as families become more prosperous, the economic necessity of women working diminishes, which reduces female labour-force participation and, in turn, the female-to-male participation ratio. It is notable that female labour-force participation in China's relatively prosperous urban areas was 19 percentage points lower than in lower-income rural areas in 2010, and that ratio has declined by five percentage points since 2005 while that of rural areas remained constant at 78 percent. This could imply that China's female labour-force participation rate may decline as the country develops, although certain economic models suggest that the rate should then rise again.² Another consideration for China is the impact of rapid urbanisation, and in particular the fact that 66 percent of migrant workers are male, which may be increasing the pressure on women to work in rural areas or less developed provinces.³

¹ Provincial data shown are based on best available data on gender equality indicators, which were largely sourced from 2010 census data. See *Women and men in China—facts and figures 2012*, UNICEF, 2014. More provincial-level data on a range of indicators would be beneficial.

² Globally, there is a relationship between per capita GDP and female labour-force participation rates: typically, participation decreases as an economy develops and then rises when the economy is in an advanced stage of economic development, and women's education rises along with their earning potential, incentivising them to work in the market economy—a U curve. See Claudia Goldin, "The U-shaped female labor force function in economic development and economic history", in T. Paul Schultz, ed., *Investment in women's human capital*, University of Chicago Press, 1995. Also see Exhibit 8 in *The power of parity: How advancing women's equality can add \$12 trillion to global growth*, McKinsey Global Institute, September 2015.

³ National Bureau of Statistics of the People's Republic of China, *2016 migrant workers monitoring survey report*, 2017 (http://www.stats.gov.cn/tjsj/zxfb/201704/20170428_1489334.html).

Among China's provinces, scores on the indicators vary widely



1 Mothers who receive early prenatal care within 28 days after pregnancy, at least 5 antenatal care visits, scientific delivery, and postnatal visits per 100 live births.

2 Index so that 1 = 100%.

SOURCE: 2010 National Census in Men and Women in China Facts and Figures 2012 (latest available data at provincial level); World Bank GDP data 2010; McKinsey Global Institute analysis

CHINA CAN BUILD ON ITS EMERGING STRENGTH IN FEMALE E-COMMERCE AND TECHNOLOGY ENTREPRENEURSHIP

As well as having one of the highest female labour-force participation rates in the world, and more women than men in professional and technical jobs, China also has a solid base of powerful female entrepreneurs in its dynamic e-commerce industry and in technological fields.¹⁹¹ China is home to 114 of the world's 147 self-made female billionaires; the United States is second with 14. China also has the highest ratio of female-to-male self-made billionaires in the world, 0.22, with the United Kingdom in second place at 0.15.¹⁹²

Women's representation in the e-commerce and technology sectors is relatively strong. A 2015 Chinese government white paper on gender equality and women's development reported that about 55 percent of new internet businesses are being founded by women.¹⁹³ Data from Alibaba's Taobao platform indicate that 49.4 percent of individual Tmall store owners are female, and female-owned stores account for 46.7 percent of total sales.¹⁹⁴ Data from Global Entrepreneurship Monitor indicate that China has one of the highest female-to-male ratios of information and communications technology (ICT) entrepreneurs in the world at 1.22 (fifth out of 60), compared with a global average of 0.43 and a regional average of 0.48. We note that there is evidence of sexism in China's tech industry with men-only job advertisements, and reports of women being hired on the basis of their looks. Clearly, such practices and attitudes need to be tackled if women are to fulfill their potential in these sectors.

Beyond the e-commerce and technology sectors, female entrepreneurship in China does not stand out as much. In 2016–17, China's female-to-male ratio for all early-stage owners was 0.73, only marginally above the global average of 0.71, and below the regional average of 0.91 (Exhibit 22).

The female-to-male ratio of owners of established businesses, at 0.80, is above the global average of 0.61 and in line with the regional average of 0.81. It is interesting to note that China also has relatively fewer female entrepreneurs overall as a proportion of the adult working-age population (aged 18 to 64) than other nations; 8.60 percent of adult working-age females were early-stage entrepreneurs, below the global average of 10.97 percent and the Asia Pacific average of 11.53 percent.¹⁹⁵ The share of established female business owners was 6.4 percent, in line with the global average but below the regional average of 10.82 percent.¹⁹⁶

¹⁹¹ We define e-commerce as commercial transactions conducted on the internet, often using large marketplace platforms, and technology as digital technology, including information and communications technologies.

¹⁹² 2017 Hurun Global List data as of January 2018; the female-to-male ratio considers only countries with more than one female billionaire.

¹⁹³ *Gender equality and women's development in China*, The State Council of the People's Republic of China, September 2015.

¹⁹⁴ *Analysis of female consumption, entrepreneurship and financial needs in the great Taobao ecosystem*, AliResearch, 2016.

¹⁹⁵ The percentage of adults aged between 18 and 64 who are in the process of starting a business or are the owner/manager of a new business that is less than 42 months old. See *GEM 2016/2017 global report*, Global Entrepreneurship Monitor, 2017.

¹⁹⁶ The share of adults aged between 18 to 64 who have been an owner/manager of an established business for more than 42 months. See *GEM 2016/2017 global report*, Global Entrepreneurship Monitor, 2017.

Exhibit 22

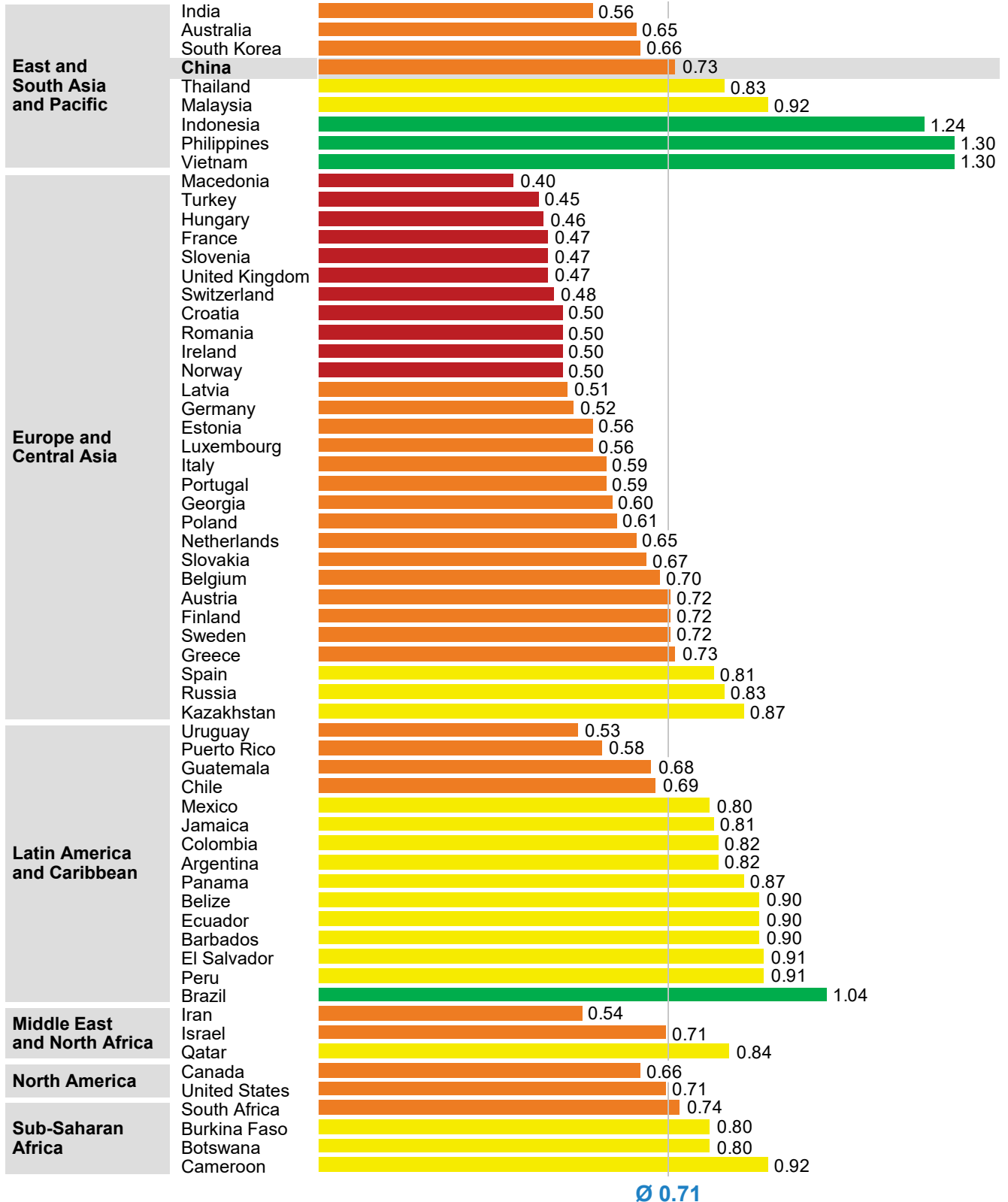
China’s female-to-male early-stage entrepreneurs ratio is marginally above the global average but below leading nations in Asia Pacific

Female-to-male total early-stage entrepreneurial activity (TEA)¹

F/M ratio of female and male TEA as % of adult female and male working-age population (18–64)

Level of gender inequality

Extremely high High Medium Low



1 Percentage of adult population aged 18–64 who are in the process of starting a business or owner/manager of a new business less than 42 months old.

SOURCE: Global Entrepreneurship Monitor 2016/17; McKinsey Global Institute analysis

A number of factors may explain the relative success of female entrepreneurs in e-commerce and technology in China, including:

- **Access to new business models or markets:** This is arguably the largest difference between offline and online business sectors in terms of opportunities available to women. Men with strong established positions have traditionally dominated offline businesses, which has made competing more difficult for women business owners.¹⁹⁷ In contrast, e-commerce and technology businesses are creating new business models and markets that are enabling new players, including female business owners, to enter the market.¹⁹⁸ One of China's most famous self-made billionaires is Zhou Qunfei, whose business supplies screens for Apple and Samsung smartphones.¹⁹⁹
- **Access to finance and lower finance requirements:** Globally, one of the largest barriers facing women wanting to start a business is obtaining financing. Women typically have less collateral than men.²⁰⁰ However, startup costs in the e-commerce and technology sectors can be far lower than in traditional businesses, and this could unlock opportunity for women. In a 2015 report, Alibaba stated that starting a Tmall store typically costs 210,000 renminbi, 94 percent less than setting up an offline business.²⁰¹ China's growing investment in digital technologies may also create further opportunities for women. For example, China's venture capital sector has grown rapidly, from just \$12 billion, or 6 percent of the global total, in 2011–13 to \$77 billion, or 19 percent of the global total, in 2014–16, with much of the investment focused on digital technologies. However, there is still evidence of gender bias among venture capital investors, with some reluctant to invest in companies run by women.²⁰²
- **Support networks and supporting societal views:** An increasing number of female incubators and female-led venture capital firms are focused on women in tech. TechBase is China's first technology incubator for women.²⁰³ Beijing-based H Capital is the largest venture capital fund ever raised by a woman.²⁰⁴ Support for entrepreneurship in China may also be helping. Research finds that general support for entrepreneurs has a positive impact on the number of female entrepreneurs.²⁰⁵ Indicators of general support in China are quite high. For example, China ranks fourth out of 64 countries for media attention to entrepreneurship.²⁰⁶ Research also suggests that similar groups,

¹⁹⁷ Aladdin D. Rillo and Valdimir dela Cruz, *The development dimension of e-commerce in Asia: Opportunities and challenges*, ADB Institute policy brief number 2016-2, June 2016.

¹⁹⁸ MGI research on digitisation in China highlights the fact that digital forces can shift (and create) between 10 and 45 percent of the industry revenue pool across players by 2030, with disruption forecast to occur on a larger scale in China due to a combination of rapid economic growth and changes in the economy, the prevalence of inefficiency across sectors, and massive potential for commercialisation at scale. See *Digital China: Powering the economy to global competitiveness*, McKinsey Global Institute, December 2017.

¹⁹⁹ David Barboza, "How a Chinese billionaire built her fortune", *The New York Times*, July 30, 2015.

²⁰⁰ David Halabisky, *5 ways policy could close the gender gap in entrepreneurship*, World Economic Forum, October 19, 2017.

²⁰¹ *Women in the era of Internet Plus*, AliResearch, 2015.

²⁰² Eva Xiao, *Chinese VC: We don't invest in female CEOs*, Tech in Asia, January 9, 2017.

²⁰³ Wang Xiaonan, *1st tech incubator for Chinese women boosts 'She-Economy'*, All-China Women's Federation, December 15, 2015.

²⁰⁴ Shai Oster and Selina Wang, *How women won a leading role in China's venture capital industry*, Bloomberg Technology, September 19, 2016.

²⁰⁵ C. Christopher Baughn, Bee-Leng Chua, and Kent E. Neupert, "The normative context for women's participation in entrepreneurship: A multicountry study", *Entrepreneurship Theory and Practice*, volume 30, issue 5, 2006.

²⁰⁶ *GEM 2016/17 Women's entrepreneurship report*, Global Entrepreneurship Monitor, 2017.

including those of the same gender, are more likely to hire, or create opportunities for, each other.²⁰⁷

- **Digital sectors leverage a highly educated and increasingly global female population:** A higher proportion of women than men in China are now educated to the tertiary level. In 2015, the female-to-male ratio of tertiary enrolment was 1.18, and the female gross enrolment rate was 47 percent, seven percentage points higher than the male rate of 40 percent. Digitally based industries and business models rely on and leverage an educated workforce, in comparison with traditional industries that typically use unskilled and less educated labour. The rapid expansion and scale of the Chinese market is providing greater opportunities for the country's highly educated female workforce. Furthermore, China has seen a huge increase in the number of students studying overseas. The tally tripled between 2008 and 2016 to a total of almost 550,000, the largest number of foreign students of any country in the world. It is estimated that 80 percent of these students return to China to work, bringing with them skills and expertise that benefit their home country.²⁰⁸ Given the higher proportion of women enrolled in tertiary education, many of these returning students are female, and they can use their experience to forge new networks and develop business ideas that may not already exist in China.
- **Flexibility and autonomy:** By their nature, e-commerce and technology-based businesses tend to offer more flexibility and autonomy, which can help women to overcome the challenge of balancing home responsibilities and work. MGI's study on independent work found that those who choose to work independently, including those selling items on Amazon and providing services on digital platforms, do so because of the flexibility and autonomy this gives them.²⁰⁹ This also appears to be the case on Alibaba's Taobao platform.²¹⁰

UNEQUAL SHARING OF UNPAID CARE WORK IS ALREADY CHALLENGING MANY WOMEN; DEMOGRAPHIC SHIFTS ARE LIKELY TO CREATE FURTHER PRESSURE

The sharing of unpaid care work is modestly more equal in China than the Asia Pacific average, but still substantially less equal than in Australia, New Zealand, and Thailand. In China, women undertake around 2.5 times more unpaid care work than men, spending around 27 hours a week on these duties, compared with an average of 11 hours for men, according to a time-use survey published in 2008.²¹¹ Female unpaid care work could be worth as much as 6.8 trillion renminbi (\$1 trillion) or 9 percent of 2016 GDP.²¹² On average, Chinese women aged 15 to 64 spend 525 minutes working each day, only 55 percent of which is paid work. This total is fourth in a 29-country sample, behind only India, Mexico, and Portugal. Chinese women therefore work a “double shift”—doing almost as much

²⁰⁷ Homophily-influenced hiring and mentoring may partly explain why males tend to be hired more than females and receive more funding. See Paul A. Gompers and Sophie Q. Wang, *Diversity in innovation*, Harvard Business School working paper 17-067, January 2017. However, this may be more nuanced than purely gender bias and related to “in-group” preference, a phenomenon of genders as well as other distinctive groups. Katherine B. Coffman, Christine L. Exley, and Muriel Niederle, *When gender discrimination is not about gender*, Harvard Business School working paper 18-054, December 2017.

²⁰⁸ Luo Wangshu, “More Chinese set to study overseas”, *China Daily*, March 8, 2017.

²⁰⁹ *Independent work: Choice, necessity, and the gig economy*, McKinsey Global Institute, October 2016.

²¹⁰ J. Klugman and L. Wang, *How women have fared in the labour market with China's rise as a global economic power*, UNHLP background brief, 2016, cited in *Leave no one behind: A call to action for gender equality and women's economic empowerment*, Report of the UN Secretary-General's High-Level Panel on Women's Economic Empowerment, 2016.

²¹¹ OECD gender data portal 2016, based on ages 15 to 64; latest survey data for China is from 2008.

²¹² Our estimate uses the replacement cost minimum wage method, which multiplies the average time spent per person by the population and then by the minimum wage; it is more conservative than other estimates. One study put the total value at between 7.7 trillion and 9.7 trillion renminbi. See Xiao-yuan Dong and Xinli An, “Gender patterns and value of unpaid care work: Findings from China's first large-scale time use survey”, *The Review of Income and Wealth*, volume 61, issue 3, September 2015.

unpaid work as paid work and in total working 44 minutes per day more than men, which equates to five hours additional work per week, or the equivalent of almost one extra day of work per week.²¹³

One important component of unpaid care work is caring for household members. Women in China engage in this activity around 2.5 times more than men, spending almost four hours a week, compared with men's 1.5 hours. Breaking down the various components of unpaid care work undertaken by women, 66 percent is spent on routine housework and 14 percent on caring for relatives. Now Chinese women face a significant demographic challenge: as the population ages, the pressure to care for elderly relatives is likely to increase. Moreover, as the country shifts from a one-child policy to a two-child policy, fertility rates may rise over the longer term, and new mothers may also be spending more time caring for children.

The more time women spend on these responsibilities, the more challenging it is for them to find the time for paid work. MGI's global research found that disproportionate sharing of unpaid care work is highly correlated with the ability of women to participate in the labour force and is moderately correlated with the likelihood that they will assume leadership roles and professional and technical jobs.²¹⁴

China's population is aging significantly, and this will undoubtedly increase time spent on caring for the elderly

The number of people aged 75 and over in China is projected to rise from 49 million in 2016 to 133 million in 2040, an increase of 172 percent.²¹⁵ China's elderly-care ratio (the relationship between the population aged above 75, weighted by care needs, to the working-age population) is projected to be 3.4 times its 2010 value in 2040 (Exhibit 23).²¹⁶

Women and men currently spend on average of 0.2 hour per week on adult (elderly) care.²¹⁷ Overall, as the number of elderly people in China rises, our analysis suggests that a conservative estimate of the increase in the average time spent by women caring for the elderly at home by 2040 is at least 0.5 hour, from 0.2 hour a week to between 0.7 and one hour a week. In the case of men, that figure could rise to 0.4 to 0.7 hour a week depending on how adult (elderly) care is shared.²¹⁸ We note that this analysis does not factor in the future impact of new technology on care or household work.

²¹³ The decision to undertake more unpaid work is a personal one. This chapter highlights the challenges and opportunities for women who want to spend more of their time on paid work.

²¹⁴ *The power of parity: How advancing women's equality can add \$12 trillion to global growth*, McKinsey Global Institute, September 2015.

²¹⁵ World Bank population estimates and projections, November 2017.

²¹⁶ We have weighted the care needs of 75- to 79-year-olds as half of the needs of 80-year-olds, based on the approach taken by Debbie Budlender, "What do time use studies tell us about unpaid care work? Evidence from seven countries", Chapter 1 in *Time use studies and unpaid care work*, United Nations Research Institute for Social Development, 2010.

²¹⁷ Data from Xiao-yuan Dong and Xinli An, "Gender patterns and value of unpaid care work: Findings from China's first large-scale time use survey", *The Review of Income and Wealth*, volume 61, issue 3, September 2015. We used the same data set but adjusted for ages 15 to 74 reflecting potential carers' age group.

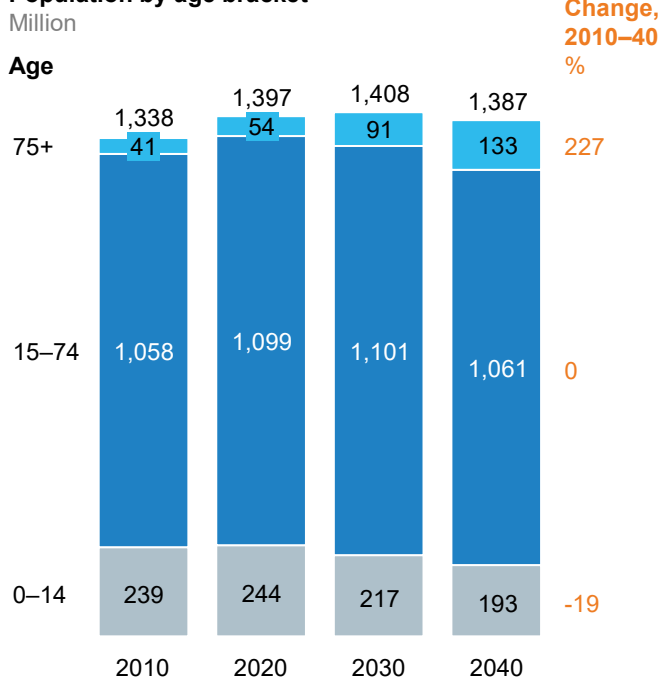
²¹⁸ We calculated the additional time spent caring for the elderly by assuming a proportional increase in time spent caring for the elderly to the elderly-care ratio of potential carers in a population aged 15 to 74 to those requiring care aged 75-plus. When calculating the elderly-care ratio, we weighted those aged 75 to 79 by 0.5, and those aged 80-plus by 1.0 to reflect the different care needs of these groups. Data were drawn from 2008 time-use survey data available from the OECD in Xiao-yuan Dong and Xinli An, "Gender patterns and value of unpaid care work: Findings from China's first large-scale time use survey", *The Review of Income and Wealth*, volume 61, issue 3, September 2015. We adapted our elderly-care ratio methodology from Debbie Budlender using different age ranges for the weighting to fit with available estimates and projections from World Bank population statistics. See Debbie Budlender, "What do time use studies tell us about unpaid care work? Evidence from seven countries", in *Time use studies and unpaid care work*, United Nations Research Institute for Social Development, 2010; and *Population estimates and projections*, World Bank (<https://datacatalog.worldbank.org/dataset/population-estimates-and-projections>). In determining the split of the increased hours between men and women, our range shows two scenarios: (1) when adult (elderly) care is shared evenly as it currently is, and (2) when it is shared in the same proportion as childcare, in which women do 2.5 times more than men. These estimates also do not take into account any additional outsourcing of adult (elderly) care that could happen as the sector grows.

As we discuss in Chapter 1, greater gender diversity in leadership roles in companies is linked with enhanced financial performance; if the amount of time Chinese women spend on unpaid care work increases and their ability to assume leading roles in business diminishes, there may be a further economic cost. Potentially, an additional 262 billion renminbi (\$39 billion in 2016 dollars) of economic value could be lost due to an increase in care for the elderly alone.

Exhibit 23

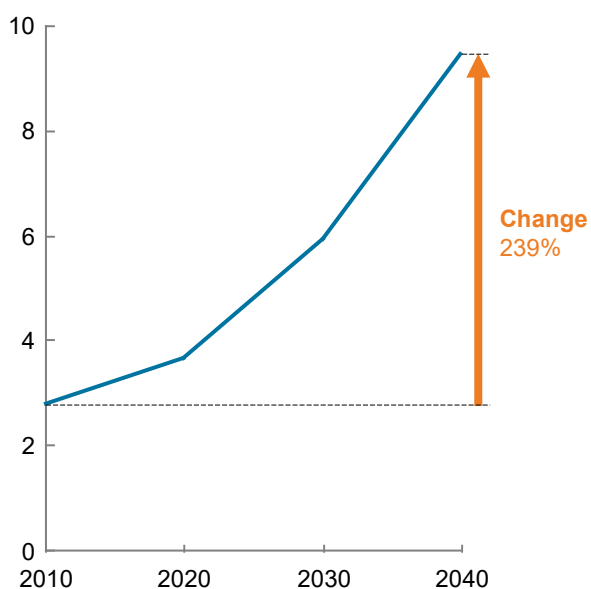
China's elderly population is projected to more than triple by 2040, implying higher demand for care for the elderly

Population by age bracket



Elderly-care ratio

Needs-weighted ratio of elderly (75+) to potential caregivers (15-74), %¹



¹ Weights population of 75+ age group to reflect different levels of care needed on average; population 75-79 is weighted by 0.5, population 80+ is weighted by 1 to every person aged 15-74. This weighting is based on the approach taken by Budlender (2010).

SOURCE: World Bank; Debbie Budlender, "What do time use studies tell us about unpaid care work? Evidence from seven countries", Chapter 1 in *Time use studies and unpaid care work*, United Nations Research Institute for Social Development, 2010; McKinsey Global Institute analysis

If China's fertility rate bounces back after the ending of the one-child policy, women could spend more time caring for dependent children

Women currently take on 2.5 times the childcare that men do, spending 3.6 hours a week on average compared with 1.3 hours. If fertility rates increase, reflecting China's shift from a one-child to a two-child policy, the hours that women spend are likely to increase. China's fertility rate is projected to increase from 1.62 in 2016 to 1.73 in 2040, indicating that women who have two children will outnumber those who have one.²¹⁹ Our analysis conservatively suggests that the average time women spend looking after dependent children each week could rise by a minimum of 20 minutes.

²¹⁹ This time estimate was not included in our calculation of the incremental cost of increasing unpaid care work as there is no appropriate baseline for those with dependent children aged from birth to 14. Our calculation of the increased time spent on childcare uses the fertility rate (average number of children per woman of child-rearing age) and average time spent per women on childcare. This leads to a conservative estimate, as the time spent on childcare per women is based on the 15-to-74 age range, and not all women in this age range have dependent children. We used World Bank population estimates and projections (<https://datacatalog.worldbank.org/dataset/population-estimates-and-projections>).

CHINA COULD PRIORITISE FOUR AREAS TO UNLOCK RENEWED PROGRESS TOWARDS GENDER PARITY

After years of sizzling growth, China is now ranked an upper-middle-income economy by the World Bank, but there are significant challenges ahead, not least an aging population and the prospect of peak employment coming as soon as 2024.²²⁰ A productivity-led model is needed to counteract a plateauing workforce and create sustainable jobs even in the face of sweeping automation. Ensuring that women have equal opportunities in education and in the labour market can further strengthen China's talent base. Yet China's progress towards the ultimate goal of gender parity has stagnated in recent years, and action by governments and companies will be necessary to kick-start renewed advances. We suggest four areas on which to focus to unleash the full power of women in the economy.²²¹

1. Increase opportunities for women to reduce time spent on unpaid work

We see two main thrusts in any effort to reduce the share of unpaid care work undertaken by women in China. First, China can encourage and enable men to undertake a greater share of such work. Second, China could adopt a number of measures that could reduce some of the time women (and men) spend caring for children and elderly relatives.

- **Provide subsidised childcare for children from birth to age five (pre-school):** If, as expected, more women have two children over the longer term, the total cost of formal childcare will rise, creating a disincentive to take up such provision in order to return to work. Several leading party members and government officials have suggested subsidising childcare in these cases.²²² Some researchers have highlighted the link between China's historical public provision of childcare through state-sector work units and higher female labour-force participation rates, suggesting a need to return to some form of public provision.²²³ Sweden's EduCare childcare system is widely regarded as best in class. Childcare attracts subsidies proportional to income, and up to 15 hours free per week for children aged three to six, not only enabling mothers and fathers to work but also providing high-quality education.²²⁴ Employees and provincial governments would need to consider the cost-benefit trade-off of increasing the share of working parents and societal benefits such as education compared with public subsidies.
- **Improve auditing and enforcement of childcare regulatory standards to ensure quality care:** The pre-school and childcare industry in China has been growing, with increasing private provision. Some privately run facilities have faced a number of highly publicised allegations of abuse and malpractice.²²⁵ This suggests that better enforcing and auditing of standards may be required to give children more protection and parents more confidence. An aggregated website with transparent data on childcare centres is another option, enabling parents to make comparisons among them.
- **Mandate minimum nationwide paternity leave and encourage uptake by male workers:** China's paternity leave entitlements range from one week to one month depending on the region.²²⁶ In countries that are further advanced on reducing gender

²²⁰ *China's choice: Capturing the \$5 trillion productivity opportunity*, McKinsey Global Institute, June 2016.

²²¹ As noted, we do not discuss China's sex ratio at birth in detail in this report, but acknowledge that this is still an aspect of gender inequality that demands attention.

²²² Shan Juan, "Looking to the next generation", *China Daily USA*, September 3, 2016.

²²³ J. Klugman and L. Wang, *How women have fared in the labour market with China's rise as a global economic power*, UNHLP background brief, 2016, cited in *Leave no one behind: A call to action for gender equality and women's economic empowerment*, Report of the UN Secretary-General's High-Level Panel on Women's Economic Empowerment, 2016.

²²⁴ *Family policies: Sweden (2014)*, Population Europe Resource Finder and Archive (<http://www.perfar.eu/policy/family-children/sweden>).

²²⁵ Alex Linder, *Beijing kindergarten accused of drugging, molesting kids after parents find needle marks*, *Shanghaiist*, November 24, 2017.

²²⁶ Liu Dong, "Parental leave extended in 30 provinces", *China Daily*, October 7, 2017.

inequality on unpaid care work than China, universal paternity leave is more generous. Seven of the top ten countries for paternity leave identified by the World Economic Forum are also in the top 20 countries for the sharing of unpaid care work in MGI's data set of 95 countries. In these seven countries, a variety of policies enable fathers to have extended paternity leave. In Finland, fathers can have up to eight weeks of paid leave. Other countries have shared leave requirements stipulating that fathers must use the leave or lose it.²²⁷ However, providing paternity leave alone is not enough, as men need to be encouraged to use it and shift their attitudes towards unpaid care work. Japan has the most generous paternity leave in the world, but in the 2015 financial year only 2 to 5 percent of men took it.

- **Increase focus and accelerate provision of elderly care to respond to an aging population:** The government's five-year plan (2016–20) on care for the elderly is wide-ranging, including addressing health insurance, pension allowances, and the opening up of markets to private investment and NGO funding to reduce pressure on public provision. However, there are a number of barriers, including inconsistencies in regulation among different levels of government, skill gaps, and labour shortages. One study estimated that less than one-third of caregivers are formally trained.²²⁸ Another found that there are only 1.1 long-term care workers for every 100 people aged over 65.²²⁹ Numerous trials have been carried out, but implementation of best practices has been slow. The province of Guangzhou is trying to increase the number of trained caregivers by increasing wages and support for prospective carers to obtain qualifications.²³⁰ China could also look at the example of Singapore, which offers grants to people who want to take caregiver courses or hire an overseas worker to assist with care. Singapore also has a number of disability and long-term-care schemes, including home-based care and nursing homes.²³¹
- **Mandate minimum nationwide elderly-care leave for male and female employees:** China's law is clear on where responsibility for caring for the elderly lies: "mainly" with families.²³² Yet government support is growing gradually. Several provincial governments now offer leave for only children whose parents aged over 60 are hospitalised, for instance. Henan Province mandated up to 20 days of leave in 2016, and Sichuan recently announced leave of no less than three days. However, there are still questions about whether companies comply with such provisions and whether they should be blacklisted if they don't, and about the strictness of leave provisions (which tend not to apply to employees with a sibling whose parents are under the age of 60).²³³ In other countries, including Australia, all employees are entitled to ten days of sick leave that can be taken to care for family members and two days of compassionate leave that covers caring for family members with a life-threatening illness or injury; there are clear guidelines on provision.²³⁴

²²⁷ Chris Weller, *These 10 countries have the best parental leave policies in the world*, World Economic Forum, August 24, 2016.

²²⁸ Zhanlian Feng et al., "China's rapidly aging population creates policy challenges in shaping a viable long-term care system", *Health Affairs*, volume 31, number 12, December 2012.

²²⁹ Xenia Scheil-Adlung, *Long-term care protection for older persons: A review of coverage deficits in 46 countries*, Extension of Social Security series number 50, ILO International Labour Office, 2015.

²³⁰ *Guangzhou: Elderly nursing staff next year to implement the "minimum wage system"*, 2016 (http://www.xinhuanet.com/health/2016-12/09/c_1120086881.htm).

²³¹ *Singapore silver pages*, January 2018 (www.silverpages.sg).

²³² Law of the People's Republic of China on the Protection of the Rights and Interests of the Elderly, 2015 amendment (<http://en.pkulaw.com/w/display.aspx?cgid=252608&lib=law>).

²³³ Xu Xiaodan, *Has the only child elderly-leave really come?* China Law Insight, King & Wood Mallesons, December 6, 2017.

²³⁴ *Leave*, Australian Government Fair Work Ombudsman (<https://www.fairwork.gov.au/leave>).

- Encourage and implement family-friendly work practices such as remote and flexible working, and permanent part-time roles that enable parents to accommodate their care requirements:** Working flexibly is vital for many parents seeking to balance their family and work lives. In one recent survey of five Asian countries by international recruitment firm Hays, 40 percent of male respondents and 38 percent of female respondents in China said that flexible work hours were very important to them. Chinese respondents also ranked flexible working policies as the most useful initiative to help parents.²³⁵ A recent study in China found that family-friendly work policies increased job satisfaction and reduced the likelihood of an employee's leaving a company—and more so in the case of women than men.²³⁶ The availability of flexible working varies enormously, according to the OECD. In New Zealand, where policies are close to best practices, 89 percent of employees are entitled to flexible start and finish times occasionally and 63 percent regularly.²³⁷

2. Invest in shifting attitudes about the role of women in society and work

We know that cultural norms and social attitudes towards the roles of men and women contribute to gender inequality around the world. In China, as elsewhere, it is vital to shift these attitudes in order to reinforce progress towards parity, because movement on any of the suggested priorities we discuss relies to an extent on a change in attitudes. Here we highlight just two approaches that have proved effective in other countries.

- Launch public-awareness campaigns on the economic and societal benefits of women being free to pursue careers and of parents sharing childcare:** Public-awareness campaigns can shift attitudes towards women's roles. In India, Procter & Gamble's #SharetheLoad television campaign has drawn attention to the belief in society that doing the laundry is exclusively women's work. In China, a video called Marriage Market Takeover commissioned by Japanese beauty brand SK-II, which focused on the stigmatisation of unmarried women dubbed *sheng nu*, or "leftover women", went viral.²³⁸ National public campaigns would ideally ensure that their tone does not use detrimental language such as *sheng nu* or reinforce traditional views of women's roles. The nationwide search for China's "most beautiful families" portrays women primarily as housewives.²³⁹ The All China Women's Federation has an important role to play here in using its resources to promote the value of working women.
- Encourage male and female leaders (champions) to role model and advocate for change:** Genuine change requires men to alter their behaviour, and the use of male champions is an approach consistent with best practices. Australia's Male Champions of Change is one example; another is Japan's *Ikumen* initiative, put in place by the government with specific aims such as increasing the share of fathers who take paternity leave and the time men spend on unpaid care work.²⁴⁰ Jack Ma of Alibaba promotes the importance of women in his company.²⁴¹ If other senior male executives were to take a similar approach, this could accelerate a shift in attitudes. Prominent women, too, need to be role models. In other countries, powerful voices such as Facebook's Sheryl Sandberg, who leads the Lean In movement, have been highly influential, but fewer Chinese women have publicly advocated on gender issues.

²³⁵ *Gender diversity is key to business success in Asia*, 2017 Hays Asia Gender Diversity Report, 2017.

²³⁶ Wansi Chen et al., "Family-friendly work practices and their outcomes in China: The mediating role of work-to-family enrichment and the moderating role of gender", *The International Journal of Human Resource Management*, June 2016.

²³⁷ OECD Family Database (http://www.oecd.org/els/family/LMF_2-4-Family-friendly-workplace-practices.pdf).

²³⁸ Heather Chen, *Emotional advert about China's "leftover women" goes viral*, BBC News, April 8, 2016.

²³⁹ ACWF unveils "most beautiful families" of 2017, *Women Voice*, May 27, 2017.

²⁴⁰ Japan's programme is run by the Ikumen Diet Association. See *Untapped potential*, The American Chamber of Commerce in Japan Women in Business Committee, 2016.

²⁴¹ He Wei, "Women are key to Alibaba's success: Jack Ma", *China Daily*, October 7, 2017.

- **Mandate public reporting of women in employment and leadership in state-owned and other companies:** Just as businesses monitor key performance indicators to track progress and keep executives accountable, so the journey towards gender parity needs measurement, tracking, and enforcement. In China, the National Bureau of Statistics publishes large amounts of gender-disaggregated data, supplemented by national census data, every ten years in the Women and Men in China report, and several groups including the China Family Culture Research Society jointly produce an annual “blue book” on women’s lives.²⁴² However, this data gathering is not matched by specific commitments by the government or requirements imposed on Chinese organisations. For example, China could aim to provide greater transparency about women’s representation in leadership positions. Japan mandates that all publicly listed companies publicly disclose the number of women in executive positions along with action plans to increase that number.²⁴³ China might consider mandating companies to publish gender-related data frequently and set an aspirational target for women in leadership.
- **Raise minimum female political representation in parliament and be transparent about progress in provinces:** Increasing female political representation is a way for the government to put the aim of gender equality at the forefront of the national agenda and to address the low share of women in leading political positions. China has several measures in place to increase the number of female political representatives, the main one being that women must account for at least 22 percent of the delegates elected to the People’s Congress, a rule announced during the 10th People’s Congress in 2007.²⁴⁴ Female politicians in China currently hold 24 percent of political seats but only 10 percent of ministry positions.²⁴⁵ China has hovered around 20 to 22 percent representation in the National People’s Congress since 1978.²⁴⁶ Today, around one-quarter of China’s provinces have less than 22 percent female delegates. The 12th People’s Congress mandated that the proportion of female delegates be higher by the 13th Congress.²⁴⁷ However, the government might consider increasing the target to 30 percent, in line with the 1990 UN Economic and Social Council target, and apply this to holders of ministerial positions as well as delegates to the People’s Congress for all provinces. Increasing transparency on progress towards higher representation of women will help to drive change—something that Japan has done to great effect.

3. Encourage and enforce equal treatment of women in the workplace

- **Promote equal treatment and strengthen enforcement of regulation:** China’s employment promotion and labour laws include articles that forbid discrimination based on gender in hiring, promotion, and pay. Nevertheless, China’s performance on the perceived wage gap between men and women indicator suggests the persistence of widespread gender discrimination on pay.²⁴⁸ There is also evidence that women have lost their jobs or missed out on promotions after becoming mothers. In one survey of women who lost jobs in Shanxi Province, respondents listed childbearing responsibilities

²⁴² Zhang Ping, *Women’s annual “Blue Book” on spending, life topics released in Beijing*, All-China Women’s Federation, June 20, 2017.

²⁴³ *Greater gender equality for more inclusive growth*, Japan Policy Brief, OECD, April 2015.

²⁴⁴ Decision of the Fifth Session of the Tenth National People’s Congress on the number of deputies to the Eleventh National People’s Congress and on the election of the deputies (http://www.npc.gov.cn/englishnpc/Law/2009-02/25/content_1472459.htm).

²⁴⁵ DataMarket (<https://datamarket.com/data/set/15jy/proportion-of-women-in-ministerial-level-positions#lids=15jy!hkm&display=line>); and Inter-Parliamentary Union, Women in Politics Database.

²⁴⁶ J. Min, *Women’s representation in China regresses rather than progresses; only four female provincial governors have ever been found in history*, 2012 (<http://www.wsic.ac.cn/internalwomenmovementliterature/80393.htm>).

²⁴⁷ Decision on the Quotas and Election of Representatives to the Thirteenth National People’s Congress at the Fifth Session of the Twelfth National People’s Congress, 2017 (http://www.npc.gov.cn/npc/xinwen/2017-03/15/content_2018912.htm).

²⁴⁸ Biwei Su and Almas Heshmati, *Analysis of gender wage differential in China’s urban labor market*, IZA discussion paper number 6252, December 2011.

as one of the main reasons.²⁴⁹ ILO research on women in China's labour market found that 66 percent of new jobs advertised through public employment services in 117 cities have gender requirements—and more listings specify that a man is wanted for a job than a woman. In 2011, male-only job adverts increased.²⁵⁰ This evidence suggests that China should consider how it can step up its monitoring and enforcement of antidiscrimination policies in the workplace, and that companies need to do better in this area.

- **Remove barriers to women continuing to work past the age of 50 and 55 in blue-collar and white-collar work, respectively, and align with the male retirement age of 60:** Women in China retire relatively early, giving them less time in which to make it to the top echelons of business. Yet in the context of increasing life expectancy and the digitisation of the workplace that is removing many of the physical challenges of work, earlier retirement ages do not make sense. Today, the law provides access to retirement pensions at the age of 50 for female blue-collar workers and 55 for female white-collar workers—but 60 for men. A World Bank report finds that the probability of retirement rises to around 40 percent for women aged 50 to 55 in urban areas when their pension becomes available; the probability of retirement then falls to 20 percent again up to the age of 60. In rural areas, the probability of women retiring follows a more normal path, rising gradually with age as the male retirement probability does.²⁵¹

Although there are no explicit provisions against women working beyond 50 to 55, many women do not. Those who wish to continue working are required to sign a new work contract, which may not be forthcoming for a number of reasons, including the fact that older women are targeted when a company wants to employ cheaper workers or children of those who have power, the misinterpretation of the blue-collar classification, and a cultural attitude that women should not work as long as men.²⁵² Effectively, many women miss out on opportunities to develop their careers, and they have reduced pensions and fewer social security benefits.²⁵³ The government has said that it intends to raise the retirement age for both men and women, primarily driven by the need to address the social security burden.

The Institute of Population and Labour Economics and the Chinese Academy of Social Sciences have recommended that men and women retire at the same age by 2045; this can be accomplished by gradually raising the retirement age.²⁵⁴ However, some observers have noted challenges in implementing such a policy, particularly for blue-collar workers who cite hard working conditions as a reason to retire.²⁵⁵ Overall, the emphasis should be on ensuring that women have the opportunity to continue working, without any discrimination or deterioration of their rights. It makes sense to focus first on white-collar workers, because raising their retirement age is less contentious. Policy makers need to consider the potential trade-off should raising the retirement age result in a reduction in childcare provided by grandparents, which typically supports mothers who wish to remain in or return to the workforce.

²⁴⁹ *Workplace discrimination in China*, China Labour Bulletin, November 20, 2012, and “Gender equality in East Asia: Progress and the challenges of economic growth and political change”, in *East Asia update*, World Bank, 2009.

²⁵⁰ Sukti Dasgupta, Makiko Matsumoto, and Cuntao Xia, *Women in the labour market in China*, ILO Asia-Pacific working paper series, May 2015.

²⁵¹ *Live long and prosper: Aging in East Asia and Pacific*, The World Bank, 2016.

²⁵² Nursyahbani Katjasungkana and Saskia E. Wieringa, eds., *The future of Asian feminisms: Confronting fundamentalisms, conflicts and neo-liberalism*, Cambridge Scholars Publishing, 2012.

²⁵³ Sukti Dasgupta, Makiko Matsumoto, and Cuntao Xia, *Women in the labour market in China*, ILO Asia-Pacific working paper series, May 2015.

²⁵⁴ Su Zhou, *China plans to raise age of retirement*, The State Council of the People's Republic of China, March 1, 2016.

²⁵⁵ “Why raising the retirement age is a bad idea for workers”, *China Labour Bulletin*, June 22, 2012.

4. Develop women's entrepreneurial and digital skills and networks, particularly in rural areas

- **Create partnerships with the private sector to provide training and networking events for women, particularly in the e-commerce and technology sectors:**

There are several ways to empower women to start their own businesses and thrive in work. Training, networking, and access to the internet are all important. There are many examples of efforts to push on these fronts. For instance, the All-China Women's Federation has established a number of partnerships with private-sector companies such as Alibaba to provide training and networking events for women, particularly in the e-commerce and technology sectors. Alibaba is already setting up service centres in rural areas in partnership with local governments to provide support services for farmers and rural citizens to engage in e-commerce; an extension to these existing initiatives could be to add a focus on women.²⁵⁶ SAP in China has partnered with UN Women with the aim of training 100,000 women entrepreneurs in digital technologies and business skills, particularly in smaller cities.²⁵⁷ This focus on smaller cities and rural areas will be particularly important if all women are to be enabled to participate in China's growing digital economy.



China's progress towards gender parity has stagnated in recent years, but the evident success of women in its most dynamic, fastest-growing sectors, namely e-commerce and technology, points to the possibilities that could not only transform the lives of many women but also inject the economy with renewed vigour. Economic growth alone is not sufficient to kick-start renewed advances for women. Proactive policies and programmes from government and companies can enable women to make an even greater contribution. The more women who are present in the workplace, and are successful and high-profile, the easier it will be to shift traditional attitudes that view them primarily as mothers and housewives.

²⁵⁶ *Make a better rural China*, Alibaba, January 19, 2018 (<http://www.alibabagroup.com/en/ir/pdf/160614/09.pdf>).

²⁵⁷ Ye Shan, *Embracing a "new era"*, China Women's Federation, December 26, 2017.



4. INDIA

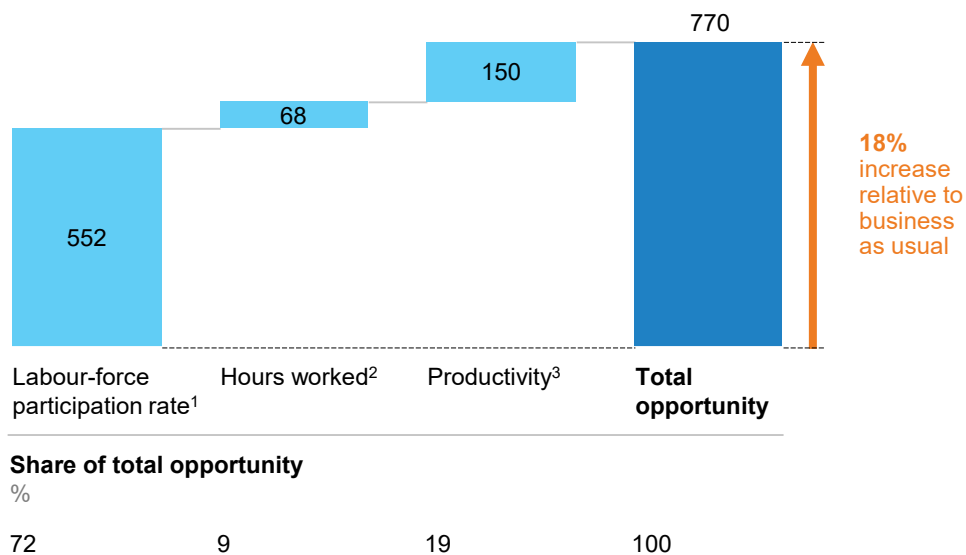
India has one of the largest opportunities in the world to boost GDP by advancing women’s equality. In a best-in-region scenario, it could add \$770 billion to annual GDP by 2025, 18 percent higher than business-as-usual GDP, compared with the global average opportunity of an 11 percent boost to business-as-usual GDP (Exhibit 24). The contribution of women to India’s GDP is 18 percent, one of the lowest proportions in the world, reflecting the fact that only 25 percent of India’s labour force is female.²⁵⁸ More than 70 percent of the potential GDP opportunity in our analysis comes from increasing women’s participation in the labour force by 10 percentage points.²⁵⁹

Exhibit 24

India could add \$770 billion to annual GDP by 2025—18 percent above business as usual

Incremental 2025 GDP from improving gender equality in the best-in-region scenario, relative to the business-as-usual scenario

\$ billion, in 2014 dollars



1 Implies female labour-force participation rate increasing from 27% in 2014 to 37% in the 2025 best-in-region scenario.

2 Implies full-time equivalent rate for females increasing 89% in 2014 to 95% in the 2025 best-in-region scenario.

3 Implies weighted productivity for females increasing from \$4,000 in 2014 to \$9,000 in the 2025 best-in-region scenario.

NOTE: Numbers may not sum due to rounding.

SOURCE: McKinsey Global Institute analysis

²⁵⁸ Based on data from the ILO for the sake of comparability with other countries.

²⁵⁹ Note that this assumes that sufficient jobs can be created to accommodate increased participation—the “supply” side of the equation.



India



GDP opportunity from advancing women's equality¹

\$770 billion

added to annual GDP by 2025

or

18%

over business-as-usual GDP by 2025



Gender inequality today²

Level of gender inequality

Extremely high
0 – 0.50

High
0.50 – 0.75

Medium
0.75 – 0.95

Low
0.95 – 1.00

India

Asia Pacific best

Asia Pacific average

Global best

Gender equality in work

0.30

0.73

0.44

0.73

Gender equality in society



Essential services and enablers of economic opportunity

0.78

0.96

0.85

0.97



Legal protection and political voice

0.28

0.66

0.32

0.84



Physical security and autonomy

0.75

0.96

0.82

0.97



Potential measures to capture the GDP opportunity

Government



Make a concerted effort to expand job opportunities for women



Expand women's business training and connectivity to markets through digital platforms to activate female entrepreneurs



Continue to expand access to and utilisation of childcare and infrastructure to reduce unpaid care work



Invest in shifting attitudes about the role of women in society and work (e.g., spotlight data, engage community leaders, and run education campaigns)

Companies



Enhance commitment to, and policies for, gender balance in the corporate sector among employees and in supply chains



Invest in high-quality employer-provided childcare and share best practice



Accelerate rollout of digital literacy initiatives and innovative financial products for female entrepreneurs

¹ GDP opportunity in scenario where all countries match their best-in-region country in progress towards gender parity.

² GPS scores are made up of 15 indicators of gender equality in work and society, weighted equally. GPS runs from

0 (no gender equality) to 1.0 (parity); for instance, a 0.95 ratio represents 5% distance from gender parity.

SOURCE: McKinsey Global Institute analysis

India is somewhat ahead of close neighbours Bangladesh and Pakistan on the path to gender parity, but behind the Asia Pacific average on gender equality in both work and society. As our previous research has noted, India should be further ahead given its stage of economic development. However, the positive news is that it has already progressed faster than any other Asia Pacific country over the past ten years, largely due to advances in education and a reduction in maternal mortality (although from a lower base than many other countries in the region).²⁶⁰ India can now build on this achievement.

INDIA FACES MULTIPLE CHALLENGES IN ADVANCING WOMEN'S EQUALITY, WITH SIGNIFICANT VARIATION WITHIN THE COUNTRY

India's position on gender equality in work and on the three elements of gender equality in society is lower than the regional average, and the country lags well behind best in region. It has a considerable way to travel to match the best performance in the region on female-to-male labour-force participation rate, maternal mortality, financial and digital inclusion, sex ratio at birth, and violence against women (Exhibit 25).

²⁶⁰ *The power of parity: Advancing women's inequality in India*, McKinsey Global Institute, November 2015.

Exhibit 25

India has extremely high levels of gender inequality on six indicators

Level of gender inequality ■ Extremely high ■ High ■ Medium ■ Low

	India	Asia Pacific best	Asia Pacific average ¹	Global best
Gender equality in work	0.30	0.73	0.44	0.73
Labour-force participation rate F/M ratio	0.34	0.93	0.60	1.00
Professional and technical jobs F/M ratio	No data	1.42	0.95	2.66
Perceived wage gap for similar work F/M ratio	0.50	0.78	0.56	0.86
Leadership positions F/M ratio	No data	0.96	0.25	1.13
Unpaid care work M/F ratio	0.10	0.58	0.25	0.85
Gender equality in society				
Essential services and enablers of economic opportunity	0.78	0.96	0.85	0.97
Unmet need for family planning % of women	13	4	10	4
Maternal mortality Per 100,000 births	174	5	102	3
Education level F/M ratio	0.87	1.00	0.92	1.00
Financial inclusion F/M ratio	0.66	1.00	0.76	1.00
Digital inclusion F/M ratio	0.72	1.00	0.77	1.00
Legal protection and political voice	0.28	0.66	0.32	0.84
Legal protection index	0.40	1.00	0.47	1.00
Political representation F/M ratio	0.18	0.55	0.19	0.93
Physical security and autonomy	0.75	0.96	0.82	0.97
Sex ratio at birth M/F ratio	1.11	1.03	1.11	1.02
Child marriage % of girls and young women	21	0	14	0
Violence against women % of women	37	14	28	6

¹ Weighted average based on 2016 female population.

SOURCE: McKinsey Global Institute analysis

- **Female-to-male labour-force participation ratio:** Labour-force participation is a key indicator, because it is where the lion's share of the GDP opportunity comes from in our analysis. Women account for only 25 percent of the labour force, on a par with many countries in the Middle East and North Africa where, unlike in India, legal provisions restrict many forms of female employment.²⁶¹

According to ILO estimates, India's female-to-male participation ratio fell from 0.44 to 0.34, between 2005 and 2012 and has held steady since.²⁶² This was a much steeper decline than observed in other developing economies, indicating that taking action on labour-force participation is even more critical for India than for other countries. Although this decrease implies significant lost economic potential, much of the fall was driven by other areas of progress—namely demographic shifts due to urbanisation and growth in the relative share of women with higher educational attainment—that will eventually translate into larger economic gains.²⁶³ These demographic shifts lead to a lower labour-force participation ratio, all other things being equal. This is because urban women in India have lower average participation than those in rural areas (with a female-to-male ratio in 2012 of 0.26 in urban areas, compared with 0.44 in rural areas), and women educated to the secondary level have lower participation rates than those with no secondary education.²⁶⁴

An important consideration beyond the level of labour-force participation is the quality of that participation. In India, 120 million women, or 97 percent of all female workers, are active in the informal sector, many of them in low-paying activities such as picking up waste and domestic work that are beyond the reach of regulation.²⁶⁵ Improving the quality of work and its remuneration and enhancing the wellbeing of such women are an urgent priority.

In the longer term, India should aim to create many more jobs in the formal, organised sector. Women's labour-force participation tends to follow a U-shaped curve in which women in very low-income households work by necessity and often in low-paid agriculture or low-productivity informal jobs, but then, as families become more prosperous and economic necessity diminishes, their participation tends to fall; when there is less economic need to work for pay, societal norms favouring women's role as caregivers in the home come to the fore. This effect reverses only when women have more attractive work options facilitated by high levels of education, and the creation of better-paid jobs in the formal sector will be an increasing priority in order to reinforce women's participation. In parallel, India's corporations will need to step up their hiring of women and ensure that they retain them and enable them to progress into leading roles (see Chapter 1).

²⁶¹ *The power of parity: Advancing women's equality in India*, McKinsey Global Institute, November 2015.

²⁶² Note that the latest available data are for 2015, and this dynamic may have shifted in recent years.

²⁶³ The only groups experiencing a significant like-for-like decline from 2005 to 2012 were rural women with low levels of education (that is, without a secondary education). The decline was steepest among non-literate rural women. Similar trends for this group have been observed in other developing countries as they have moved away from agriculture towards industry.

²⁶⁴ For instance, the ratio of non-literate women to men in the labour force in rural areas was 0.44 in 2012, compared with 0.33 for those educated at the secondary level.

²⁶⁵ *Leave no one behind: A call to action for gender equality and women's economic empowerment*, Report of the UN Secretary-General's High-Level Panel on Women's Economic Empowerment, 2016.

- **Unpaid care work:** The flip side of low participation in paid work is undertaking a higher share of unpaid work, and India has a large gender imbalance here. In its 2015 report on gender inequality in India, MGI found that women perform nearly ten times the unpaid care work as men, a far greater disparity than the global average of three times. If the unpaid work of Indian women were to be measured as GDP, even at minimum wage rates, it would contribute \$300 billion to India’s economic output.²⁶⁶ Three-quarters of unpaid work is in the form of routine household chores, with the amount of time spent on these activities lengthened by poor access to basic services such as sanitation, clean water, and clean sources of cooking fuel.
- **Legal protection:** India gives its women a range of legal protections. It has laws that address domestic violence and sexual harassment, and women have the right to inherit property and give evidence in court. Recent advances include an increase in paid maternity leave from 12 to 26 weeks at the beginning of 2017. However, legal protection to ensure gender parity remains weak. Key legislation such as legal mandates of equal pay for equal work and entitlements to parental (rather than maternity) leave are still not in place. Even when legislation exists, customary laws, prevailing social norms, and poor enforcement may place severe hurdles on the ability of women to access legal protection. Moreover, as we have noted, 120 million women in India work without the protection of regulations such as antidiscrimination and occupational health and safety laws.²⁶⁷
- **Political representation:** Only 11 percent of MPs in the 16th Lok Sabha (India’s lower house of parliament) and 9 percent of members of state legislative assemblies were women in 2014, according to the Inter-Parliamentary Union. However, quotas for women at the *panchayat* (rural local government) level helped boost the share of women among elected representatives to 46 percent in that year. This suggests that there is an opportunity for India to capitalise on the many women with local government experience by better equipping them to enter higher levels of politics.
- **Sex ratio at birth:** Although sex-selective abortion is illegal in India, United Nations data suggest that some 300,000 to 600,000 Indian girls are not born every year due to sex-selective abortion, causing India’s highly disparate sex ratio at birth. The sex ratio of the last birth has not changed significantly in the past ten years (reflecting the fact that families tend to stop having children once they have a boy), although there has been an increase of four percentage points in the number of women who prefer more, or an equal number of, daughters vs. sons.²⁶⁸ Innovative public-awareness campaigns have attempted to shift preferences about children’s gender. For example, the Beti Bachao Beti Padhao campaign—“save the daughter, educate the daughter”—has used radio and text messages to raise awareness. Television drama series *Atmajaa* and *Astitva* have also brought attention to this topic. While the effectiveness of such initiatives needs to be explored further, they appear to be promising approaches to improving sex ratio at birth.²⁶⁹

²⁶⁶ For data in other regions, see *The power of parity: Advancing women’s equality in India*, McKinsey Global Institute, November 2015.

²⁶⁷ Diptirekha Mohapatra, *Female workers in the unorganised sector in India*, International Conference on Studies in Humanities and Social Sciences, July 29–30, Phuket, Thailand, 2015.

²⁶⁸ “Gender and son meta-preference: Is development itself an antidote?”, in *Economic Survey 2017–18*, volume 1, Government of India, January 2018.

²⁶⁹ India’s sex ratio at birth rose from 899 females per 1,000 males in 2015 to 928 in 2016, according to the National Family Health Survey. However, this may simply be a reversion to a long-term average: the figure was higher in 2012 and 2013 (931 and 942, respectively). See *National Family Health Survey (NFHS-4), 2015–16*, Government of India, Ministry of Health and Family Welfare, December 2017.

- **Violence against women:** Various forms of violence against women have been brought to the forefront of public discourse over the past five years, with intense debate and media attention provoked by several high-profile attacks on women in public spaces. Domestic violence is also a significant issue. In 2016, 22 percent of women reported suffering spousal physical or sexual violence in the previous 12 months.²⁷⁰ Attitudes are a serious contributing problem. In one survey, 52 percent of women and 42 percent of men agreed that a husband is justified in beating his wife for one of seven reasons.²⁷¹

India should be further ahead on tackling gender inequality, given the correlation between economic development and progress on gender inequality globally. In 2016, 26 countries in our data set had a lower per capita GDP and Human Development Index than India, but 21 had achieved more progress towards gender parity than India—indeed, 13 had lower inequality on seven out of the 15 indicators for which we had comparative data. The fact that India isn't more advanced towards parity is evidence that other factors are exerting influence. Some cultural norms still militate against equality. In the World Values Survey, for instance, Indian respondents show the second-highest level of support—71 percent—of any country in Asia Pacific for the statement “When a mother works for pay, the children suffer”. Societal preference for male children contributes to sex-selective abortion in India as well as the higher propensity for families to stop having children only after a male child is born.

Gender inequality varies within the country, largely due to differences in levels of urbanisation and educational attainment as well as economic development. This disparity suggests that there is an opportunity for states to learn from one another how to tackle issues on which there is significant variation (Exhibit 26).

²⁷⁰ *National Family Health Survey (NFHS-4), 2015–16*, Government of India, Ministry of Health and Family Welfare, December 2017.

²⁷¹ Reasons were going out without telling him, neglecting the house or children, arguing with him, refusing to have sexual intercourse with him, not cooking properly, showing disrespect for in-laws, or if he suspects she is unfaithful.

Exhibit 26

India has high variation in performance across regions (1 of 2)

Level of inequality ¹	Gender equality in work						Gender equality in society				
	Unpaid care work: access to Index of households ²						Essential services and enablers of opportunity			Education Index of women ²	
	La- bour- participation rate F/M ratio	Partici- pation in profess- ional and tech- nical jobs F/M ratio	Wage gap F/M ratio	Clean cook- ing fuel	Clean drink- ing water	Sani- tary toilets	Health Unmet need for family plan- ning Index of women 15–49 ²	Maternal mor- tality Per 100,000 live births	Access to mens- trual hygiene % of women	Adult liter- acy	Ele- mentary school com- pletion rate ³
Andaman & Nicobar Isl.	0.42	2.35	0.98	0.64	0.93	0.94	0.16	*	0.90	0.83	0.97
Andhra Pradesh	0.62	0.66	0.75	0.62	0.69	0.87	0.05	92	0.68	0.58	0.79
Arunachal Pradesh	0.70	0.55	0.75	0.45	0.57	0.96	0.22	*	0.73	0.73	1.00
Assam	0.35	0.99	0.61	0.25	0.62	0.80	0.14	300	0.45	0.82	0.87
Bihar	0.24	0.73	0.47	0.18	0.60	0.45	0.21	208	0.31	0.56	0.99
Chandigarh	0.13	1.91	1.14	0.94	1.00	0.90	0.06	*	0.92	0.93	1.00
Chhattisgarh	0.68	0.39	0.64	0.23	0.95	0.96	0.11	221	0.47	0.63	1.00
Dadra & Nagar Haveli	0.25	1.78	1.01	0.56	*	0.91	0.20	*	0.57	0.70	1.00
Daman & Diu	0.19	0.61	0.89	0.74	*	0.89	0.20	*	0.73	0.90	0.97
Delhi	0.19	1.17	1.19	0.98	0.89	0.86	0.16	*	0.90	0.86	1.00
Goa	0.33	1.65	0.86	0.84	1.00	0.79	0.18	*	0.89	0.87	1.00
Gujarat	0.26	0.70	0.73	0.53	1.00	0.98	0.17	112	0.60	0.71	0.94
Haryana	0.28	1.66	0.84	0.52	0.95	0.94	0.09	127	0.78	0.67	1.00
Himachal Pradesh	0.25	1.32	0.59	0.37	0.83	0.99	0.16	*	0.84	0.77	1.00
Jammu & Kashmir	0.16	2.54	0.63	0.58	0.70	0.56	0.12	*	0.67	0.64	0.78
Jharkhand	0.60	0.94	0.59	0.19	0.96	0.73	0.18	208	0.50	0.60	0.99
Karnataka	0.44	0.73	0.70	0.55	0.62	0.83	0.10	133	0.70	0.69	0.90
Kerala	0.44	1.47	0.73	0.57	0.45	0.89	0.14	61	0.90	0.93	1.00
Lakshadweep	0.29	1.78	0.75	0.35	*	0.97	0.18	*	0.97	0.89	0.96
Madhya Pradesh	0.26	0.78	0.52	0.30	1.00	0.88	0.12	221	0.38	0.61	1.00
Maharashtra	0.47	0.46	0.77	0.60	0.89	0.88	0.10	68	0.66	0.77	0.98
Manipur	0.62	1.45	0.91	0.42	0.77	0.79	0.30	*	0.76	0.84	1.00
Meghalaya	0.70	1.67	0.81	0.22	0.38	0.96	0.21	*	0.64	0.93	0.99
Mizoram	0.78	0.97	0.80	0.67	0.84	0.90	0.20	*	0.93	0.95	0.92
Nagaland	0.80	0.67	0.84	0.33	0.64	0.87	0.22	*	0.66	0.94	0.77
Odisha	0.32	0.99	0.83	0.19	0.81	0.51	0.14	222	0.47	0.68	0.89
Puducherry	0.40	1.47	0.51	0.85	0.90	0.83	0.08	*	0.97	0.82	1.00
Punjab	0.16	2.01	0.77	0.66	0.80	0.93	0.06	141	0.84	0.73	1.00
Rajasthan	0.44	0.58	0.67	0.32	0.58	0.96	0.12	244	0.55	0.54	0.85
Sikkim	0.71	1.31	0.91	0.59	0.49	0.99	0.22	*	0.85	0.89	1.00
Tamil Nadu	0.55	0.63	0.70	0.73	0.96	0.83	0.10	79	0.91	0.74	1.00
Telangana	0.62	0.38	*	0.67	*	0.82	0.07	*	0.76	0.58	0.90
Tripura	0.65	1.61	0.70	0.32	0.66	0.68	0.11	*	0.44	0.84	0.96
Uttar Pradesh	0.19	1.10	0.63	0.33	0.93	0.63	0.18	285	0.47	0.60	0.90
Uttarakhand	0.32	0.60	0.90	0.51	0.66	0.96	0.16	285	0.70	0.77	0.99
West Bengal	0.27	0.96	0.53	0.28	0.52	0.86	0.08	113	0.55	0.73	1.00

1 Given the nature of gender equality issues and data availability in India, we have expanded beyond the typical set of GPS indicators. As many of these were not F/M ratios, we chose to colour based on even-sized bands between 0 and 1 rather than our standard GDP colouring. Colouring inverted for unmet need for family planning, child marriage, and spousal violence to reflect that they are undesirable outcomes. For maternal mortality, colouring based on score normalised to 0–1 scale (though number shown is original per 100 live births). Sex ratio at birth follows binary colouring based on whether ratio is above or below 1.10.

2 Indexed so that 1 = 100%.

3 Class VIII.

SOURCE: Ministry of Labour Employment-Unemployment Survey; National Family Health Survey; Ministry of Drinking Water and Ministry of Urban Development Statistics; U-DISE Flash Statistics; All India Survey on Higher Education; NSS Survey on Education; Reserve Bank of India; MOSPI Statistical Yearbook; Census; Sample Registration Survey; McKinsey Global Institute analysis

Exhibit 26 (continued)

India has high variation in performance across regions (2 of 2)

Level of inequality ¹	Gender equality in society										
	Essential services and enablers of opportunity (continued)					Political representation			Physical security and autonomy		
	Education		Digital inclusion		Financial inclusion	Members of Parliament	Members of Legislative Assembly	Representation in Panchayati Raj institutions	Sex ratio at birth	Child marriage Index of women 18–29 ²	Spousal violence Index of women ²
	Index of women ²	Index of women ²	Bank account ownership F/M ratio	Mobile phone ownership Index of women ²	Computer/smartphone skill F/M ratio						
Secondary completion rate ³	Gross tertiary enrolment	Mobile phone ownership Index of women ²	Computer/smartphone skill F/M ratio	Bank account ownership F/M ratio	Members of Parliament F/M ratio	Members of Legislative Assembly F/M ratio	Representation in Panchayati Raj institutions F/M ratio	Sex ratio at birth M/F ratio	Child marriage Index of women 18–29 ²	Spousal violence Index of women ²	
<0.2 Highest inequality	0.79	0.24	0.67	1.00	0.44	0.00	*	0.49	1.03	0.18	0.18
0.2–0.4	0.54	0.28	0.36	0.49	0.55	0.09	0.10	1.00	1.10	0.36	0.43
0.4–0.6	0.46	0.29	0.60	0.54	0.48	0.00	0.03	0.71	1.03	0.30	0.31
0.6–0.8	0.28	0.17	0.46	0.56	0.48	0.17	0.07	0.58	1.12	0.33	0.25
>0.8 Lowest inequality	0.26	0.13	0.41	0.39	0.48	0.08	0.16	1.00	1.10	0.42	0.43
* No data	1.00	0.69	0.74	0.67	0.47	0.00	*	0.62	1.14	0.13	0.23
	0.48	0.16	0.31	0.49	0.31	0.10	0.13	1.00	1.04	0.24	0.37
	0.33	0.12	0.37	0.65	0.32	0.00	*	0.60	1.08	0.32	0.33
	0.32	0.09	0.61	0.88	0.39	0.00	*	0.59	1.11	0.22	0.27
	0.80	0.48	0.67	0.73	0.49	0.17	0.09	*	1.17	0.17	0.27
	0.79	0.32	0.81	0.71	0.63	0.00	0.05	0.48	1.06	0.14	0.13
	0.37	0.17	0.48	0.53	0.45	0.18	0.08	0.50	1.18	0.25	0.20
	0.57	0.30	0.51	0.61	0.48	0.00	0.17	0.57	1.20	0.22	0.32
	0.87	0.41	0.74	0.63	0.51	0.00	0.06	1.00	1.09	0.10	0.06
	0.44	0.28	0.54	0.59	0.49	0.20	0.02	0.41	1.10	0.09	0.09
	0.36	0.17	0.35	0.40	0.39	0.00	0.12	1.00	1.09	0.39	0.34
	0.35	0.27	0.47	0.62	0.56	0.04	0.03	0.77	1.07	0.25	0.21
	0.72	0.40	0.81	0.80	0.65	0.05	0.06	1.00	1.04	0.09	0.14
	0.86	0.11	0.68	0.51	0.62	0.00	*	0.59	1.10	0.05	0.06
	0.36	0.19	0.29	0.46	0.32	0.21	0.15	1.00	1.08	0.33	0.33
	0.60	0.28	0.46	0.64	0.47	0.12	0.07	1.00	1.14	0.26	0.21
	0.52	0.35	0.63	0.51	0.56	0.00	0.03	0.94	1.07	0.12	0.53
	0.38	0.24	0.64	0.72	0.71	0.00	0.05	*	1.03	0.19	0.29
	0.51	0.24	0.77	0.81	0.63	0.00	0.00	*	1.03	0.11	0.17
	0.29	0.17	0.71	0.61	0.46	0.00	0.00	*	1.06	0.14	0.13
	0.28	0.19	0.39	0.45	0.41	0.11	0.08	1.00	1.05	0.23	0.35
	0.83	0.45	0.67	0.64	0.41	0.00	0.15	0.57	1.03	0.15	0.35
	0.65	0.31	0.57	0.66	0.50	0.08	0.05	0.53	1.12	0.10	0.21
	0.40	0.19	0.41	0.38	0.62	0.04	0.16	1.00	1.17	0.33	0.25
	0.65	0.41	0.80	0.79	0.60	0.00	0.10	1.00	1.04	0.16	0.03
	0.74	0.46	0.62	0.69	0.48	0.11	0.10	0.51	1.09	0.18	0.41
	0.52	0.34	0.48	0.46	0.50	0.06	0.08	*	1.11	0.31	0.43
	0.35	0.17	0.44	0.39	0.64	0.00	0.05	0.56	1.04	0.33	0.28
	0.58	0.25	0.37	0.48	0.43	0.19	0.11	0.67	1.13	0.23	0.37
	0.68	0.33	0.55	0.43	0.46	0.25	0.08	1.00	1.18	0.16	0.13
	0.44	0.17	0.42	0.52	0.47	0.40	0.16	0.51	1.07	0.44	0.33

1 Given the nature of gender equality issues and data availability in India, we have expanded beyond the typical set of GPS indicators. As many of these were not F/M ratios, we chose to colour based on even-sized bands between 0 and 1 rather than our standard GDP colouring. Colouring inverted for unmet need for family planning, child marriage, and spousal violence to reflect that they are undesirable outcomes. For maternal mortality, colouring based on score normalised to 0–1 scale (though number shown is original per 100 live births). Sex ratio at birth follows binary colouring based on whether ratio is above or below 1.10.

2 Indexed so that 1 = 100%.

3 Class VIII.

SOURCE: Ministry of Labour Employment-Unemployment Survey; National Family Health Survey; Ministry of Drinking Water and Ministry of Urban Development Statistics; U-DISE Flash Statistics; All India Survey on Higher Education; NSS Survey on Education; Reserve Bank of India; MOSPI Statistical Yearbook; Census; Sample Registration Survey; McKinsey Global Institute analysis

INDIA CAN BUILD ON ITS RECENT PROGRESS ON SOME ASPECTS OF GENDER INEQUALITY

Over the past ten years, India has made some of the largest advances towards gender parity in Asia Pacific on certain metrics, although from a lower base than many other countries.²⁷² India has made considerable strides in opening access to education to girls, a vital enabler of macroeconomic productivity benefits as well as benefits to the individual. India has achieved the largest improvement in gender inequality in education—equal to the improvement achieved by Nepal—over the past two years.²⁷³ Maternal mortality has been declining for some years, falling from 280 per 100,000 live births to 174 over the past decade, although in Asia Pacific, maternal mortality rates in Bangladesh, Cambodia, and Nepal have fallen by more over this period. The rate of child marriage has declined significantly, from 47 percent of women aged 20 to 24 having been married before the age of 18 in 2005 to 27 percent in 2015, according to the National Family Health Survey. The rate is significantly lower than in neighbouring Bangladesh (59 percent) but still higher than in Pakistan (21 percent). Women’s financial inclusion has also increased in recent years (see Box 9, “India has made notable progress on financial inclusion”).

To build on our previous work, in this report we choose to focus on two specific opportunities to address women’s lack of access to the fundamental enablers of economic opportunity. In both, India has already made progress, creating a solid platform for further advances. The first is increasing women’s access to digital technologies and financial products; we discuss these enablers together as they are strongly linked because of the pivotal role that access to mobile phones and the internet plays in opening doors to banking, payments, credit, access to markets, and entrepreneurship. Second, we look at how India could reduce the time women spend on unpaid care work by filling gaps in essential infrastructure, including childcare, and promoting labour-saving technologies such as clean cooking stoves. India has already made progress on rolling out household infrastructure like access to clean water. Such advances are particularly valuable because women do roughly ten times more household and care work than men. Building this momentum and sharpening focus on how women can achieve greater economic empowerment are arguably high potential priorities for India.

²⁷² Note that there is still a way to go on many areas and progress is slowing on some areas such as political representation and certain aspects of work quality. See *The global gender gap report 2017*, World Economic Forum, 2017.

²⁷³ The education gap between boys and girls has been virtually eliminated at the primary and secondary levels in India and has been narrowing at other educational levels. Girls’ gross enrolment in secondary education increased from 53 percent in 2007 to 74 percent in 2015, and that of boys from 62 percent to 74 percent over the same period, indicating no gender gap but signalling a need to raise enrolment levels for both girls and boys. In tertiary education, female enrolment rose from 11 percent in 2007 to 27 percent in 2015, while that for men rose from 15 percent to 27 percent. These statistics come from the UNESCO database.

Box 9. India has made notable progress on financial inclusion

India has achieved significant progress on the financial inclusion of both women and men over the past five years. The number of bank accounts has more than doubled, and the number of bank accounts held by women has almost tripled.¹ Several initiatives have succeeded by addressing pull and push factors simultaneously, as well as opportunities for income generation. India might now consider how to build on this progress. We highlight three initiatives that have been effective:

- **National drive for universal financial inclusion:** The Pradhan Mantri Jan Dhan Yojana (“wealth to all”) initiative aims to ensure access to banking, savings and deposit accounts, remittances, credit, insurance, and pensions—all in an affordable manner. The scheme drives citizen “pull” for, and utilisation of, bank accounts by directing payments of wages and government benefits directly to beneficiary bank accounts. It also “pushes” citizens by mandating the opening of accounts. This coupling of pull and push factors has helped drive rapid progress. According to the Department of Financial Services, 300 million people (160 million of them women) have gained access to bank accounts through the scheme.² Although this initiative did not target women specifically, the fact that it focuses on individual rather than household accounts has helped to narrow the gender gap on financial inclusion.
- **Thrust towards microentrepreneurship loans:** Lack of credit is an important barrier to entrepreneurship for both men and women in India. Previous MGI research found that India has 23 million enterprises that collectively have a \$140 billion gap between the credit they can obtain and the credit they need.³ The Pradhan Mantri Mudra Yojana programme, initiated in 2015, provides loans of up to one million rupees (around \$15,000) to non-corporate, non-farm micro and small enterprises, with a specific focus on women. Thus far, it has made loans to 13 million new entrepreneurs, and 47.5 percent of the funds have been dispersed to female entrepreneurs.⁴
- **Women’s collectives:** India has broadened access to finance for women through self-help groups (collectives with ten to 12 members). According to National Bank for Agriculture and Rural Development data, loans to self-help groups rose by 35 percent in 2015–16. Loans were made to some two million groups, reaching between 20 million and 24 million members.

For such efforts to have even more impact, persistent perceptions that women should not have control over household resources need to be addressed. For example, the Bhamashah scheme in Rajasthan attempts to increase financial inclusion by creating a digital ID for households linked with government services and a bank account. To drive female empowerment, it has designated females as the head of the household on the Bhamashah card and bank account. However, one study found that only 18 percent of these women reported going to the bank without a male family member present, and 86 percent of households said that male family members make the major decisions in the family.⁵

¹ Reserve Bank of India.

² *Progress report*, Pradhan Mantri Jan Dhan Yojana (<https://www.pmjdy.gov.in/account>).

³ IFC Enterprise Finance Gap database 2011, SME Finance Forum, 2013. See *Digital finance for all: Powering inclusive growth in emerging economies*, McKinsey Global Institute, September 2016.

⁴ Data are as of March 31, 2016. See *Loan disbursement to women entrepreneurs under Pradhan Mantri Mudra Yojana as on 31.03.2016*, community.data.gov.in, October 19, 2016; and *India’s labour market: A new emphasis on gainful employment*, McKinsey Global Institute, June 2017.

⁵ *Household perception: Impact of Bhamashah on digital governance reforms in Rajasthan*, version 1.0, MicroSave and Center for Global Development, December 2017.

ACCESS TO DIGITAL TECHNOLOGIES HAS EXPANDED IN INDIA: THE NEXT FOCUS IS WOMEN'S DIGITAL INCLUSION THROUGH INCREASING LITERACY AND TACKLING SOCIETAL ATTITUDES

Gender parity on access to the internet and mobile phones—the key gateway to financial services and opportunities for income generation in developing economies—is moderately correlated with a number of indicators of gender equality in work (see Box 10, “Digital inclusion of women has a unique role in enabling a broad acceleration of gender equality”).²⁷⁴

Yet far fewer Indian women access the internet than Indian men. In 2016, only 25 percent of internet users in rural areas, and only 40 percent in urban areas, were women.²⁷⁵ Only 46 percent of women own a mobile phone.²⁷⁶ Making further progress by focusing on barriers to access that face women is a vital part of India's efforts to empower its women.

²⁷⁴ The power of parity: How advancing women's equality can add \$12 trillion to global growth, McKinsey Global Institute, September 2015.

²⁷⁵ Internet in India—2016: An IAMAI & KANTAR IMRB report, Internet and Mobile Association of India, and Kantar IMRB Technology Practice, 2016.

²⁷⁶ Key findings from NFHS-4, National Family Health Survey, Government of India, Ministry of Health and Family Welfare, http://rchiips.org/NFHS/factsheet_NFHS-4.shtml.

Box 10. Digital inclusion of women has a unique role in enabling a broad acceleration of gender equality

Women's digital inclusion enables progress on other aspects of gender inequality:

Labour-force participation: The informal sector accounts for around 92 percent of employment in India, and matching people with jobs largely happens by word of mouth.¹ Digital job-matching platforms can aggregate a great deal of information about job seekers and available jobs, and could create a far more efficient labour market in India. This would have particular benefits for people living in remote areas and those looking for part-time work. McKinsey has estimated that the internet cuts the time it takes to search for a job by as much as 22 percent.

In one survey, 60 percent of women said that they already use the internet to search and apply for jobs.² McKinsey analysis suggested that accelerated roll-out of online talent platforms could create more effective job matching for 20 million to 28 million job seekers in India, a significant proportion of whom are likely to find part-time employment. Technology is also empowering women by helping them to move into jobs that were previously considered unconventional for them. In 2015–16, the

BabaJob job portal experienced a sevenfold increase in demand from employers for female cab drivers and an increase of more than 150 percent in applications for driving jobs from women.³ Use of such platforms would help to increase female labour-market participation, with benefits to growth.⁴

Financial inclusion: Digital inclusion is a prime access point for financial services, particularly in emerging economies where many men and women are unbanked and underserved with finance. Digital financial services could bring an additional 344 million Indians into the financial system, closing the financial inclusion gender gap by 16 percentage points.⁵

Healthcare: India has begun using digital technologies in healthcare, and in ways that close gender gaps. For instance, the government has launched a nationwide mobile health programme that aims to train one million community health workers who will reach ten million pregnant women and new mothers. By the end of 2016, 150,000 healthcare providers in four states had received training.⁶

¹ *India labour market update*, ILO Country Office for India, July 2016.

² *Women and the Web: Bridging the Internet gap and creating new global opportunities in low and middle-income countries*, Intel Corporation and Dalberg Global Development Advisors, January 2013.

³ “More women taking up odd jobs; opt to be cab drivers, guards”, Press Trust of India, June 6, 2016.

⁴ McKinsey research has found that improved job matching could add economic value of between \$63 billion and \$71 billion in 2025. Online talent platforms will also help to reduce attrition rates and provide the information needed to target investment in developing skills. See *A labor market that works: Connecting talent with opportunity in the digital age*, McKinsey Global Institute, June 2015.

⁵ *Digital finance for all: Powering inclusive growth in emerging economies*, McKinsey Global Institute, September 2016; and *India's tech opportunity: Transforming work, empowering people*, McKinsey Global Institute, December 2014.

⁶ *The state of broadband: Broadband catalyzing sustainable development*, Broadband Commission for Sustainable Development, September 2017.

If women in India were online to the same extent as men, some 135 million more women would have access to the internet.²⁷⁷

India is one of the largest connected markets in the world, with 429 million internet subscriptions.²⁷⁸ Access is growing rapidly. The share of the population using the internet jumped from 4 percent in 2007 to 33 percent in 2017—a compound annual growth rate of 27 percent.²⁷⁹ Previous MGI research found that the number of mobile internet users in India has the potential to reach 700 million to 900 million people by 2025.²⁸⁰

However, the benefits of digital connectivity for financial inclusion, income generation, and information sharing mean that rapidly expanding digital access for men risks exacerbating gender gaps. The gender divide on digital inclusion in India is the second-largest in Asia

²⁷⁷ Based on estimates of online usage by gender in October 2016 from Internet in India—2016: An IAMAI & KANTAR IMRB report, Internet and Mobile Association of India, and Kantar IMRB Technology Practice, 2016.

²⁷⁸ The Indian telecom services performance indicators July–September 2017, Telecom Regulatory Authority of India, December 28, 2017.

²⁷⁹ International Telecommunication Union (ITU).

²⁸⁰ India's technology opportunity: Transforming work, empowering people, McKinsey Global Institute, December 2014.

Box 10. Digital inclusion of women has a unique role in enabling a broad acceleration of gender equality (continued)

Education: Some blended learning projects—curricula combining digital and traditional components overseen by a teacher—show promise. In one randomised controlled trial in 2007 involving 111 schools in India, Year 4 students who participated in a computer-aided mathematics-focused learning programme increased their scores compared with the control group.⁷ A 2017 evaluation of a blended after-school learning programme for middle-school students revealed increased test scores in mathematics and Hindi after approximately five months. The programme provided individually customised educational content to match each student's level and rate of progress.⁸

Self-esteem and political voice: In a multicountry survey, more than 58 percent of female internet users said that they felt more autonomous and independent while using a mobile phone.⁹ In Uganda and Nigeria, studies have found that use of digital technology increased

women's self-esteem, wellbeing, and opportunities to achieve personal goals.¹⁰

Feelings of safety: In one survey, more than 68 percent of respondents said that they felt safer with a mobile phone. In addition to enabling women to call for help from the police or from a women's helpline in several states, mobile phones can be used as "personal guardians". They can, for instance, use the Fightback and Safetipin apps to track their movements, send SMS alerts if they run into danger, and check the safety of areas.¹¹

Access to markets and revenue opportunities: Digital platforms can eat up distance, connecting women in remote areas with limited mobility to markets. In India, Amazon's Saheli initiative and the government's Mahila E-haat online marketplaces provide women entrepreneurs with a platform to sell produce and goods. The Mahila E-haat digital marketplace registered 125,000 women when it launched in March 2016.

⁷ *The state of the world's children 2017: Children in a digital world*, UNICEF, 2017.

⁸ Ibid.

⁹ Estimates based on a survey of 11,000 respondents in 11 emerging economies. See *Bridging the gender gap: Mobile access and usage in low- and middle-income countries*, GSMA, 2015.

¹⁰ Florence Nameere Kivunike, Love Ekenberg, and Mats Danielson, "Perceptions of the role of ICT on quality of life of people in rural communities in Uganda", *Information Technology for Development*, volume 17, issue 1, 2011; and Wole Michael Olatokun, "Analysing socio-demographic differences in access and use of ICTs in Nigeria using the capability approach", *Issues in Informing Science and Information Technology*, volume 5, 2009.

¹¹ *Bridging the gender gap: Mobile access and usage in low- and middle-income countries*, Connected Women, GSMA, 2015; and *Women and the Web: Bridging the Internet gap and creating new global opportunities in low and middle-income countries*, Intel Corporation and Dalberg Global Development Advisors, January 2013.

Pacific (after Pakistan's), and there are some signs that inequality among men and women is widening. For instance, the gender gap in mobile phone ownership in India slightly increased from 31 percent in 2009 to 36 percent in 2015.²⁸¹ India could now usefully focus on what is required to capture the full value of digital technologies for women in terms of both access and adoption. There is a long way to go.

A major factor behind growing digital access has been greater affordability and infrastructure

The cost of mobile phones—for many Indians the only access point to the internet—has been the biggest obstacle to women's digital inclusion in India. Half of women in a 2015 survey said that the cost of a handset was a major barrier to owning a phone.²⁸² However, mobiles have become a great deal more affordable over the past ten years: the average sale price of smartphones fell by 45 percent to \$115 between 2012 and 2017. Between the first quarter of 2016 and the first quarter of 2017, the annualised cost of a one-gigabyte-per-month data plan fell from \$44 to \$23.²⁸³

Innovation in the telecommunications sector has driven down the prices of handsets, data, and voice significantly. For example, Reliance Jio's significant investment in its 4G network together with its shift to a voice-over-LTE model enabled the company to slash the prices of its data and voice packages. Other players also reduced prices.

Initiatives from the government are also making a difference. In 2006, the government set up Common Service Centres—assisted online access kiosks run by public-private partnerships. Local entrepreneurs set up the kiosks with basic computing infrastructure, run them, and are paid for every transaction, and the government allows them to be used for e-government services such as paying electric bills, obtaining information and application forms for government schemes, and applying for jobs.²⁸⁴ In 2015, the programme explicitly set the aim of encouraging women to become village entrepreneurs.²⁸⁵ As of September 2017, close to 270,000 kiosks have been set up in more than 162,000 rural villages, and 34,000 women entrepreneurs enabled.²⁸⁶

Low levels of digital literacy among women and social attitudes towards women's use of mobile and internet remain significant barriers

In order to make full use of digital technologies, people need to know how to use them. Digital literacy is increasingly a required skill for many jobs, and it opens new avenues for flexible and remote working that could help to boost women's labour-force participation.²⁸⁷ However, 35 percent of Indian women surveyed by GSMA (compared with 26 percent of male users) said that lack of knowledge about how to use the internet was a barrier. Further, Google finds that 49 percent of women said that they didn't see the value of the internet for them.²⁸⁸

²⁸¹ The gender gap is the difference between the male and female share of the population connected, divided by the proportion of male population connected. See *Women & mobile: A global opportunity*, GSMA Development Fund and Cherie Blair Foundation for Women, 2010; and *Bridging the gender gap: Mobile access and usage in low- and middle-income countries*, GSMA, 2015.

²⁸² *Accelerating affordable smartphone ownership in emerging markets*, GSMA, July 2017.

²⁸³ Mary Meeker, *Internet trends 2017*, Kleiner Perkins, May 31, 2017.

²⁸⁴ Anandita Jumde, *How Common Service Centres are revolutionising e-governance in rural India*, The Better India, May 31, 2016.

²⁸⁵ Rohit Prasad and Rupamanjari Sinha Ray, "Critique of the Common Service Centre scheme", *Economic & Political Weekly*, volume 47, issue 06, February 11, 2012; and CSC (Common Service Centres) Scheme 2.0, Government of India, Ministry of Electronics and Information Technology (<https://csc.gov.in/cscscheme>).

²⁸⁶ Anandita Jumde, *How Common Service Centres are revolutionising e-governance in rural India*, The Better India, May 31, 2016; and National Monthly Progress Report on CSC Scheme, November 2017.

²⁸⁷ *A labor market that works: Connecting talent with opportunity in the digital age*, McKinsey Global Institute, June 2015.

²⁸⁸ *Insights: India*, Womenwill, Google (<https://www.womenwill.com/intl/es/insights/india.html>).

Some initiatives have started to change this situation. In the Internet Saathi programme, a partnership between Tata Trust and Google India that started in July 2015, female entrepreneurs ride a bicycle carrying two smartphones and two tablets around villages to teach women how to use them. By the end of 2017, 33,000 female entrepreneurs had reached 125,000 villages and trained 13 million women.²⁸⁹

In households where budgets are highly constrained, men tend to get priority access to technology, and they may control whether a high-value item such as smartphone is purchased at all.²⁹⁰ For example, in one survey in New Delhi, 60 percent of men agreed that they have priority over women when it comes to accessing the internet.²⁹¹ Beyond budgetary constraints, there is still entrenched cultural opposition to girls and women using technology such as mobile phones and the internet. One village's governing body in rural Rajasthan stated that girls were not to use mobile phones or social media, and another in Uttar Pradesh implemented a 2,100-rupee fine for any girl using a mobile phone outside the home.²⁹² Even where there is no outright ban, women may be worried about the reaction if they use these technologies. There are reports of girls being prohibited from accessing the internet by their fathers or brothers.²⁹³ In one Google study, 79 percent of women agreed that society would judge them for using the internet; this was 30 percent higher than the average response in Asia Pacific.²⁹⁴ In another Google study, women reported a fear that they would anger their in-laws by spending time online; 19 percent suggested that they would do more online if they were "able to use the internet in private without fear of surveillance or criticism".²⁹⁵

INDIA HAS BOOSTED HOUSEHOLD INFRASTRUCTURE TO ADDRESS UNPAID CARE WORK: ACTUAL USE AND AFFORDABLE CHILDCARE ARE CRITICAL NEXT STEPS

High levels of unpaid care work correlate with reduced labour-force participation and lower-quality jobs for those who do participate. The World Bank estimates that a decrease in women's unpaid care work by an average of two hours per week is related to a ten-percentage-point increase in women's participation in the workforce.²⁹⁶

The amount of time women spend working in the home has other effects, too. For instance, women's family responsibilities mean that many work in the informal sector, and household obligations may compromise girls' education. One longitudinal study suggested that time spent on unpaid care work is the biggest contributor to the gender gap in secondary school completion. Girls who do two hours of housework per day have a 63 percent probability of finishing secondary school, compared with 84 percent for boys with the same amount of housework.²⁹⁷ Family responsibilities may also affect women's digital access. One Google

²⁸⁹ *Doorway to a new world*, Tata Trusts, January 2018.

²⁹⁰ This behaviour reflects a fundamental attitude prevalent in India that men should earn and be in control of finances. In the World Values Survey, 33 percent of Indians agreed that "when a woman earns more money than her husband, it is almost certain to cause problems". This is the second-highest percentage in Asia, after Pakistan at 35 percent. See *Accelerating affordable smartphone ownership in emerging markets*, GSMA, July 2017.

²⁹¹ *Women's rights online*, World Wide Web Foundation (<https://webfoundation.org/our-work/projects/womens-rights-online/>).

²⁹² *The state of the world's children 2017: Children in a digital world*, UNICEF, 2017.

²⁹³ Feminist Approach to Technology. These restrictions are even more common in terms of limiting (rather than prohibiting) use. More than half of men in one survey in New Delhi agreed that men have the responsibility to restrict what women access on the internet, and 65 percent agreed that women should be restricted from using the internet in public places on their own. See *Women's rights online*, World Wide Web Foundation (<https://webfoundation.org/our-work/projects/womens-rights-online/>).

²⁹⁴ *Insights: India*, Womenwill, Google (<https://www.womenwill.com/insights/india/>).

²⁹⁵ *Ibid.*

²⁹⁶ Gaëlle Ferrant, Luca Maria Pesando, and Keiko Nowacka, *Unpaid care work: The missing link in the analysis of gender gaps in labour outcomes*, OECD Development Centre, December 2014.

²⁹⁷ Renu Singh and Protap Mukherjee, "Whatever she may study, she can't escape from washing dishes': Gender inequity in secondary education—evidence from a longitudinal study in India", *Compare: A Journal of Comparative and International Education*, volume 48, issue 2, 2018.

survey found that “not having time available” due to housework was the second-largest barrier for women getting online.²⁹⁸

We now look at two aspects of unpaid care work—routine housework and childcare—to explore ways in which these responsibilities can be discharged to free up time for women.

India has made strides on improving household infrastructure, but there is still a long way to go

The availability of household infrastructure such as clean running water, more effective fuels for cooking, and sanitation has a significant impact on the time women devote to routine housework such as cleaning, laundry, cooking, gathering firewood for fuel, and accompanying children to the toilet. Housework accounts for 85 percent of the time women in India spend on unpaid care work. One study in three states of India, as well as Nepal and Bangladesh, found an average saving of 30 to 70 minutes per day through the use of improved cooking stoves alone.

Provision of household infrastructure in India lags behind that of other economies at similar stages of economic development. In 2014, 79 percent of the Indian population had access to electricity, well below the median for low- to upper-middle-income nations of 91 percent. In 2015, 40 percent of the population had access to proper sanitation, compared with the median of 73 percent. The picture is slightly more positive on the supply of clean water: 94 percent of the Indian population had access in 2015, slightly above the median for low- to upper-middle-income nations of 91 percent, but still below the top quartile of these countries at above 97 percent.²⁹⁹

In the recent past, India has prioritised the development of household infrastructure and has achieved significant improvements (Exhibit 27). Access to clean drinking water and sanitary toilets has doubled, and access to clean cooking fuel has increased by 51 percent. Yet there is still a long way to go. In 2017, 22 percent of households still lacked clean water, 32 percent did not have quality sanitation, and 56 percent were without access to clean fuel. The lack of clean fuel is particularly extreme in rural areas, where only 24 percent of households have access, compared with 81 percent of urban households. Infrastructure needs are more acute in some provinces than in others. For instance, Goa, Gujarat, and Madhya Pradesh have 100 percent access to clean water, but that figure is only 38 percent in Meghalaya.³⁰⁰ Similarly, 99 percent of households have access to sanitation in Himachal Pradesh and Sikkim, but only 34 percent in Bihar.

The quality as well as the quantity of India’s household infrastructure remains a concern. Since the majority of the drinking water supply comes from groundwater, which has significant contamination problems, the quality of water is substandard with significant risks to health—which, in turn, can compromise women’s ability to participate in the labour force.³⁰¹ Women may become ill and unable to work, or their children can become sick, which means women need to care for them at home.

²⁹⁸ *Insights: India*, Womenwill, Google (<https://www.womenwill.com/intl/es/insights/india.html>).

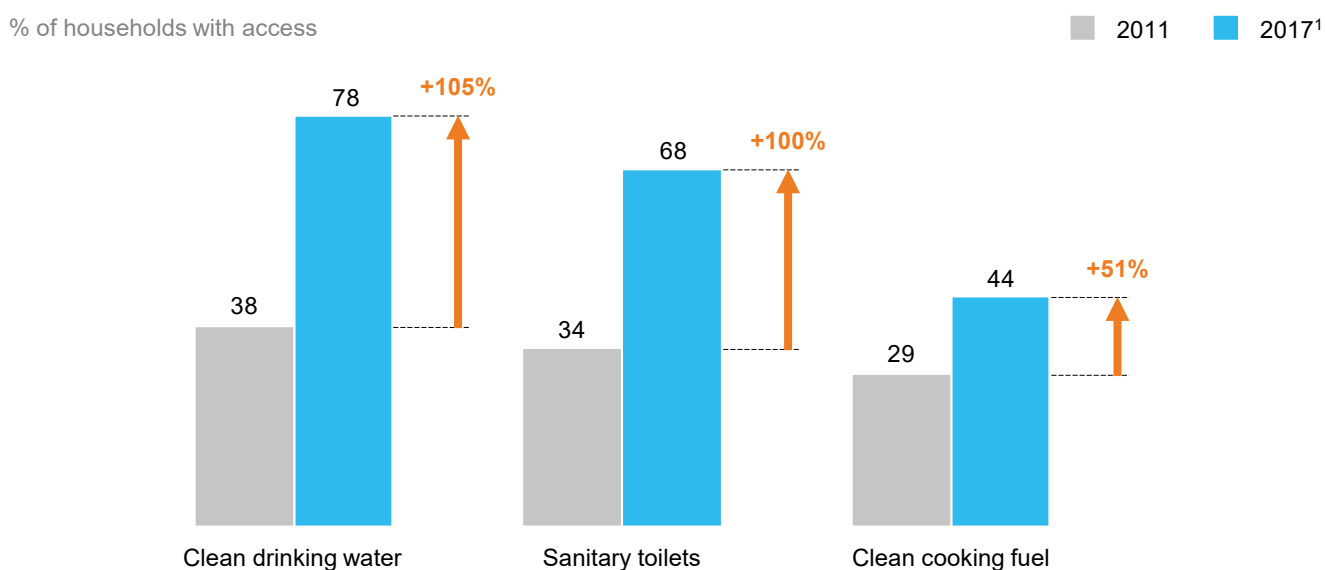
²⁹⁹ All statistics are for the latest available year in India compared with the latest available data for other countries (excluding high-income nations).

³⁰⁰ The current definition of clean water may overstate household access. Using the Sustainable Development Goal definition, clean water access in rural areas drops to 49 percent. See *End of mission statement by the special rapporteur on the human rights to safe drinking water and sanitation Mr. Léo Heller*, UN Office of the High Commissioner for Human Rights, November 10, 2017.

³⁰¹ *Ibid.*

Exhibit 27

India has achieved significant improvements in access to household infrastructure since 2011



1 Clean drinking water as of April 2017; sanitary toilets as of May 2017; clean cooking fuel as of December 2016.

SOURCE: National Rural Drinking Water Programme; Atal Mission for Rejuvenation and Urban Transformation; Swachh Bharat Mission; National Family Health Survey 4; National Census, 2011; McKinsey Global Institute analysis

A number of government programmes have facilitated India's rapid progress. These experiments in transformation highlight what is achievable even with limited time and resources, but also the challenge of increasing use of what is on offer. We highlight three examples:

- **Clean cooking fuel:** Pradhan Mantri Ujjwala Yojana, a government scheme launched in 2015, aims to provide free liquefied petroleum gas connections to around 50 million families currently below the poverty line by 2019; only women are allowed to apply. In 2016–17, 20 million connections were issued, outstripping the target of 15 million. The results of the scheme suggest that continuing to revise and roll out the plan is worthwhile. One assessment revealed that cooking on gas stoves helped save one to two hours a day (time spent both cooking and collecting firewood), which women used for leisure activities or other household pursuits.³⁰² However, the fact that families then have to pay for a refill (even at a subsidised rate) of the gas cylinder means that many families only use the first one; India's Economic Survey found that 79 percent of households issued the cylinders between May 2016 and April 2017 came back and refilled them, on average four times.³⁰³ But in the future, an active demand-creation strategy (centred on the health benefits to women, for example) will be needed if India is to continue to increase the number of households with clean fuel.³⁰⁴
- **Electricity connections:** Deen Dayal Upadhyaya Gram Jyoti Yojana, a government scheme set up in 2015, aims to universalise electricity connections, which is expected to benefit women more than men. Much of the time spent in rural households finding biomass to meet energy needs falls upon women, and women are also more likely to

³⁰² Surabhi Twesh Mishra, "Modi govt's Ujjwala scheme leaves women healthier, happier", *The Hindu Business Line*, May 7, 2017.

³⁰³ "State of the economy: An analytical overview and outlook for policy", in *Economic survey 2017–18, volume 1*, Government of India, January 2018.

³⁰⁴ *Digital financial inclusion India—a growth trajectory*, MicroSave, October 2013–March 2017 (http://www.microsave.net/files/pdf/GSI_Feasibility_Statement.pdf).

feel unsafe or be less mobile in poorly lit villages. So far, 99.8 percent of 597,000 census villages have been electrified.³⁰⁵ Even now, however, only 8 percent of villages have 100 percent of households electrified.³⁰⁶ Expansion of the scheme, more reliable supply, and making connections more affordable are arguably the next priorities.³⁰⁷

- **Improved sanitation:** Swachh Bharat Abhiyan (Clean India Mission), started in late 2014 and championed by the prime minister, aims to end open defecation by building individual and community toilets. This practice typically affects women more than men: they take more time because they travel longer distances to find more private locations, they make more trips because they accompany their children, and the journey can present a significant threat to women's safety.³⁰⁸ Women were made an explicit priority of this initiative in 2015. In May 2015, for instance, companies pledged to build 3,195 toilets in schools for girls by 2019. To date, more than 60 million toilets have been constructed, and over 300,000 villages have been certified as being free of open defecation.³⁰⁹ However, there are concerns about whether toilets are being used in light of reluctance in communities and insufficient maintenance.³¹⁰

There is still a long way to go to capture the full benefits of household infrastructure on women's time. India can leverage its strengths by rolling out transformational programmes, increasing utilisation, and learning from what has already worked when deploying new initiatives. More work could also usefully be put into education and awareness-building efforts, and to improve the quality and lower the cost of household infrastructure services.

Encouraging uptake of childcare will provide women with more realistic options to participate in the labour force—and accelerate childhood development

The availability of affordable, high-quality childcare provides women with the option of reducing the hours they spend on unpaid care work and increasing their labour-force participation. Women's work-life balance is not the only issue—quality childcare also offers valuable benefits for children, such as mental stimulation and acting as a channel through which to provide nutrition at a critical stage of development. There is also evidence from India that providing early-childhood education increases the likelihood that children will stay in school.³¹¹ Enrolment in childcare and early-childhood education in India is growing fast but remains very low.³¹²

Childcare is expensive for families without financial support from either the government or employers, and the Indian government has taken a number of steps to tackle this issue. For women working in the formal sector, the government requires companies with more than 50 employees to provide sponsored childcare at a crèche at or near the work site, and gives tax benefits to companies to incentivise compliance. Many companies have responded

³⁰⁵ The scheme's website has a live tally of households that have been connected to the electricity supply (<http://www.ddugjy.gov.in/mis/portal/index.jsp>).

³⁰⁶ Pradhan Mantri Ujjwala Yojana Saubhagya dashboard (<http://saubhagya.gov.in/dashboard>).

³⁰⁷ CP Chandrasekhar and Jayati Ghosh, "Are Modi government's power promises being fulfilled?" *The Hindu Business Line*, January 30, 2017.

³⁰⁸ Women who practice open defecation are twice as likely to experience non-partner sexual violence. See Apoorva Jadhav, Abigail Weitzman, Emily Smith-Greenawam, "Household sanitation facilities and women's risk of non-partner sexual violence in India", *BMC Public Health*, 2016.

³⁰⁹ *Household toilet coverage across India*, Swachh Bharat Mission (<http://sbm.gov.in/sbmdashboard/IHHL.aspx>).

³¹⁰ Such a concern was raised by the United Nations. See *End of mission statement by the special rapporteur on the human rights to safe drinking water and sanitation Mr. Léo Heller*, UN Office of the High Commissioner for Human Rights, November 10, 2017. However, surveys conducted by the National Sample Survey Office and the Quality Council of India report that more than 90 percent of individuals with access to toilets were using them in 2017.

³¹¹ Edward Melhuish and Konstantinos Petrogiannis, eds., *Early childhood care and education: International perspectives*, Routledge, 2006.

³¹² Between 2001 and 2015, rates of enrolment in pre-primary education increased 3.5 times, but this still left India with a 12 percent gross enrolment rate, the lowest in Asia, according to the World Bank.

positively to this initiative, seeing it as a way to attract talent and invest in quality. For example, global IT consulting firm Mindtree performs quality benchmarking on its childcare providers every three years (when the contract is up for renewal) to ensure that they meet the highest standards. It also provides referrals for employees to help them find additional out-of-hours care.

The government runs a number of crèche and childcare programmes targeted at low-income women for whom employer-sponsored childcare is not an option. The Rajiv Gandhi scheme is a pan-India initiative that provides daycare and sleeping facilities as well as supplementary nutrition for children from six months to six years old whose mothers work, with priority given to poor children and those with special nutritional needs. As of January 2015, there were 23,293 functional crèches, and 71 million children and 15 million mothers had benefited from supplementary nutrition. The Integrated Child Development Service is the world's largest childhood programme, with centres nationwide focusing on disadvantaged communities. It covers a range of services including family planning, maternal health, nutrition, childcare, and pre-school. A survey in 2016 found that 54 percent of children receive at least one service from these centres, and 38 percent of children aged three to six received early-childhood care.³¹³

Despite these steps, the quality of childcare in general tends to be low, increasing the pressure on mothers to leave paid employment.³¹⁴ Childcare workers lack adequate training, and a lack of remuneration means that this sector does not attract the talent it needs.³¹⁵ Moreover, social attitudes discourage women from using formal childcare. Indians continue to regard the family (parents and grandparents) as having the primary responsibility for childcare.³¹⁶ As noted, 71 percent of respondents in India agreed or strongly agreed with the World Values Survey statement “When a mother works for pay, the children suffer”. Shifting these attitudes is critical before formal childcare and childhood education are realistic options for more Indian women.

INDIA CAN CONSIDER SEVERAL STEPS TO ACCELERATE PROGRESS

MGI's 2015 report on the power of parity in India highlighted eight areas on which policy makers, business leaders, and the social sector could focus. They were (1) closing gender gaps in secondary and tertiary education in India's large states; (2) lowering barriers to job creation; (3) expanding skills training for women in key sectors; (4) expanding the reach of financial and digital services to enable women entrepreneurs; (5) stepping up gender diversity policies and practices in private-sector organisations; (6) further strengthening legal provisions for women and the enforcement of laws; (7) improving infrastructure and services to address the large amount of time spent on routine domestic work, childcare, and care for the elderly; and (8) reshaping deep-rooted attitudes about the role of women in work and in society. Here we emphasise some of the themes from our earlier research and in addition focus on two key areas: digital and financial inclusion, and household infrastructure and childcare services.

1. Make a concerted effort to expand job opportunities for women in the workforce

India should consider redoubling reforms to increase investment and job creation with an additional focus on improving women's representation in the economy. Both the government and the private sector have critical roles to play:

³¹³ *National Family Health Survey (NFHS-4), 2015–16*, Government of India, Ministry of Health and Family Welfare, December 2017.

³¹⁴ *Tackling childcare: The business case for employer-supported childcare*, International Finance Corporation, 2017.

³¹⁵ Amrita Jain, *Early childhood—key issues, challenges and approaches in the Indian context* (http://portal.oas.org/LinkClick.aspx?fileticket=HCQt_dMDkY0%3D&tabid=1282&mid=3694).

³¹⁶ Edward Melhuish and Konstantinos Petrogiannis, eds., *Early childhood care and education: International perspectives*, Routledge, 2006.

- **Stimulate creation of high-quality jobs and skills training, starting in sectors where women are established:** Efforts to empower India's women economically will require lowering or dismantling barriers to job creation in tandem with programmes to boost the supply of skilled women. In the short term, such efforts could focus on sectors where women have already shown interest. For example, our previous research has found that textiles and garments, healthcare services, beauty services, and IT-enabled services already draw a relatively large proportion of women, while growth sectors such as leisure and hospitality (tourism services) and electronics assembly and manufacturing also hold promise. MGI's previous research revealed that almost three-quarters of the vocational courses chosen by women in India relate to textiles and garments, computers, healthcare, and beauty services. Tourism services and manufacturing (other than of garments) do not yet figure among the top five areas in which women acquire vocational training, indicating the need for more women-oriented skills programmes in these sectors.³¹⁷
- **Enhance commitment to, and policies for, gender balance in the corporate sector among employees and in supply chains:** As discussed in Chapter 1, the corporate sector offers a mixed picture in terms of gender diversity. More organisations can make a clear case for gender balance linked to business goals, with supportive workplace policies that promote flexible working and enable women to advance their careers. While this is a priority throughout Asia Pacific, it is striking that in India “the lack of specific company measures to recruit, retain, promote, and develop women” is the most important barrier to increasing gender diversity in leadership positions, and the double burden for women of balancing work and domestic responsibilities is the next-highest hindrance (see Chapter 1). Beyond hiring and retaining more women as employees in their own organisations, corporations can also train and equip women as entrepreneurs in their supply chains and distribution channels.

2. Accelerate progress on digital and financial inclusion of women and link it with economic empowerment

India can step up efforts to improve women's digital literacy and design measures to improve acceptance of women using digital technologies and accessing finance:

- **Accelerate roll-out of digital literacy initiatives for women and innovative financial products for female entrepreneurs:** The Internet Saathi movement is one approach that shows promise in being able to accelerate digital literacy in rural areas. Other innovative initiatives come at the problem in different ways. For example, #PositionOfStrength engages young women on Twitter to brainstorm ideas for empowering women online. Continuing to scale up these initiatives will help give women the skills and confidence to access the internet. For female entrepreneurs, Mudra has begun to reduce the financing gap by allocating funds equally to men and women. However, there is still scope to further prioritise financing of female entrepreneurs to bridge the gender capital gap.
- **Expand business training and connectivity to markets for individual women, collectives, and producer companies through digital platforms targeting women entrepreneurs:** An important part of the promise of digital inclusion is its potential to enable women to generate more income. Digital technology can enable women in remote areas to find jobs, and to increase their income when they have jobs, by becoming connected to larger markets, sending and receiving payments, and performing other business activities. A key part of this effort will be increasing the use of online talent platforms, particularly platforms that target women such as JobsForHer, Heroines, AVTAR I-WIN, and GharSeNaukri. Moreover, mere access to a phone or

³¹⁷ *The power of parity: Advancing women's equality in India*, McKinsey Global Institute, November 2015.

internet connection is not sufficient. Women need to be equipped with the knowledge, skills, and resources to convert digital access into income generation. Several government, NGO, and business initiatives that focus on skills development could be made more effective and expanded. India's government can continue to develop and expand its Mahila E-Haat online marketplace. The Government eMarketplace, India's national public procurement portal, could pursue similar efforts to enrol more women entrepreneurs. NGO Swayam Shikshan Prayog's Arogya Sakhi programme uses a mobile application that assists women in becoming health entrepreneurs delivering antenatal and infancy care. The Mann Deshi Foundation in rural Maharashtra promotes digital banking and financial services tailored for rural women, along with business training programmes. The Self-Employed Women's Association has set up an ICT School for Empowerment of Women in the states of Bihar and Gujarat, which provides women with training in employable skills in software, internet, and business process outsourcing. The association, along with the Cherie Blair Foundation and Vodafone, has developed a mobile-based app management solution called RUDI Sandesh Vyavahar to enable women in its rural distribution network to order and manage stock, sales, and supply-chain flows in distant villages in a secure electronic format.

3. Continue to expand access to household infrastructure to reduce unpaid care work

- **Sustain the roll-out of household infrastructure and services (for example, water, sanitation, and clean cooking fuel):** India is clearly making progress on access to household infrastructure, and these efforts should continue.
- **Increase utilisation through supply and demand levers (for example, quality, cost, education, and awareness):** In addition to increasing supply, initiatives to increase use of the infrastructure are critical. In large part, use can be addressed by increasing the quality of infrastructure, reducing perceived costs, and educating people on the benefits of use. In the case of public toilets, tracking and incentivising more regular maintenance may help ensure ongoing usage. Similarly, ensuring that electricity networks are more reliable should become a focus. On cost, there are two key opportunities: reduce prices through increased efficiency or greater subsidies, and educate people about the hidden financial trade-offs (for instance, the value of time savings vs. upfront and ongoing costs). Education on the broader health benefits of household infrastructure through public-awareness campaigns can also drive its use.

4. Increase accessibility and uptake of childcare

The affordability of childcare is a significant issue, especially for the 120 million women who work in India's informal sector and do not have access to employer-provided childcare.³¹⁸ India might consider measures that encourage women in both the informal and formal sectors to use childcare options when available, that improve quality, and that help shift social attitudes. Four potential priorities that India could consider are:

- **Increase investment in childcare and scale up existing initiatives:** Only a small proportion of India's central budget is allocated to young children.³¹⁹ Further investment in expanding programmes such as the National Creche Scheme and Integrated Child Development Service will increase options for women in the informal sector. In addition, scaling up NGO initiatives such as mobile crèches and Mumbai-based Annapurna Mahila Mandal, which educates women on a range of topics including health and nutrition and childcare, can help fill the care gap where government services are unavailable or too far away from the work site.

³¹⁸ Diptirekha Mohapatra, *Female workers in the unorganised sector in India*, International Conference on Studies in Humanities and Social Sciences, July 29–30, Phuket, Thailand, 2015.

³¹⁹ This figure was 1 percent in 2008. Amrita Jain, *Early childhood—key issues, challenges and approaches in the Indian context*, 2008.

- Strengthen and enforce national standards on childcare quality, including more training for carers:** India doesn't have extensive national standards or certifications for the care of children, such as mandatory pupil-to-teacher ratios, teacher-training standards, or a regulatory body to enforce quality.³²⁰ This reduces incentives for childcare providers to raise quality and makes it more difficult for parents to find and evaluate good childcare options. Expanding and improving training for childcare workers is needed to raise quality. The provision of simplified but detailed teaching materials for childcare workers is one option that could be considered.³²¹
- Invest in high-quality employer-provided childcare and learn from best practices:** High-quality on-site crèches benefit businesses by helping them to attract and retain talented people—an important consideration given skills shortages in many areas. Mindtree has prioritised childcare and enjoys a 90 percent retention rate of female employees after maternity leave, much higher than the Indian average.³²² Better collaboration on employer-provided care is another opportunity. NASSCOM, the industry association of India's IT and business-processing sector, offers resources to employers providing childcare in the industry. More such collaborations to share best practices could be valuable.

5. Invest in shifting attitudes about the role of women in society and work

- Intensify public-awareness campaigns to communicate the value of girls and women in society:** Government efforts through schemes such as Beti Bachao Beti Padhao and Sukanya Samridhi Yojana to address biases towards the girl child must be sustained and examples of impact celebrated. The government, in cooperation with the private sector and NGOs, can intensify public-awareness campaigns to communicate the value of girls and women in society and within the family. Procter & Gamble's #SharetheLoad campaign, aimed at encouraging men to participate more in housework, is one example. Another is Main Kuch Bhi Kar Sakti Hoon, a "transmedia" (multiple-platform) education campaign coupled with evaluation of its impact on knowledge, attitudes, and practices on a range of gender issues.³²³ Evaluating impact is vital in order to prove the value of such campaigns and to enable experimentation to increase their effectiveness. In addition to implementing campaigns, the private sector could also come together to recognise companies that support attitudinal change. For instance, industry awards (like the Clio Awards in advertising) could reward gender-equitable work
- Put the spotlight on gender data, with a new focus on women in the workforce in states, sectors, and organisations:** Working with other stakeholders, the government could publish data on gender equality in states. While the data currently emphasise women's education and maternal and child health, the focus can be expanded to include workforce dimensions such as labour-force participation, job quality, the gender pay gap, and the share of women in leadership positions. Data comparing states, sectors, and types of organisations could spur higher public awareness and competition in the government and private sector that would lead to more progress on advancing women's equality.

³²⁰ *Tackling childcare: The business case for employer-supported childcare*, International Finance Corporation, 2017.

³²¹ Margaret Khalakdina, *Early child care in India*, Routledge, March 2017.

³²² *Tackling childcare: The business case for employer-supported childcare*, International Finance Corporation, 2017.

³²³ The evaluation undertaken after the first season of the campaign found a measurable increase in viewers' knowledge and perceptions of the value of women. See *Annual report 2015–16*, Population Foundation of India, 2016 (<http://www.populationfoundation.in/Publications/view/21/10>).

- **Engage community leaders and individuals on the value of women’s digital and financial empowerment:** Societal attitudes need to take into account the value—to families and to women themselves—of empowering women to make household financial decisions and of enabling them to access technology more broadly. Several initiatives in India show promise on this front and can be emulated. Some groups in India, such as Feminist Approach to Technology, have begun to tackle attitudes, but they are still operating on a small scale. Shifting the perceptions of community leaders (in addition to key decision makers in families) is important, particularly in areas where there are formal bans against women’s use of technology.
- **Educate individuals on the value of childcare:** Mothers (and fathers) won’t take up childcare if they don’t view it as valuable and appropriate. While the recent government step to make 26 weeks of maternity leave mandatory is welcome, measures are also needed to change attitudes towards early-childhood care beyond the initial period. Many Indians regard early-childhood education negatively despite evidence that it improves children’s cognitive, social, and emotional competence.³²⁴ Some companies have engaged with employees at key moments, making the case for using their childcare facilities. Mindtree explicitly reached out to the families of women considering putting their children into the company’s workplace crèche, knowing that the whole family must be convinced of the quality of care.³²⁵ Role modelling is another useful approach. The Bank of Tokyo-Mitsubishi UFJ highlights male and female role models in its organisation to show that it is possible to be both an active parent and a successful employee. Another option is community learning forums that connect women to others making use of childcare options and facilitate discussions about their experiences; communication like this may ease parents’ fears and make them feel more confident about the benefits of formal childcare.



India is moving in the right direction on empowering women, with the fastest progress on some dimensions of any country in Asia Pacific over the past ten years. Now India has an opportunity to build on this foundation by focusing not only on enabling more women to rise to leadership positions in the organised sector, but also on enabling women in the informal sector—many of them in rural and urban microenterprises and in unpaid work—to fulfil more of their economic potential. Each area of progress has opened up new scope for action. Access to the internet and digital technologies has soared. A potential next step for India is helping women develop their digital literacy and shifting societal attitudes that still militate against them making full use of these technologies, especially for income generation. India has made great strides in expanding the household infrastructure that can save so much of women’s time spent on household chores. The next stage is to ensure that women have access to affordable childcare so they can work for pay if they so choose. Tackling gender inequality is a complex, long-term challenge, and an ongoing search for new ways to unleash the potential of its women will be critical.

³²⁴ Amer Hasan, Marilou Hyson, and Mae Chu Chang, eds., *Early childhood education and development in poor villages in Indonesia: Strong foundations, later success*, World Bank, 2013.

³²⁵ *Ibid.*



5. INDONESIA

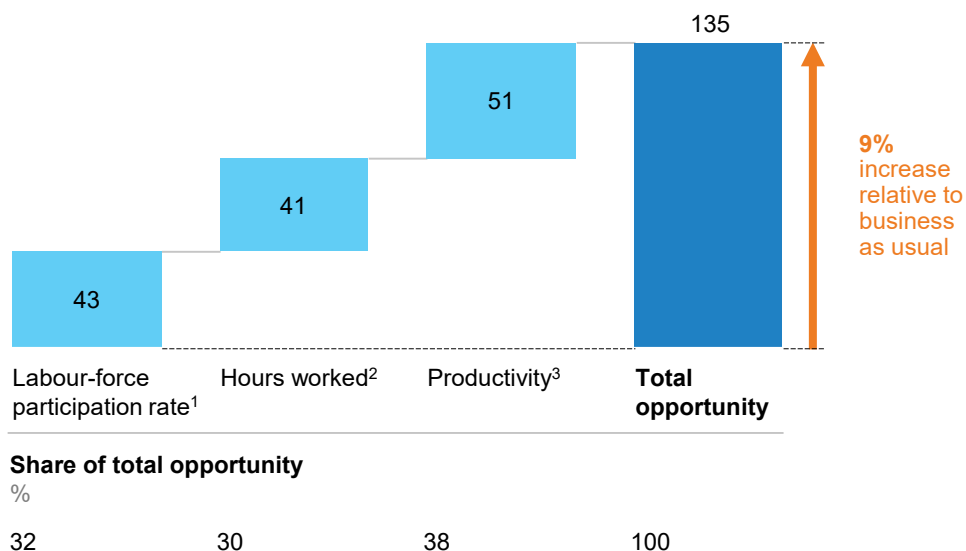
Indonesia could add \$135 billion a year to annual GDP by 2025—9 percent above business as usual—in a best-in-region scenario (Exhibit 28). All three drivers of additional economic value make similar contributions: higher female labour-force participation, a higher share of women working full time rather than part time, and more women working in higher-productivity sectors such as manufacturing instead of agriculture.

Exhibit 28

Indonesia could add \$135 billion to annual GDP by 2025—9 percent above business as usual

Incremental 2025 GDP from improving gender equality in the best-in-region scenario, relative to the business-as-usual scenario

\$ billion, in 2014 dollars



1 Implies female labour-force participation rate increasing from 50% in 2014 to 56% in the 2025 best-in-region scenario.

2 Implies full-time equivalent rate for females increasing from 89% in 2014 to 95% in the 2025 best-in-region scenario.

3 Implies weighted productivity for females increasing from \$6,000 in 2014 to \$11,000 in the 2025 best-in-region scenario.

NOTE: Numbers may not sum due to rounding.

SOURCE: McKinsey Global Institute analysis



Indonesia



GDP opportunity from advancing women's equality¹

\$135 billion

added to annual GDP by 2025

or

9%

over business-as-usual GDP by 2025



Gender inequality today²

Level of gender inequality

Extremely high
0 – 0.50

High
0.50 – 0.75

Medium
0.75 – 0.95

Low
0.95 – 1.00

Indonesia

Asia Pacific best

Asia Pacific average

Global best

Gender equality in work

0.52

0.73

0.44

0.73

Gender equality in society



Essential services and enablers of economic opportunity

0.88

0.96

0.85

0.97



Legal protection and political voice

0.37

0.66

0.32

0.84



Physical security and autonomy

0.82

0.96

0.82

0.97



Potential measures to capture the GDP opportunity

Government



Legislate and enforce greater protection for women (e.g., mandate paternity leave and prevent sexual harassment)



Continue to expand access to infrastructure to reduce unpaid care work



Increase instruction in digital skills and entrepreneurship in the early years of secondary school



Invest in shifting attitudes about the role of women in society and work (e.g., awareness campaigns)

Companies



Promote diversity policies (e.g., business case, diversity targets and flexible work options)



Educate and activate networks of male champions and of women's learning groups



Drive digital access, skills development, and business training for female entrepreneurs

1 GDP opportunity in scenario where all countries match their best-in-region country in progress towards gender parity.

2 GPS scores are made up of 15 indicators of gender equality in work and society, weighted equally. GPS runs from

0 (no gender equality) to 1.0 (parity); for instance, a 0.95 ratio represents 5% distance from gender parity.

SOURCE: McKinsey Global Institute analysis

While Indonesia has reduced gender inequality on education and made progress on reducing maternal mortality over the past decade, pockets of extreme inequality remain, including the share of women in leading positions in business and politics, and legal protection of women. Progress on female labour-force participation has been minimal. Despite making up 38 percent of the labour force, Indonesia's women contribute only 29 percent to GDP—the fourth-lowest share in the region.

In this chapter, we provide an overview of Indonesia's performance on gender inequality and detail two key aspects of the country's challenge, both focused on enabling female labour-force participation. First, we examine the need to improve infrastructure to reduce the high share of unpaid care work undertaken by women and enable them to make a greater contribution to GDP. Second, we look at Indonesia's opportunity to use digital means to unlock women's entrepreneurship, increase economic growth, and accelerate progress towards gender equality in work.

INDONESIA PERFORMS SLIGHTLY BETTER THAN THE ASIA PACIFIC AVERAGE ON GENDER EQUALITY, AND HAS LARGE SCOPE TO INCREASE WOMEN'S PARTICIPATION

Indonesia has progressed further than the average in Asia Pacific towards gender parity in work but remains some distance from best in region. On two indicators of gender equality in work—female-to-male labour-force participation ratio and leadership positions—Indonesia is far from the progress of the best in region. Indonesia is somewhat closer to parity on essential services and enablers of economic opportunity, reflecting its ranking near best in region on education.³²⁶ Advances in education for girls over the past 20 years have resulted from an increase in funding and national policy changes aimed at boosting the quality of education.³²⁷ Girls' secondary enrolment nearly doubled between 1995 and 2014 to 75 percent. This closed the gap between girls and boys by 0.13 index point, above the Southeast Asian average of 0.10. Indonesia has also made rapid progress on maternal mortality, which fell from 212 deaths per 100,000 live births in 2005 to 126 in 2015, according to World Health Organization data. Nevertheless, maternal mortality remains high.³²⁸ On the other two dimensions of gender equality in society—legal protection and political voice, and physical security and autonomy—Indonesia's progress is in line with the regional average (Exhibit 29). Gender equality indicators vary significantly within Indonesia (see Box 11, "Significant variation on gender indicators reveals additional regional priorities").

³²⁶ While this is good news, there is scope for further improvements in the Indonesian education system. Regional variation on gender inequality is high, for example, with parity indices varying by 0.4 point in secondary and 0.7 point in tertiary education. Moreover, gender parity is not the only goal of education—Indonesia could achieve gender parity but at a low level of educational attainment for both boys and girls. Indonesia's OECD Programme for International Student Assessment (PISA) scores suggest this may be the case (see Box 12 for more detail).

³²⁷ For example, national teacher certification requirements were adjusted and a framework of National Standards for Education was introduced. See *World Bank and education in Indonesia*, World Bank, September 1, 2014. Indonesia's gender inequality on education was high (0.72) in 2004, the first year with complete data.

³²⁸ There is some debate on the extent of progress on maternal mortality, and some researchers have found that maternal mortality rates may be higher than indicated by the statistics shared here. See, for example, *Understanding the causes of maternal mortality in Indonesia*, technical note, MAMPU and the Australian Government, June 2016.

Exhibit 29

Indonesia performs well on education but has high or extremely high gender inequality on seven indicators

Level of gender inequality ■ Extremely high ■ High ■ Medium ■ Low

	Indonesia	Asia Pacific best	Asia Pacific average ¹	Global best
Gender equality in work	0.52	0.73	0.44	0.73
Labour-force participation rate F/M ratio	0.61	0.93	0.60	1.00
Professional and technical jobs F/M ratio	0.94	1.42	0.95	2.66
Perceived wage gap for similar work F/M ratio	0.63	0.78	0.56	0.86
Leadership positions F/M ratio	0.30	0.96	0.25	1.13
Unpaid care work M/F ratio	No data	0.58	0.25	0.85
Gender equality in society				
Essential services and enablers of economic opportunity	0.88	0.96	0.85	0.97
Unmet need for family planning % of women	12	4	10	4
Maternal mortality Per 100,000 births	126	5	102	3
Education level F/M ratio	0.98	1.00	0.92	1.00
Financial inclusion F/M ratio	0.81	1.00	0.76	1.00
Digital inclusion F/M ratio	0.86	1.00	0.77	1.00
Legal protection and political voice	0.37	0.66	0.32	0.84
Legal protection index	0.45	1.00	0.47	1.00
Political representation F/M ratio	0.29	0.55	0.19	0.93
Physical security and autonomy	0.82	0.96	0.82	0.97
Sex ratio at birth M/F ratio	1.05	1.03	1.11	1.02
Child marriage % of girls and young women	26	0	14	0
Violence against women % of women	No data	14	28	6

¹ Weighted average based on 2016 female population.

SOURCE: McKinsey Global Institute analysis

Box 11. Significant variation on gender indicators reveals additional regional priorities

Indonesia's regions exhibit large differences in performance (Exhibit 30).¹ For instance, gender gaps on labour-force participation are very large in North Kalimantan and West Java. Five Indonesian regions still report extremely high maternal mortality, but seven have narrowed gender gaps on internet use considerably.

The reasons for these variations are complex. MGI's global report found that per capita GDP and urbanisation are strongly linked to all aspects of gender equality in society.² However, this link is weaker in the case of Indonesia. Geography also plays a role: Indonesia's islands and mountains make providing infrastructure across all regions difficult. In addition, research has posited other drivers, including high levels of policy decentralisation, the rapid pace at which decentralisation occurred (leading to differences in capability at the regional governance level), and disparate resource allocation throughout regions.³

¹ On six out of ten indicators for which we have regional-level data, Indonesia's regions span three levels of gender inequality.

² *The power of parity: How advancing women's equality can add \$12 trillion to global growth*, McKinsey Global Institute, September 2015.

³ Coen J. G. Holtzappel and Martin Ramstedt, eds., *Decentralization and regional autonomy in Indonesia: Implementation and challenges*, Institute of Southeast Asian Studies and International Institute for Asian Studies, 2009; and *Decentralizing Indonesia: A regional public expenditure review overview report*, World Bank, 2003.

Exhibit 30

Indonesia's regions vary in gender inequality (1 of 2)

Level of gender inequality ■ Extremely high ■ High ■ Medium ■ Low

	Gender equality in society						
	Gender equality in work		Essential services and enablers of opportunity				
	Population Million	Per capita GRP Indonesian rupiah (million)	Labour-force participation rate F/M ratio	Professional jobs F/M ratio	Family planning % unmet need	Maternal mortality Per 100,000 live births	Adult literacy F/M ratio
West Java	47.4	35	0.50	0.98	11	87	0.98
East Java	39.1	47	0.64	1.32	10	104	0.93
Central Java	34.1	32	0.67	1.34	11	95	0.93
North Sumatra	14.1	45	0.67	1.54	14	110	0.99
Banten	12.2	42	0.56	0.88	11	74	0.98
DKI Jakarta	10.3	212	0.61	0.99	14	60	0.99
South Sulawesi	8.6	44	0.60	1.71	15	121	0.96
Lampung	8.2	34	0.61	1.48	8	89	0.96
South Sumatra	8.1	44	0.68	1.45	8	72	0.99
Riau	6.5	105	0.55	1.86	12	88	0.99
West Sumatra	5.3	37	0.66	1.85	14	139	0.99
East Nusa Tenggara	5.2	16	0.74	1.61	18	260	0.97
NAD	5.1	27	0.58	1.99	14	93	0.98
West Nusa Tenggara	4.9	24	0.75	1.32	17	97	0.92
West Kalimantan	4.9	33	0.64	1.36	10	102	0.93
Bali	4.2	47	0.84	0.74	10	36	0.92
South Kalimantan	4.1	36	0.67	1.56	9	125	0.98
DI Yogyakarta	3.7	30	0.76	1.20	12	83	0.94
East Kalimantan	3.5	145	0.56	1.11	13	78	0.99
Jambi	3.5	50	0.57	1.15	8	114	0.98
Papua	3.2	56	0.77	0.77	25	168	0.87
Central Sulawesi	2.9	41	0.66	1.87	16	254	0.98
Southeast Sulawesi	2.6	38	0.72	1.51	19	158	0.95
Central Kalimantan	2.5	44	0.61	1.56	8	186	0.99
North Sulawesi	2.4	41	0.59	1.60	11	180	1.00
Kep Riau	2.0	107	0.55	1.11	15	64	0.99
Bengkulu	1.9	29	0.70	1.30	9	100	0.97
Maluku	1.7	22	0.67	1.73	20	131	0.99
Bangka-Belitung	1.4	46	0.63	1.16	No data	No data	0.98
West Sulawesi	1.3	28	0.62	2.18	15	258	0.96
North Maluku	1.2	25	0.59	1.74	14	135	0.99
Gorontalo	1.1	28	0.64	1.69	14	283	1.00
West Papua	0.9	75	0.61	0.99	21	214	0.97
North Kalimantan	0.7	100	0.46	1.36	No data	No data	0.96

SOURCE: Statistics Indonesia; SAKERNAS; MAMPU; World Development Indicators; UNICEF; McKinsey Global Institute analysis

Exhibit 30 (continued)

Indonesia's regions vary in gender inequality (2 of 2)

Level of gender inequality ■ Extremely high ■ High ■ Medium ■ Low

Gender equality in society					
Essential services and enablers of opportunity			Political representation	Physical security and autonomy	
Educational attainment			Internet users	Political representation	Child marriage ¹
F/M ratio			F/M ratio	F/M ratio	%
	Secondary and higher	Tertiary and higher	F/M ratio	F/M ratio	
West Java	0.88	0.83	0.83	0.33	13
East Java	0.88	0.98	0.84	0.20	16
Central Java	0.90	1.13	0.84	0.27	27
North Sumatra	0.95	1.14	0.90	0.20	15
Banten	0.88	0.87	0.79	0.21	26
DKI Jakarta	0.91	1.04	0.87	0.31	21
South Sulawesi	0.97	1.18	0.97	0.19	36
Lampung	0.95	1.38	0.90	0.21	14
South Sumatra	0.89	1.12	0.85	0.19	19
Riau	0.92	1.14	0.85	0.28	29
West Sumatra	0.96	1.36	1.01	0.15	21
East Nusa Tenggara	0.98	1.07	0.85	0.08	36
NAD	0.92	1.23	0.90	0.11	18
West Nusa Tenggara	0.82	0.69	0.84	0.12	30
West Kalimantan	0.86	0.96	0.83	0.08	33
Bali	0.81	0.80	0.76	0.10	21
South Kalimantan	0.86	0.82	0.76	0.15	27
DI Yogyakarta	0.87	0.88	0.86	0.31	24
East Kalimantan	0.94	1.13	0.77	0.25	35
Jambi	0.90	1.09	0.83	0.22	26
Papua	0.70	0.79	0.71	0.12	32
Central Sulawesi	1.01	1.08	0.97	0.25	30
Southeast Sulawesi	0.96	1.07	0.96	0.18	31
Central Kalimantan	0.89	1.02	0.72	0.18	27
North Sulawesi	1.02	1.17	1.00	0.41	32
Kep Riau	1.01	1.07	0.81	0.15	29
Bengkulu	0.91	1.03	0.94	0.25	28
Maluku	0.93	1.31	0.99	0.50	22
Bangka-Belitung	0.89	1.14	0.91	0.10	14
West Sulawesi	0.95	1.13	0.93	0.13	26
North Maluku	0.89	1.11	0.85	0.10	26
Gorontalo	1.09	1.29	1.11	0.22	17
West Papua	0.91	0.91	0.79	0.22	27
North Kalimantan	No data	No data	0.78	No data	26

¹ Women aged 20–24 who married before age 18.

SOURCE: Statistics Indonesia; SAKERNAS; MAMPU; World Development Indicators; UNICEF; McKinsey Global Institute analysis

Women remain underrepresented in politics; nevertheless, Indonesia is one of the best performers in the region on this indicator, behind only three other nations. One reason for this strong performance is the 30 percent quota for female candidates for each party at each government level.³²⁹ There has also been significant progress on women breaking into the top echelons of politics. For example, women have filled prominent ministerial positions in several recent administrations, and Indonesia has had a female president.³³⁰

Legal protection for women in Indonesia remains weak in three ways. First, there are national legislative gaps such as a lack of equal inheritance rights for women and a lack of workplace protection.³³¹ Second, some local and regional regulations are in conflict with national standards.³³² Third, many women work in the informal (unregulated) sector; 24 million Indonesian women—54 percent of female workers—work informally, and therefore lack legal protection and often face discrimination. The wage gap between men and women due to discriminatory practices is 36 percent in the informal sector, compared with 20 percent in the formal sector.³³³ Finally, there are gaps in enforcement of legal protections for women. It has been suggested that poor enforcement of non-discrimination laws, combined with Indonesia's strong maternity- and menstrual-leave provisions, has worsened discrimination against women, as businesses do not want to bear the cost of those entitlements and do not fear repercussions if they refuse to do so.³³⁴

Women's labour-force participation has barely budged over the past 20 years, holding constant at around 51 percent of women; the female-to-male participation ratio has been static at around 0.62, where it stands today (Exhibit 31). This has far-reaching implications for women's economic and societal empowerment, and represents a missed growth opportunity.³³⁵

Indonesia has three significant opportunities: (1) increasing the number of women in leadership positions in business (see Chapter 1 for more detail); (2) enhancing legal protection for women; and (3) accelerating progress on labour-force participation. We have chosen to look in more depth at the third of these opportunities, focusing on two ways to boost women's participation: improved infrastructure and broader use of digital technologies. Of the multitude of ways to boost female labour-force participation, we highlight two that are particularly relevant and potentially high-impact in Indonesia.

³²⁹ This quota applies to the top three positions on a candidate list as well as the overall figure, to ensure that female candidates are not "buried" at the bottom. Ben Hillman, "Increasing women's parliamentary representation in Asia and the Pacific: The Indonesian experience", *Asia & the Pacific Policy Studies*, volume 4, issue 1, January 2017.

³³⁰ For example, the current government has women serving in key positions including minister of finance, minister of state owned enterprises, minister of foreign affairs, and minister of marine affairs and fisheries.

³³¹ Workplace protections include laws mandating non-discrimination in hiring, specific sexual harassment laws, laws enshrining stronger parental (not just maternity) leave, and laws ensuring that women are guaranteed an equivalent position after they return from maternity leave. Note that the 2003 Manpower Act mandates non-discrimination in hiring and firing, but a number of legal loopholes render it difficult to enforce. See *Policy note: Economic gains from boosting female labour participation in Indonesia*, Australia Indonesia Partnership for Economic Governance, October 2017.

³³² Human Rights Watch reports that many discriminatory local and regional regulations remain even after the recent annulment of more than 3,000 regional regulations. See *Indonesia: Events of 2016*, Human Rights Watch (<https://www.hrw.org/world-report/2017/country-chapters/indonesia>).

³³³ The proportion due to discrimination is the difference in wages that cannot be explained by variations in productive characteristics, region, or industry between men and women. See *Gender inequality in Indonesia*, Australia Indonesia Partnership for Economic Governance, Australian Department of Foreign Affairs and Trade, and Monash University Centre for Development Economics and Sustainability, October 2015.

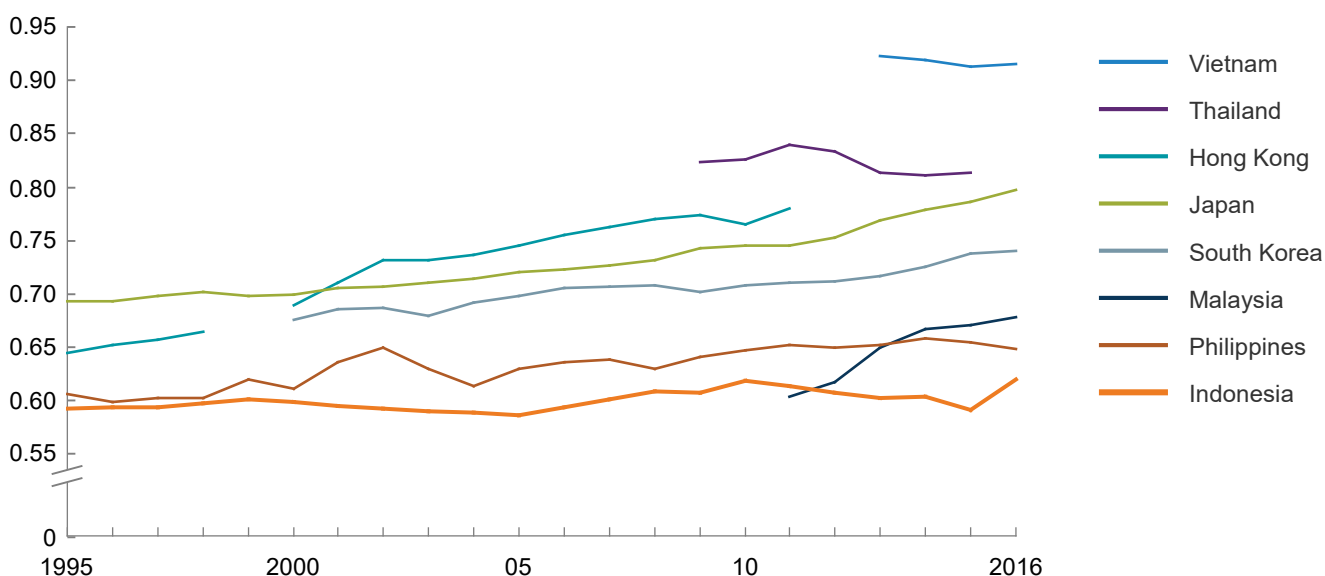
³³⁴ *Women's economic participation in Indonesia: A study of gender inequality in employment, entrepreneurship, and key enablers for change*, Australia Indonesia Partnership for Economic Governance, Australian Department of Foreign Affairs and Trade, and Monash University Centre for Development Economics and Sustainability, June 2017.

³³⁵ Labour-force participation is linked with greater financial security for women, greater autonomy, and improved educational and health outcomes for members of her household, for example. See *The power of parity: How advancing women's equality can add \$12 trillion to global growth*, McKinsey Global Institute, September 2015.

Exhibit 31

Indonesia's female-to-male labour-force participation ratio has been flat, while the ratio in many other Asia Pacific countries has been improving

Labour-force participation
F/M ratio



SOURCE: ILO; Statistics Indonesia; McKinsey Global Institute analysis

IMPROVED INFRASTRUCTURE CAN REDUCE THE AMOUNT OF TIME WOMEN SPEND ON CHORES, ENABLING THEM TO PARTICIPATE IN WORK IF THEY SO CHOOSE

Infrastructure is a vital economic enabler for both men and women. Improving infrastructure is particularly important for women in Indonesia because the nation lags behind other developing economies on the types of infrastructure that have the most impact on the time women spend on unpaid care work. They include access to clean water, sanitation, efficient fuels, and efficient transport. As part of its efforts to tackle gender inequality, Indonesia could embed a focus on women's needs into its infrastructure policy making.

Further improvement of infrastructure can help reduce the hours women spend on unpaid care work in the home, and thereby enable them to work for pay if they so choose. Globally, there is a strong correlation between hours of unpaid care work and labour-force participation.³³⁶ Although reliable data on unpaid household work performed by women in Indonesia are lacking, the amount appears to be high. One study reports that 86 percent of women aged above 14 say they undertake unpaid care work, compared with 28 percent of men.³³⁷ This is not surprising given that Indonesia venerates women's domestic role.³³⁸

³³⁶ A reduction in the time spent on unpaid care work from five hours to three is related to a ten-percentage-point increase in participation among women (for a given level of per capita GDP, fertility rate, female unemployment rate, female education, urbanisation rate, and maternity leave). See Gaëlle Ferrant, Luca Maria Pesando, and Keiko Nowacka, *Unpaid care work: The missing link in the analysis of gender gaps in labour outcomes*, OECD Development Centre, December 2014.

³³⁷ Valentina Y.D. Utari, *Unpaid care work in Indonesia: Why should we care?* The SMERU Research Institute, October 24, 2017.

³³⁸ In one survey, 72 percent agreed that "a wife's first role is to look after her husband", compared with an Asia Pacific average of 54 percent. In another survey, the "ideal household type" preferred by the majority of respondents is one in which the woman fits her career around her central role as primary carer. See Ariane J. Utomo, "Gender in the midst of reforms: Attitudes to work and family roles among university students in urban Indonesia", *Marriage & Family Review*, volume 52, issue 5, November 2015; and Will Dahlgreen, *Global report: Attitudes to gender*, YouGov, November 12, 2015.

Time women spend on caring for children or elderly relatives is of great value, but other chores that take up a lot of time could be carried out more quickly. Better infrastructure could substantially reduce the hours spent on cooking, collecting water and firewood, and travelling to shops or medical appointments. Such activities take up most of the time women spend on unpaid care work in Asia: housework accounts for 70 percent of total unpaid work and travel for 6 percent, compared with caring for children and the elderly at 14 percent (see Box 12, “Better developmental outcomes for children could be achieved in less time through improved maternal and early-childhood education”).³³⁹

Universal access to household infrastructure can reduce time women spend on chores

Almost all Indonesian provinces have lower access to household infrastructure than the national averages of middle- to low-income countries (Exhibit 32). In the case of clean water, clean fuel, and proper sanitation, around 30 percent of households (and even more in rural areas) lack access. Indonesia has 58 million people who practice open defecation, second-highest in the world after India.³⁴⁰ Household infrastructure is particularly lacking in some regions. For instance, in Papua, 68 percent of the population uses firewood for cooking.

³³⁹ The remaining time comes from shopping (14 percent) and other (2 percent). See OECD Time-Use Surveys.

³⁴⁰ Data from 2015. See Uzma S. Hoque, *Summary of Indonesia's gender analysis*, ADB Papers on Indonesia, number 06, Asian Development Bank, October 2015.

Box 12. Better developmental outcomes for children could be achieved in less time through improved maternal and early-childhood education

Expanded education and care for young children, in tandem with education for mothers, could improve outcomes for children while still enabling women to participate more in the workforce. Disseminating information about how mothers can best support their children's development, for example through better nutrition, has important implications for children.¹ Moreover, the availability of childhood education (either formal or through a grandparent) has direct links to workforce participation for women in Indonesia.² Expanded provision of early education would enable women to reduce the time they spend on unpaid care and, at the same time, improve children's cognitive, social,

and emotional competence.³ Improving early-childhood development through early years education could help to improve Indonesia's relatively low scores on the OECD's Programme for International Student Assessment (PISA).⁴

Indonesia ranks 12th out of 16 Asian countries on gross pre-primary enrolment; its 58 percent gross enrolment rate lags far behind the Asian average of 70 percent.⁵ The likely reasons for this are cost and quality. Ninety-nine percent of early-childhood services are funded privately, and only 50 percent of parents can afford typical childcare centre fees.⁶ Moreover, it would take almost a decade for all currently registered teachers to complete basic training at current rates.⁷

¹ Richard D. Semba et al., “Effect of parental formal education on risk of child stunting in Indonesia and Bangladesh: A cross-sectional study”, *The Lancet*, volume 371, number 9609, January 2008.

² Daniel Zefanya Halim, Hillary C. Johnson, and Elizaveta Perova, *Could childcare services improve women's labour market outcomes in Indonesia?* East Asia and Pacific gender policy brief number 1, World Bank, 2017.

³ Amer Hasan, Marilou Hyson, and Mae Chu Chang, eds., *Early childhood education and development in poor villages in Indonesia: Strong foundations, later success*, World Bank, 2013.

⁴ In 2015 Indonesia scored 403 on science (OECD average 493, minimum score 332), 397 on reading (OECD average 493, minimum score 347), and 386 on mathematics (OECD average 490, minimum score 328). See *Snapshot of performance in science, reading and mathematics*, OECD, 2015.

⁵ World Development Indicators, World Bank.

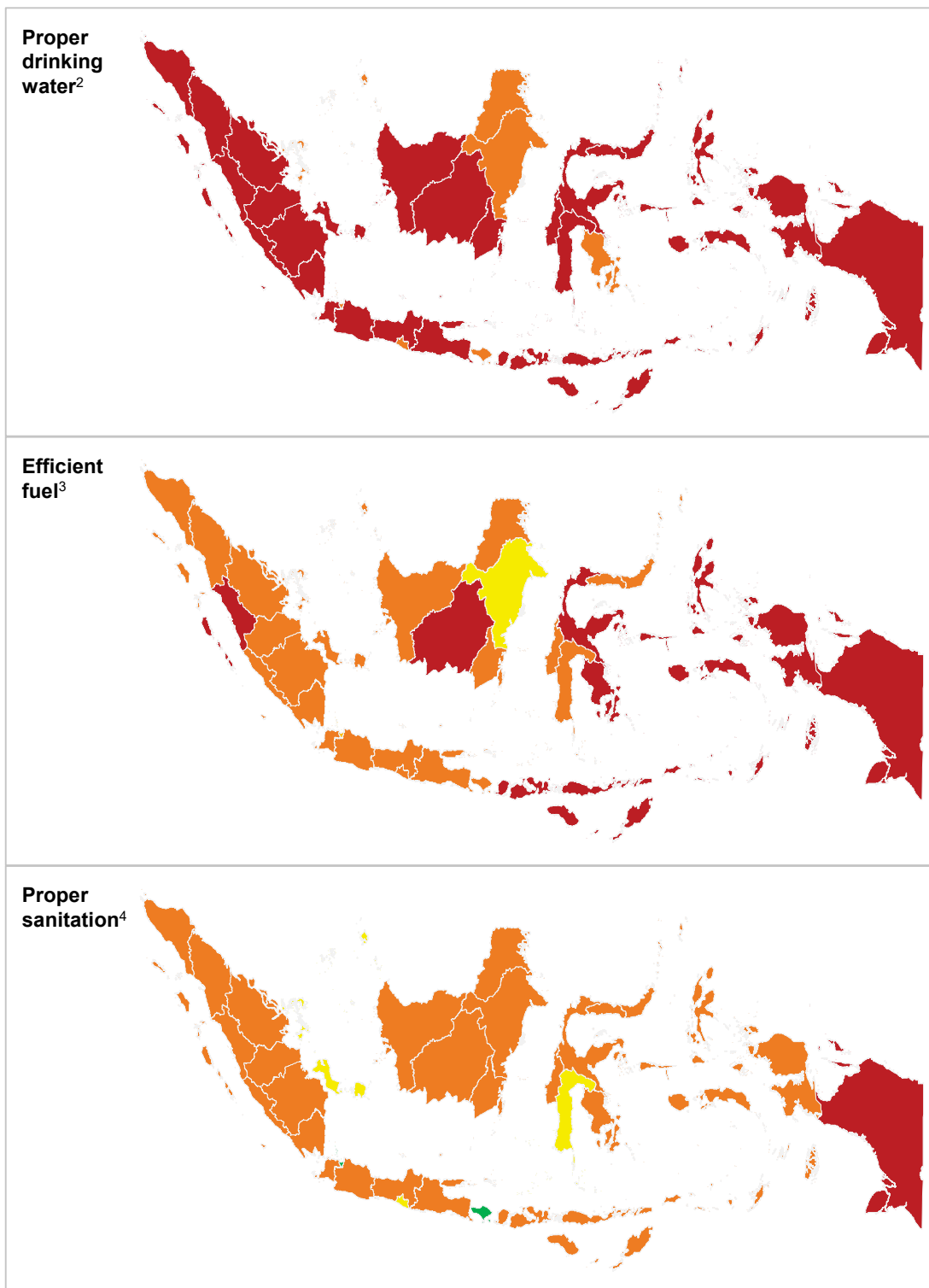
⁶ *Policy review report: early childhood care and education in Indonesia*, Early Childhood and Family Policy Series number 10, UNESCO, 2005; and *Implementation completion and results report*, Early Childhood Education and Development Project, World Bank, June 27, 2014.

⁷ Efforts to increase demand for early-years education and training of teachers to boost quality, such as creating networks for sharing best practices among early-childhood-education professionals, could be scaled up. See *Background study for the preparation of the RPJMN for Education 2015–2019, Part 1: Basic education, early childhood, access and quality*, Indonesian Ministry of National Development Planning and National Development Planning Agency, 2015.

Exhibit 32

Indonesia lags behind global medians on access to household infrastructure

% of houses Equivalent global quartiles¹ ■ Top ■ Second ■ Third ■ Bottom



- 1 Quartiles based on the national performance of middle-, lower-middle, and low-income countries (up to 134 depending on data availability for each metric) in 2015 (water and sanitation) and 2014 (fuel).
- 2 Proper drinking water refers to households where the main drinking water and water for washing is retail tap water, rain water, or from a protected pump/well/spring with the distance to septic tank at more than 10 metres. Based on 2017 data for Indonesia.
- 3 Efficient fuel includes electricity and gas. Based on 2015 data for Indonesia. Global quartiles have been calculated solely on electricity for reasons of data availability.
- 4 Proper sanitation is where defecation facilities (public or private) are available. Facilities must have a swan neck for the closet/toilet, and final stool disposal site must be either a tank or sewerage channel. Based on 2017 data for Indonesia.

SOURCE: Statistics Indonesia; World Development Indicators; McKinsey Global Institute analysis

Lack of household infrastructure has a significant impact on the time women spend on chores. Access to improved drinking water, in addition to the health benefits explored in much Indonesian research, means that women do not need to spend long hours seeking water.³⁴¹ One study in Pakistan found that proximity of water sources to a woman's home was associated with female employment.³⁴² Without high-quality sanitation, the time required for women in Indonesia to find private and secure locations to defecate is not insignificant: between 35 and 55 minutes a week for each woman, and the same time again accompanying each of her children.³⁴³ Access to clean fuel (electricity or gas) for cooking saves women time on collecting fuel, especially gathering firewood. A study in South Africa found that rural electrification saved women an average of two working days per week through reduced chores.³⁴⁴ Many of these women used the extra time for paid work: female employment rose 9.5 percent.

Tailoring transport infrastructure to women's needs can improve women's ability to participate in the labour force

Transport infrastructure has a significant impact on the time women spend on unpaid care work. Across Asia, women spend an average of 90 minutes per day travelling for household or medical purposes.³⁴⁵ Little Indonesia-specific gender-aggregated data is available, but in Jakarta, traffic congestion and inadequate public transport systems mean that each non-work trip takes around an hour each way. The purposes of these trips include shopping and taking children to school.³⁴⁶ In rural areas, time spent travelling may be even greater.³⁴⁷ This issue is compounded if Indonesian women attempt to hold a job in addition to their care duties. One survey in Jakarta showed that 15 percent of women with a child under the age of five had quit a job for transport-related reasons.³⁴⁸

Improving transport infrastructure is not just a matter of increasing investment—it must be better tailored to women's needs. These needs differ from those of men in three ways. First, women in Indonesia are more likely to walk or take public transport than men, as husbands typically take precedence in use of the household's vehicle; that means that investment in public transport and non-vehicular roads is more important for women than for men.³⁴⁹ Second, women tend to take more trips (and make more stops along each trip) than men and to travel at non-peak times to locations outside business centres because they travel to complete domestic chores and escort children to school.³⁵⁰ This argues for transport policy to better cater to multistop transport trips at off-peak times. Finally, safety is a significant concern for women. For example, Jakarta's public transport is one of the most dangerous in

³⁴¹ For example, a household with "unimproved" drinking water in Indonesia is around 12 percent more likely to have diarrhoea. See Arianto A. Patunru, "Access to safe drinking water and sanitation in Indonesia", *Asia and the Pacific Policy Studies*, volume 2, number 2, May 2015.

³⁴² Nadeem Ilahi and Franque Grimard, "Public infrastructure and private costs: Water supply and time allocation of women in rural Pakistan", *Economic Development and Cultural Change*, volume 29, number 1, October 2000.

³⁴³ For a woman without access to a toilet in Indonesia. See *Balancing the burden? Desk review of women's time poverty and infrastructure in Asia and the Pacific*, Asian Development Bank, 2015.

³⁴⁴ Taryn Dinkelman, "The effects of rural electrification on employment: New evidence from South Africa", *American Economic Review*, volume 101, number 7, December 2011.

³⁴⁵ OECD Time Use Surveys.

³⁴⁶ Based on average travel times per non-commute trip sourced from AlphaBeta.

³⁴⁷ *Women's economic participation in Indonesia: A study of gender inequality in employment, entrepreneurship, and key enablers for change*, Australia Indonesia Partnership for Economic Governance, Australian Department of Foreign Affairs and Trade, and Monash University Centre for Development Economics and Sustainability, June 2017.

³⁴⁸ Firman Witoelar et al., *How Jakarta's traffic affects labor market outcomes for women and people with disabilities: Results from a baseline survey*, Australia Indonesia Partnership for Economic Governance, September 2017.

³⁴⁹ *Balancing the burden? Desk review of women's time poverty and infrastructure in Asia and the Pacific*, Asian Development Bank, 2015.

³⁵⁰ *Ibid.*

the world for women, further reducing women's mobility.³⁵¹ If Indonesia were to do more to improve their safety, more women may take jobs outside the home.³⁵²

DIGITAL TECHNOLOGIES CAN OFFER A FAST TRACK TO FEMALE ENTREPRENEURS, UNLEASHING THEIR ECONOMIC POTENTIAL

Indonesia has one of the strongest bases of female entrepreneurs in the world, with women-owned SMEs contributing 9.1 percent of GDP, according to the World Bank.³⁵³ This strength comes from both large numbers of female entrepreneurs and the high aspirations of those women. Just over half (51 percent) of small-business owners (against a global average of 35 percent), and 34 percent of owners of medium-sized enterprises (in line with the global average), are women. Indonesia ranked first out of 65 countries in 2016 on the female-to-male early-stage entrepreneurial activity ratio published by the Global Entrepreneurship Monitor, and is one of only a handful where there are more female than male entrepreneurs.³⁵⁴ Women in Indonesia also want to expand their businesses: 15 percent of women who own SMEs are considered to have “high growth aspirations”, compared with only 5 percent globally.³⁵⁵

The country could do more to capitalise on this strength. There are still significant barriers to female entrepreneurs related to finance and perceptions of women's enterprises being “supplementary” to male partners' work.³⁵⁶ We also believe that more concerted efforts to embrace digital technologies could vault women's economic contribution to a new level.

Indonesia stands at the beginning of a typical S-curve of productivity growth and progress towards gender parity related to use of digital technologies (see Box 13, “Digital inclusion can accelerate progress towards gender parity”).³⁵⁷ Digitisation has the power to unleash business potential by enabling greater access to finance and credit, greater access to market information, access to payment platforms, disintermediation of middlemen, and increased flow of economic gains to less developed regions.³⁵⁸ These benefits flow to men and women alike, although they tend to be more important for women.³⁵⁹

Access to markets is another key benefit of digitisation, one that holds particular promise for Indonesia given its rapid move into e-commerce and enthusiasm among consumers for the internet.³⁶⁰ Accessing markets using digital means is particularly important for entrepreneurs in Indonesia whose access to physical markets is constrained by shortcomings in the nation's transport infrastructure that make travel difficult and time-consuming and by large regional disparities in industrial development. These imbalances mean that entrepreneurs in some regions have lower infrastructure support, an even more critical consideration for

³⁵¹ “Most dangerous transport systems for women”, Reuters, October 31, 2014.

³⁵² There has already been some action in response to this issue: Jakarta's commuter rail and bus operators both provide areas reserved for female passengers, and Indonesian women are participating in public awareness campaigns, including by posting their experiences on Hollaback, an international initiative against street harassment.

³⁵³ World Bank Enterprise Survey, 2009, cited in *Women-owned SMEs in Indonesia: A golden opportunity for local financial institutions*, Market Research Study, International Finance Corporation, March 2016.

³⁵⁴ This ratio declined substantially in 2017, highlighting the importance of prioritising support for female entrepreneurs.

³⁵⁵ *Women entrepreneurs in Indonesia: A pathway to increasing shared prosperity*, World Bank, April 2016.

³⁵⁶ *Women-owned SMEs in Indonesia: A golden opportunity for local financial institutions*, Market Research Study, International Finance Corporation, March 2016.

³⁵⁷ Phyllia Wibowo, *Digital revolution: What it means for Indonesian business*, McKinsey & Company, February 2017.

³⁵⁸ MGI has published extensively on the transformative power of digital technologies. Download MGI reports on technology and innovation at www.mckinsey.com/mgi/our-research/technology-and-innovation.

³⁵⁹ *Women's economic empowerment through financial inclusion: A review of existing evidence and remaining knowledge gaps*, Innovations for Poverty Action, March 2017.

³⁶⁰ In 2016, 78 percent of current internet users made online purchases. E-commerce volumes are expected to grow rapidly at an estimated 18 percent a year to the end of 2020. See *Unlocking Indonesia's digital opportunity*, McKinsey Indonesia Office, October 2016.

female entrepreneurs as women tend to be the primary person looking after the family, and therefore need to stay close to home.

Digital technologies are already starting to make a difference by offering female entrepreneurs avenues to large-scale markets to sell products. Women-owned MSMEs generate 35 percent of e-commerce revenue on one of Indonesia's largest online marketplaces, compared with only 15 percent of offline MSME revenue.³⁶¹ Access to digital markets will also become increasingly valuable for women in service industries through the gig economy. McKinsey has estimated that online service platforms could activate 3 percent of non-working female citizens in Indonesia, adding one million women to the workforce.³⁶² These platforms also provide better tracking of business metrics and better remuneration for domestic workers (who are primarily women).³⁶³

³⁶¹ McKinsey & Company survey of 700 Indonesian e-commerce merchants.

³⁶² Unlocking Indonesia's digital opportunity, McKinsey Indonesia Office, October 2016.

³⁶³ Note that there are also risks associated with the gig economy for women, one being that these platforms tend to operate outside standard regulatory frameworks that protect workers' rights. See Abigail Hunt and Fortunate Machingura, A good gig? The rise of on-demand domestic work, ODI working and discussion papers, Overseas Development Institute, December 2016.

Box 13. Digital inclusion can accelerate progress towards gender parity

In addition to offering business benefits to female entrepreneurs and self-employed women, digital technologies accelerate progress on the four key indicators of gender equality:

Labour-force participation: Technology reduces the time it takes to do both paid and unpaid work. For example, digital payments obviate the need to spend time travelling to and waiting in queues at a bank or ATM (a significant barrier for Indonesian women).¹ Working remotely enables women to balance work and family, and digital communication enables women to connect with their families even when at work.

Financial inclusion: Digital technology enables banks to serve more women profitably.² In turn, financial inclusion has a strong impact on female poverty, labour-force participation, and perceptions of agency.³

Health and education: Healthcare and education delivered digitally enable providers to cut costs and overcome large distances and poor infrastructure. In Indonesia, Doktor Gratis is a telemedicine startup that is enhancing consumer access to physicians, and HarukaEdu offers online programmes with classes from higher education institutions.

Political voice: Providing rural women with digital media training has led to reports of improved social status, bargaining position, and influence in village policies.⁴

¹ *Women-owned SMEs in Indonesia: A golden opportunity for local financial institutions*, Market Research Study, International Finance Corporation, March 2016.

² MGI has estimated that digital technologies cut the cost of providing financial services by 80 to 90 percent. See *Digital finance for all: Powering inclusive growth in emerging economies*, McKinsey Global Institute, September 2016; and *Fighting poverty, profitably: Transforming the economics of payments to build sustainable, inclusive financial systems*, Bill & Melinda Gates Foundation, September 2013.

³ See, for example, Tavneet Suri and William Jack, "The long-run poverty and gender impacts of mobile money", *Science*, volume 354, issue 6317, December 2016; Jenny C. Aker et al., "Payment mechanisms and antipoverty programs: Evidence from a mobile money cash transfer experiment in Niger", *Economic Development and Cultural Change*, volume 65, number 1, October 2016; and Dean Karlan et al., *Research and impacts of digital financial services*, National Bureau of Economic Research working paper number 22633, September 2016. For a global discussion of the power of digital technologies to unlock opportunity in emerging economies, see *Digital finance for all: Powering inclusive growth in emerging economies*, McKinsey Global Institute, September 2016.

⁴ Fiona Suwana and Lily, "Empowering Indonesian women through building digital media literacy", *Kasetsart Journal of Social Sciences*, volume 38, issue 3, September–December 2017.

A significant expansion in access to the internet—for both men and women—would help deliver the full benefits of digitisation. Today, only 27 percent of men and 24 percent of women in Indonesia access the internet, and overall Indonesia ranks 88th in the world, below other middle-income nations such as Guatemala, Morocco, and the Philippines.³⁶⁴ The key barrier is a lack of infrastructure.³⁶⁵ Roll-out of broadband and digital infrastructure is clearly lacking.³⁶⁶ Computer penetration levels are very low: only 9 percent of rural households own a computer, and in Papua, that figure is only 4 percent.³⁶⁷ Improving the quality of mobile infrastructure is also important given that around 75 percent of online purchases are made via mobile devices.³⁶⁸ But increasing digital access for women requires overcoming three gender-specific barriers:³⁶⁹

- **Digital literacy:** Women often cite lack of knowledge and confidence in using digital technologies as an obstacle. One survey found that 40 percent of Indonesian women said that they needed help to use mobiles, compared with 25 percent of men.³⁷⁰
- **Perceptions of utility:** Boosting use of digital technologies relies on women believing them to be useful. McKinsey analysis has identified this as one of the two biggest barriers to internet adoption in Indonesia.³⁷¹ Female users in one Indonesian study said they view the internet as a tool for communication and information related to their children’s education, but they had little understanding of the broader uses.³⁷²
- **Societal attitudes:** Some patriarchal attitudes restricting women’s use of technology persist. In one survey in Jakarta, over one-third of men agreed that “men have the responsibility to restrict what women access on the internet” and that “women should be restricted from using the internet in public places on their own”.³⁷³

In addition to improving infrastructure, equipping women with skills and understanding of the digital opportunity and addressing societal attitudes will be critical to ensuring that Indonesia makes the most of its strong pool of female entrepreneurs.

INDONESIA’S POTENTIAL PRIORITIES CENTRE ON INFRASTRUCTURE, DIGITAL PENETRATION, SOCIETAL ATTITUDES, AND LEGAL REFORM AND ENFORCEMENT

To capture the considerable GDP opportunity available from moving further along the path to gender parity, Indonesia can build on strengths including near-parity in education, falling rates of maternal mortality, and a large pool of female entrepreneurs. The government, companies, and NGOs can also work together to improve the number of women in leadership (see Chapter 1 for further discussion). Here we discuss four other priority areas

³⁶⁴ International Telecommunications Union.

³⁶⁵ See *Offline and falling behind: Barriers to Internet adoption*, McKinsey & Company Technology, Media and Telecom Practice, October 2014.

³⁶⁶ For a broad discussion on this point, see, for instance, *Unlocking Indonesia’s digital opportunity*, McKinsey Indonesia Office, October 2016; *Ten ideas to maximize the socioeconomic impact of ICT in Indonesia*, McKinsey & Company Telecommunications, Media and Technology Practice, March 2015; and *Offline and falling behind: Barriers to Internet adoption*, McKinsey & Company Technology, Media and Telecom Practice, October 2014.

³⁶⁷ Statistics Indonesia (BPS).

³⁶⁸ *Unlocking Indonesia’s digital opportunity*, McKinsey Indonesia Office, October 2016.

³⁶⁹ Note that affordability doesn’t appear to be a bottleneck in Indonesia, though this is a major obstacle for women in most developing nations. See *Unlocking Indonesia’s digital opportunity*, McKinsey Indonesia Office, October 2016, and *Women’s rights online: Translating access into empowerment*, World Wide Web Foundation, October 2015.

³⁷⁰ GSMA.

³⁷¹ *Offline and falling behind: Barriers to Internet adoption*, McKinsey & Company Technology, Media and Telecom Practice, October 2014.

³⁷² GSMA.

³⁷³ World Wide Web Foundation.

for Indonesia to consider, to enable progress on each of the areas of high and extreme inequality identified in Indonesia.

1. Continue to expand access to infrastructure to reduce unpaid care work

Improving supply of transport, household, and healthcare infrastructure is the first step to reducing the time women spend on unpaid care work.³⁷⁴

- **Build a robust economic case for increased investment in infrastructure with a gender-budgeting lens:** Progress on the provision of household infrastructure over the past decade has been solid—24 percent of households have gained access to water since 2009, and 32 percent moved to electricity and gas for cooking between 2009 and 2015. Part of this success comes from innovative initiatives such as the Indonesia Urban Water, Sanitation and Hygiene Project, which engages entrepreneurs and local champions.³⁷⁵ There have also been impressive strides in transport, with improved planning processes on major construction projects. Indonesia jumped 15 places on the World Bank’s ease of doing business index to 91st in the world in 2017, one of the ten biggest improvements in that year. However, there is room to accelerate progress, particularly on electrification. The Clean India Campaign is an example of concerted investment in large-scale infrastructure improvement through targeting both supply (for example, access) and demand (for example, promotion).³⁷⁶ The government arguably needs to develop a clear economic and business case for stepping up investment in infrastructure. The Philippines and South Korea have each introduced gender budgeting into infrastructure investment decisions. Collecting more gender-disaggregated data would help clarify the magnitude of specific opportunities.³⁷⁷
- **Work with NGOs and foundations to develop infrastructure and services in remote areas:** NGOs and foundations play an important role in remote and rural areas, where private and public investment is lagging. For example, targeted transport services to healthcare facilities are being introduced to reduce maternal mortality outcomes, and IBEKA, a social enterprise in Indonesia, partners with communities and the public and private sectors to build infrastructure enabling access to electricity and clean water.³⁷⁸
- **Introduce innovative products and services to help women reduce time spent on household chores:** Products and services could be developed to help women reduce the time required to perform household chores. For example, Indonesian company Feel Well Ceramics provides affordable toilets for underserved communities, funnelling a portion of its profits back into the construction of toilets in areas that lack access through its corporate social responsibility programme. Water.org focuses on financing products, providing microloans to improve access to clean water and sanitation. Products in other regions target other areas of unpaid care work. For example, Wonderbag is a portable non-electric slow cooker, which saves up to 1,475 hours a year by reducing time spent

³⁷⁴ Indonesia still has higher maternal mortality than the Asia Pacific average, especially in rural areas. Further investment in healthcare (especially hospitals) and transport services is important. See Edriana Noerdin, “Transport, health services and budget allocation to address maternal mortality in rural Indonesia”, *Transport and Communications Bulletin for Asia and the Pacific*, number 84, UN Economic and Social Commission for Asia and the Pacific, December 12, 2014.

³⁷⁵ *Safe water, sanitation reaching Indonesia’s urban poor*, USAID, April 2013.

³⁷⁶ Carmen da Silva Wells et al., *Maximizing the benefits of learning and knowledge management to tackle the sanitation challenge in India*, International Water and Sanitation Centre, 2013.

³⁷⁷ Note that gender-driven investment doesn’t necessarily need to be wholly determined by an economic and business case. Improving women’s quality of life is a valuable goal in itself. Collecting data is key to understanding women’s needs and tracking progress on meeting them. Many countries do this by adding gender-specific metrics to their collection of population census data.

³⁷⁸ Y. Rajkotia et al., *Re-envisioning maternal and newborn health in Indonesia: How the private sector and civil society can ignite change*, USAID and Health Policy Plus, 2016.

collecting firewood and cooking. For every product sold, the Wonderbag Foundation donates one to rural families in Africa.³⁷⁹

2. Drive digital access, skills development, and business training for female entrepreneurs

Indonesia can capture substantial economic value while at the same time accelerating progress towards gender parity by equipping female entrepreneurs with digital tools. The most important potential priorities for Indonesia to consider in order to ensure that women obtain the full benefits of digital technologies are improving women's digital skills, persuading them of the value of digital technologies, and improving the digital infrastructure.

- **Increase instruction in digital skills in the early years of secondary school:** Indonesia's school system is a strong platform for providing women with the skills and confidence they need to make the most of digital technologies, particularly given high gender equality in education. However, Indonesia is not taking full advantage—52 percent of schools are not connected to the internet, and teachers tend to have only very basic ICT capabilities.³⁸⁰ Although Indonesia implemented an ICT school curriculum in 2006, the subject has since been removed.³⁸¹ Educational authorities can consider whether schools are providing sufficient access and instruction in ICT skills such as the use of the internet for research, business, and basic web-content creation in order to equip students with the confidence and know-how to explore further. Given that the rate at which women drop out of the labour force is highest for women educated to the early secondary level, it makes sense to prioritise this instruction in the primary and early secondary years.
- **Scale up digital skills-building programmes for female entrepreneurs:** NGOs and foundations can play a key role in providing additional instruction to women entrepreneurs, and some are beginning to do so. For example, Google's Womenwill programme has run conferences in five Indonesian cities that both teach women to use digital platforms to expand their businesses and enable them to connect with other female entrepreneurs. It also runs a free training programme in ten cities to help entrepreneurs learn how to expand their businesses. Similarly, Facebook's #SheMeansBusiness scheme runs workshops for female entrepreneurs and provides training to partner organisations to further develop skills building. Indonesia's Women Information and Technology Awareness initiative targets housewives, providing awareness of technology and its value alongside skills training on how to use and create content. Indonesia could increase the scale of such initiatives and target them to home-based entrepreneurs.³⁸² It could look at the approach of Malaysia's eHomemakers, for instance, which provides computer skills and entrepreneurship training for low-income and unemployed homemakers to enable them to develop home-based businesses.
- **Better tailor digital platforms, products, services, and marketing to women's needs:** Improving women's perceptions about the usefulness of digital technologies can involve better targeting products, services, and marketing to their needs. Several websites in India, for instance, focus on helping women return to work, and Indonesian equivalents of these platforms, especially in Bahasa, could be valuable.³⁸³ Private

³⁷⁹ Wonderbag Foundation website (See <http://www.wonderbagworld.com/foundation/>).

³⁸⁰ *Indonesia: Measuring progress, driving action*, Women's Rights Online Report Card, World Wide Web Foundation, September 9, 2016.

³⁸¹ Wayan Vota, *Should Indonesia be teaching ICT in schools?* ICT Works, April 14, 2014.

³⁸² Fiona Suwana and Lily, "Empowering Indonesian women through building digital media literacy", *Kasetsart Journal of Social Sciences*, volume 38, issue 3, September–December 2017.

³⁸³ For example, JobsForHer works with 750 companies to offer jobs targeted to women, including part-time, work from home, and freelance opportunities. It is gaining strong traction with women, with 50,000 visitors per month to its online portal. Similarly, HerSecondInnings provides tailored job opportunities in addition to providing personalised e-coaching sessions for women to help develop their skills.

companies (especially platforms that attract both suppliers and consumers) should not underestimate the value of tailoring their offerings to women's needs, and consider investing in sufficient outreach and customisation to women.³⁸⁴ In India, the recently launched Amazon Saheli initiative offers female vendors subsidised marketing and delivery, and training to familiarise them with the benefits of e-commerce.

3. Invest in shifting attitudes about the role of women in society and work

Challenging perceptions that women must withdraw from the labour force to fulfil their family responsibilities would help Indonesia achieve the full economic potential of female labour-market participation:

- **Encourage community learning on how to manage a career in addition to family:** Community learning networks, including mentorship programmes, support groups, and discussion forums, can play a vital role on this front.³⁸⁵ Companies can provide programmes for women (as Shiseido does in Japan), as can other organisations (such as Lean In Circles). But the burden of withstanding societal pressure should not fall exclusively on women.
- **Educate and activate networks of male champions:** It is important to create a culture that is supportive of women's choices at home and at work, and that promotes joint responsibilities in the domestic sphere. McKinsey research has found that educating male "champions" to support women at work is powerful.³⁸⁶
- **Run public-awareness campaigns to encourage recognition and redistribution of unpaid care work.** Changing attitudes at home is difficult, but progress is possible. One example of an awareness effort is #SharetheLoad, a Procter & Gamble campaign drawing attention to the belief that laundry is exclusively a woman's job.

4. Legislate and enforce greater legal protection for women

Indonesia has made some important progress towards enshrining women's rights, but distinct weaknesses in legal protection for women endure. Advancing on this front is the foundation for progressing in other areas where Indonesia has large gender gaps in work, such as labour-force participation and pay, but also in society, with more progress needed on child marriage. Indonesia could consider ways to improve not only legislation but also its enforcement.

- **Pass workforce laws to enforce part-time options, increase paternity leave, and tackle sexual harassment:** Legislation that improves workforce protection—including laws on expanded paternity and parental leave, discrimination in hiring, returning to work after maternity leave, and sexual harassment of women—is important.³⁸⁷ So too are measures to facilitate flexible working options in the formal sector to help shift women away from the informal sector. Options include revising the Manpower Act to allow part-time work in the formal economy, and regulations for home-based entrepreneurs that

³⁸⁴ Financial services organisations have begun to pursue this approach. Garanti Bank was the first in its region to offer products and services tailored specifically to female entrepreneurs, and it provides significant tailored outreach, including discussion gatherings and a mini-MBA programme targeted at women. See *Garanti Bank SA: Combining SME banking excellence with a proposition for women entrepreneurs in Turkey*, case study, International Finance Corporation, March 2014.

³⁸⁵ *Women Matter: An Asian perspective: Harnessing female talent to raise corporate performance*, McKinsey & Company, June 2012.

³⁸⁶ See *Women Matter: An Asian perspective: Harnessing female talent to raise corporate performance*, McKinsey & Company, June 2012; and *Women in leadership: Lessons from Australian companies leading the way*, McKinsey & Company, Workplace Gender Equality Agency, and Business Council of Australia, November 2017.

³⁸⁷ As recommended by the UN Committee on the Elimination of Discrimination against Women in 2012.

allow a business to be registered at a residence.³⁸⁸ The Indonesian Ministry of Finance has introduced seasonal daycare around the Eid holidays.³⁸⁹ Once regulators facilitate flexible working options in the formal workforce, it will be up to companies to make those options a reality. Indonesian companies can improve women's labour-force participation and progress to leadership positions in various ways (see Chapter 1 for further discussion). They include making a strong business case for their organisation that is linked to the company's goals; offering flexible working arrangements and ensuring that uptake is high—which may require changes to the organisation's culture and the explicit support of middle management; and focusing on women's employment not only in-house but also along supply chains and distribution channels.

- **Strengthen enforcement of gender protections:** Strengthening enforcement of women's legal protection is critical. Potentially useful ways of doing this include training civil servants in gender bias, tracking key performance indicators, and improving the accessibility of courts and other dispute mechanisms. The Asia Foundation, for example, works with religious court judges to reduce gender bias in family law cases.³⁹⁰

It is important that measures taken in all these areas are tailored for Indonesia's highly diverse regions. The most successful initiatives—including the Indonesia Urban Water, Sanitation and Hygiene Project—tend to build relationships with local champions that tailor and drive implementation.



Indonesia has already proved that it can make rapid progress on tackling sources of gender inequality—just three examples are its success in doubling girls' enrolment in secondary schools in less than a decade, its rapid progress in reducing maternal mortality, and its 30 percent quota for female candidates at each government level. And Indonesia has solid strengths on which to build, including, for instance, a dynamic base of female entrepreneurs. Fully equipping women to participate in the workforce means recognising the time they spend on unpaid housework and reducing it through improved infrastructure, and better equipping them to participate in the workforce by developing more supportive societal attitudes and enforcing more thorough legal protections. Digitisation also offers a unique opportunity to accelerate progress. If Indonesia commits wholeheartedly to continuing to digitise its economy and prioritising accessibility for women, many new opportunities will open for women to generate incomes for their families, enhancing Indonesia's economic prospects.

³⁸⁸ Article 59.2 of Law number 13 restricts use of contract work for types of work that are permanent in nature. From *Policy Note: Economic gains from boosting female labour participation in Indonesia*, Australia Indonesia Partnership for Economic Governance, October 2017.

³⁸⁹ *Ibid.*

³⁹⁰ *Religious courts: Improving women's access to justice in Indonesia*, The Asia Foundation, July 2010.



6. JAPAN

Japan lags behind other advanced economies and the global average on progress towards gender parity. As the population ages rapidly and Japan's workforce shrinks, unleashing the economic potential of women is vital. The Japanese government recognises the issue of gender inequality and has been active in attempting to accelerate progress. Business, too, recognises that it needs to bring more women into the workforce in order to counteract demographic trends.

Acting decisively to further close gender gaps offers considerable economic benefits. Our analysis suggests that by 2025, Japan could add \$325 billion to annual GDP growth, 6 percent above a business-as-usual scenario (Exhibit 33). Of the three drivers of additional economic value, 36 percent of the opportunity would come from increasing women's labour-force participation, 38 percent from increasing the hours worked, and 26 percent from increasing women's representation in higher-productivity sectors.³⁹¹

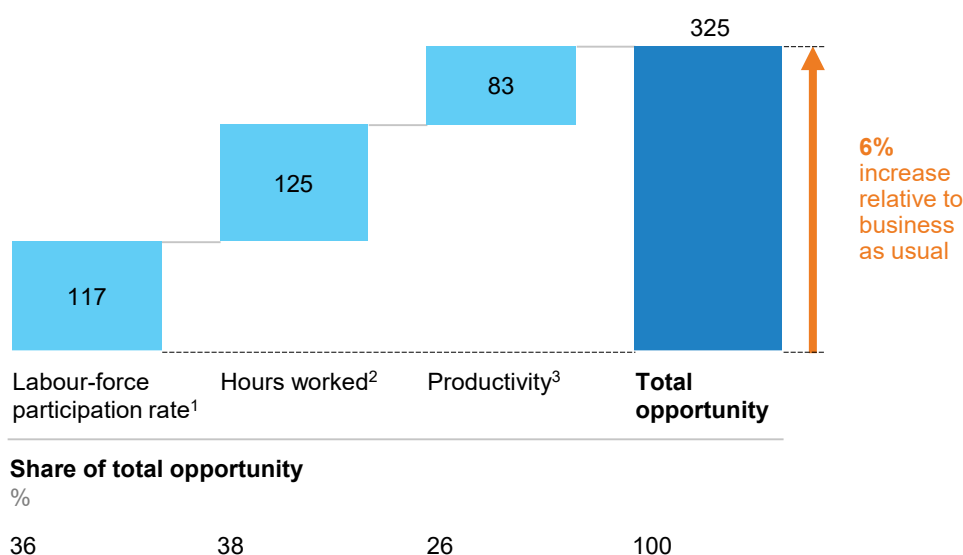
In this discussion, we focus in particular on the opportunity and challenge of increasing women's representation in Japan's top universities in order to strengthen the female talent pipeline, as well as highlighting the increasing focus on gender equality in the public and private sectors.

Exhibit 33

Japan could add \$325 billion to annual GDP by 2025—6 percent above business as usual

Incremental 2025 GDP from improving gender equality in the best-in-region scenario, relative to the business-as-usual scenario

\$ billion, in 2014 dollars



1 Implies female labour-force participation rate increasing from 49% in 2014 to 54% in the 2025 best-in-region scenario.

2 Implies full-time equivalent rate for females increasing from 75% in 2014 to 81% in the 2025 best-in-region scenario.

3 Implies weighted productivity for females increasing from \$77,000 in 2014 to \$90,000 in the 2025 best-in-region scenario.

NOTE: Numbers may not sum due to rounding.

SOURCE: McKinsey Global Institute analysis

³⁹¹ Goldman Sachs has estimated that achieving gender parity in the workplace could add 13 percent to Japan's GDP. See Kathy Matsui et al., *Womenomics 4.0: Time to walk the talk*, Japan: Goldman Sachs Portfolio Strategy Research, May 30, 2014.

Japan



GDP opportunity from advancing women's equality¹

\$325 billion

added to annual GDP by 2025

or

6%

over business-as-usual GDP by 2025



Gender inequality today²

Level of gender inequality

Extremely high
0 – 0.50

High
0.50 – 0.75

Medium
0.75 – 0.95

Low
0.95 – 1.00

Japan

Asia Pacific best

Asia Pacific average

Global best

Gender equality in work

0.42

0.73

0.44

0.73

Gender equality in society



Essential services and enablers of economic opportunity

0.87

0.96

0.85

0.97



Legal protection and political voice

0.30

0.66

0.32

0.84



Physical security and autonomy

0.91

0.96

0.82

0.97



Potential measures to capture the GDP opportunity

Government



Accelerate policy change and public services to match market needs (e.g., childcare provision, flexible labour contracts, and tax)



Increase the number of women attending top universities (e.g., quotas, safe and affordable housing, and de-biased entrance exams)



Increase focus on improving female performance in STEM at high school



Invest in shifting attitudes about the role of women in society and work (e.g., awareness campaigns)

Companies



Use organisational change best practices to accelerate progress on gender initiatives



Facilitate networks, mentorship, and sponsorship of women from high school through the talent pipeline



Increase corporate and public-sector efforts to cultivate female talent from the start of the talent pipeline (e.g., scholarships)

¹ GDP opportunity in scenario where all countries match their best-in-region country in progress towards gender parity.

² GPS scores are made up of 15 indicators of gender equality in work and society, weighted equally. GPS runs from

0 (no gender equality) to 1.0 (parity); for instance, a 0.95 ratio represents 5% distance from gender parity.

SOURCE: McKinsey Global Institute analysis

JAPAN HAS HIGH OR EXTREMELY HIGH GENDER INEQUALITY ON ALMOST HALF OF GPS INDICATORS, PARTICULARLY IN GENDER EQUALITY IN WORK

Japan's gender equality in work is slightly lower than the Asia Pacific average and considerably lower than best in region (Exhibit 34). Particular areas of concern for Japan are female leadership, female political representation, and the sharing of unpaid work.³⁹² There is considerable scope to boost the female-to-male labour-force participation ratio and other indicators of gender equality in work. Its progress on reducing gender inequality on the three types of societal indicators is similarly roughly in line with the regional average, but, again, less advanced than the best in region. Aspects of gender inequality on which Japan's progress is below average include unmet need for family planning, which is 10 points above the regional average. Women's financial inclusion is above the Asia Pacific average but could be even higher, given Japan's well-developed financial sector.

There has been some progress over the past ten years in female labour-force participation. The share of women working (aged 15 to 64) increased from 61.3 percent in 2006 to 68.1 percent in 2016.³⁹³ This contributed to a 0.04 increase in Japan's female-to-male labour-force participation ratio over this period.³⁹⁴ As noted in Chapter 1, the ratio has fallen over the past decade in several countries. However, Japan's increased ratio has not necessarily led to more female full-time employment, as part-time employment has also been on the rise.³⁹⁵ Over the past five years, gender inequality on the perceived wage gap indicator was the largest of any country in the region (and some regions have experienced a widening in that gap). The female-to-male ratio of women in positions of leadership has also increased, but only by a marginal 0.02, a smaller improvement than in other countries in the region. Similarly, Japan's ratio in gross tertiary enrolment has risen by 0.03, but this is a much smaller improvement than in other countries in the region. The female-to-male ratio in professional and technical jobs has increased by 0.04, in line with other countries in the region, but has not matched the 0.11 increase in South Korea.

More advances on gender equality in work will be needed given the difficult demographics facing Japan. Bringing more women into the labour force will go some way towards reducing the impact of a shrinking labour force—and therefore the economy—at a time when the population is aging rapidly. The number of employees has already peaked and started to decline in Japan. On current population trends, by 2064 the labour pool could shrink by up to one-third, or approximately 25 million people. Japan's old-age dependency ratio—the ratio of the number of people aged 65 and over to the working-age population, and therefore a measure of the economic pressure that aging puts on society—could reach 0.73 in Japan by 2064, according to the UN's base-case population scenario. In other words, every four working-age citizens would have three dependents aged 65 and over.³⁹⁶

³⁹² The time women spend on unpaid care work could increase as an aging population means that there are more elderly people to look after.

³⁹³ OECD labour-force participation rate by sex and age group (<http://stats.oecd.org/index.aspx?queryid=54741#>).

³⁹⁴ Note that female-to-male labour-force participation ratio uses data for age 15 upwards from the ILO for consistency and data availability across all countries. See *The power of parity: How advancing women's equality can add \$12 trillion to global growth*, McKinsey Global Institute, September 2015.

³⁹⁵ "Japanese women are working more, but few are getting ahead", *The Economist*, November 18, 2017.

³⁹⁶ See *Global growth: Can productivity save the day in an aging world?* McKinsey Global Institute, January 2015. Raising women's participation will not be enough to counteract the impact of slowing population growth on labour pools and therefore GDP growth, but it can help. Broadly, an acceleration in productivity growth will be needed. Globally, exceptionally strong GDP growth over the past 50 years fuelled both a rapid growth in the number of workers and their productivity. However, employment growth, which was 1.7 percent between 1964 and 2014, is forecast to drop to only 0.3 percent a year, leaving the onus on productivity to buoy growth. To compensate fully for slower employment growth, productivity growth would need to be 80 percent faster, at 3.3 percent a year.

Exhibit 34

Japan has low gender inequality on four out of 15 indicators but has high or extremely high gender inequality on seven

Level of gender inequality ■ Extremely high ■ High ■ Medium ■ Low

	Japan	Asia Pacific best	Asia Pacific average ¹	Global best
Gender equality in work	0.42	0.73	0.44	0.73
Labour-force participation rate F/M ratio	0.70	0.93	0.60	1.00
Professional and technical jobs F/M ratio	0.66	1.42	0.95	2.66
Perceived wage gap for similar work F/M ratio	0.61	0.78	0.56	0.86
Leadership positions F/M ratio	0.15	0.96	0.25	1.13
Unpaid care work M/F ratio	0.21	0.58	0.25	0.85
Gender equality in society				
Essential services and enablers of economic opportunity	0.87	0.96	0.85	0.97
Unmet need for family planning % of women	20	4	10	4
Maternal mortality Per 100,000 births	5	5	102	3
Education level F/M ratio	0.95	1.00	0.92	1.00
Financial inclusion F/M ratio	0.80	1.00	0.76	1.00
Digital inclusion F/M ratio	0.97	1.00	0.77	1.00
Legal protection and political voice	0.30	0.66	0.32	0.84
Legal protection index	0.51	1.00	0.47	1.00
Political representation F/M ratio	0.14	0.55	0.19	0.93
Physical security and autonomy	0.91	0.96	0.82	0.97
Sex ratio at birth M/F ratio	1.06	1.03	1.11	1.02
Child marriage % of girls and young women	1	0	14	0
Violence against women % of women	15	14	28	6

¹ Weighted average based on 2016 female population.

SOURCE: McKinsey Global Institute analysis

UNDERREPRESENTATION OF WOMEN IN JAPAN'S TOP UNIVERSITIES WEAKENS THE FEMALE TALENT PIPELINE AT AN EARLY STAGE

The lack of women in leadership is a significant area of gender inequality in Japan. Japan's female-to-male ratio for leadership positions is 0.15, meaning that for every 100 men in leadership positions (management level and up in all organisations in Japan, as well as in politics) there are only 15 women. This is less than the regional average of 0.25 and well below the best in region of 0.96. Only Bangladesh, Pakistan, and South Korea have more distance to travel on this gender equality indicator.

Examining the talent pipeline, it is apparent that Japan experiences a significant drop between entry-level jobs and middle management—the largest among the seven countries highlighted in this report. Women account for 49 percent of entry-level workers but only 9 percent of middle managers. Female representation narrows sharply thereafter to only 1 percent of senior managers and 3 percent of board members. Some of the causes, which we detail in Chapter 1, include a lack of interest among females in pursuing leadership positions due to the nature of management roles, and a lack of confidence or role modelling.

The share of women at the very beginning of the pipeline is also a concern. In Japan, 48 percent of those enrolled in tertiary education are female.³⁹⁷ This proportion is significantly lower than in many other countries in Asia Pacific, both advanced and developing (see Chapter 1). Of the seven countries we highlight in this research, only India has a lower share, at 44 percent. The share of women graduating from tertiary education is a shade lower (46 percent); again, only India has a lower share (43 percent).

A concern not highlighted by the talent pipeline data, yet arguably an underappreciated challenge to women's ability to rise through the ranks in business, is the very low share of women at Japan's top universities. This matters because the top universities typically produce the nation's top talent, and their graduates have high potential to be managers and leaders in society.³⁹⁸ It is also particularly important in Japan, where social stratification by institutional affiliation has been a strong aspect of the culture.³⁹⁹ For example, among Japan's top 100 companies by revenue in the 2016 fiscal year, 67 percent of executives attended a top ten Japanese university.⁴⁰⁰ In Japan's 707-member Diet (parliament), 49 percent went to one of the top ten.⁴⁰¹ These ten universities account for approximately 8 percent of the total student population in Japan, emphasising the fact that the nation's most senior leaders tend to be drawn from a narrow pool.⁴⁰²

The deficit of women at Japan's top universities is large. Only 24 percent of students at Japan's top five universities are female, 24 percentage points lower than the national proportion of tertiary enrolled females at all universities, and this share only rises to 28 percent when including the top ten universities—still 20 percentage points lower.⁴⁰³ In the top five universities, Japan has the lowest share of women students among a sample of

³⁹⁷ The differences in the GPS indicators on women in leadership and data on the female talent pipeline reflect different data sources. The GPS indicator uses the ILO manager classification, whereas MGI's women in leadership data are based on a proprietary survey conducted across organisations.

³⁹⁸ Claire Maxwell, Ulrike Deppe, Heinz-Hermann Krüger, and Werner Helsper, eds., *Elite education and internationalisation: From the early years to higher education*, Palgrave Macmillan, 2018. Some factors to consider are networks that occur in peer groups and alumni networks, and the fact that elite universities are typically endowed with the best resources.

³⁹⁹ There is anecdotal evidence of the importance of attending a top university for a successful career. This is also highlighted in Chie Nakane, *Japanese society*, Pelican, 1970.

⁴⁰⁰ Company websites.

⁴⁰¹ Websites of House of Councillors and Diet members.

⁴⁰² Ministry of Education, Culture, Sports, Science and Technology and university websites.

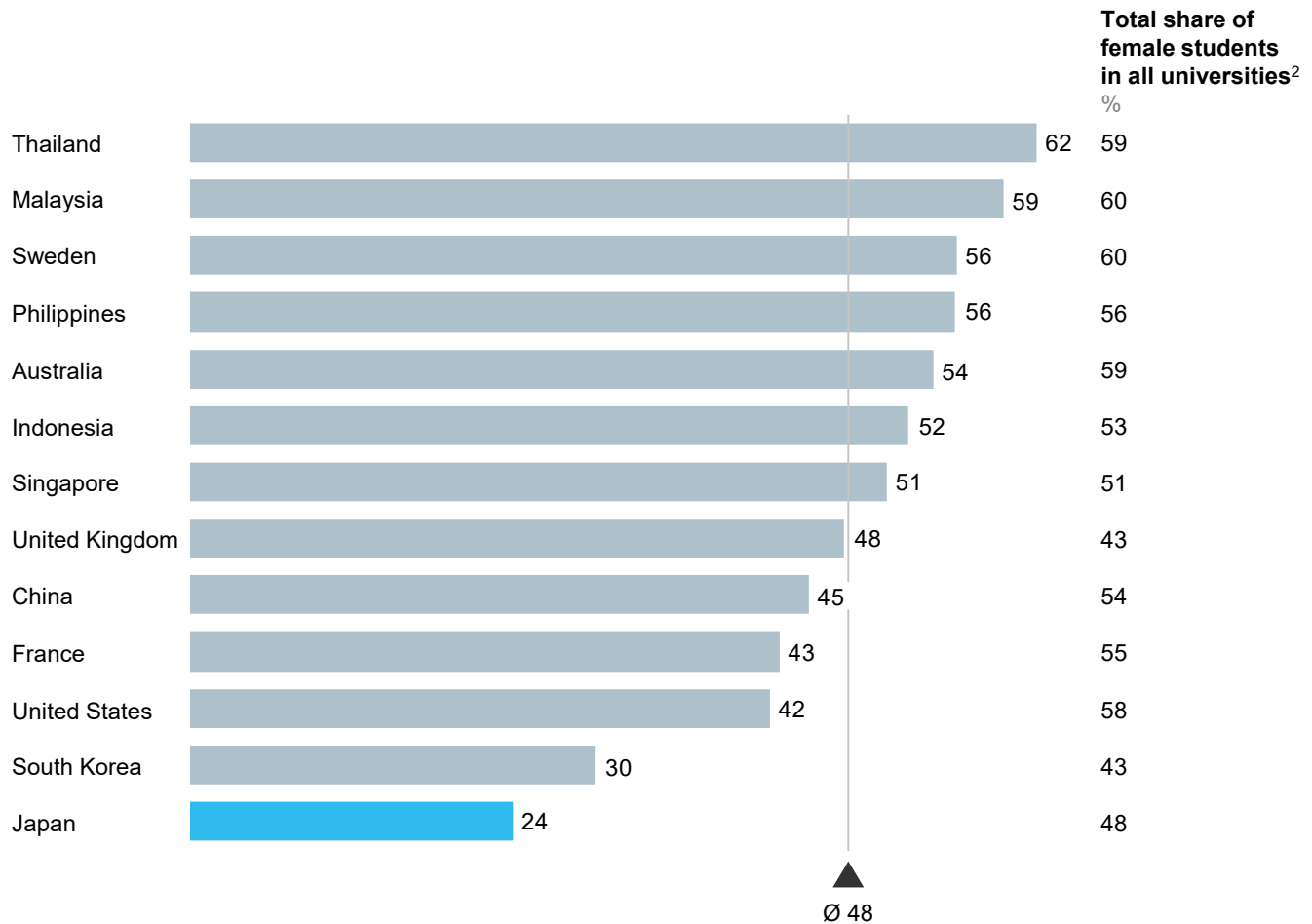
⁴⁰³ Our sample for Japan's top ten universities includes the following from the Times Higher Education Rankings 2018: University of Tokyo, Tohoku University, Kyoto University, Nagoya University, Tokyo Institute of Technology, Osaka University, Kyushu University, Hokkaido University, Waseda University, and Keio University.

Asian countries, Australia, France, Sweden, the United Kingdom, and the United States; the average in that group is 48 percent (Exhibit 35).

Exhibit 35

Japan has the lowest percentage of female students in its top five universities in a sample of advanced and developing economies

Average percentage of female students at top five universities in a sample of countries¹



¹ Top five selected universities based on Times Higher Education; data may not include all top five.

² Based on gross enrolment ratios for men and women (latest year for which data are available).

SOURCE: UNESCO STAT; university websites; Times Higher Education rankings; McKinsey Global Institute analysis

Why are women so underrepresented in Japan’s top universities? A number of factors appear to be relevant. First, girls in high school score lower on, and are less interested in, STEM subjects than boys. Since public university application tests require mathematics and science for the national exam and mathematics for the university’s own entrance exam, regardless of whether the individual is applying for a STEM or non-STEM course, this is likely to put girls at a disadvantage when applying, or even put them off applying, whether for STEM or non-STEM degrees. The gap between boys’ and girls’ scores in mathematics and science subjects included in the OECD’s PISA test for 15-year-olds is larger than in other advanced economies. In mathematics, on average Japanese girls score six points lower and in science ten points lower than the OECD average (Exhibit 36).⁴⁰⁴ OECD data also

⁴⁰⁴ It is, however, important to note that Japanese girls still score among the highest in the world among girls in countries for which PISA data are available.

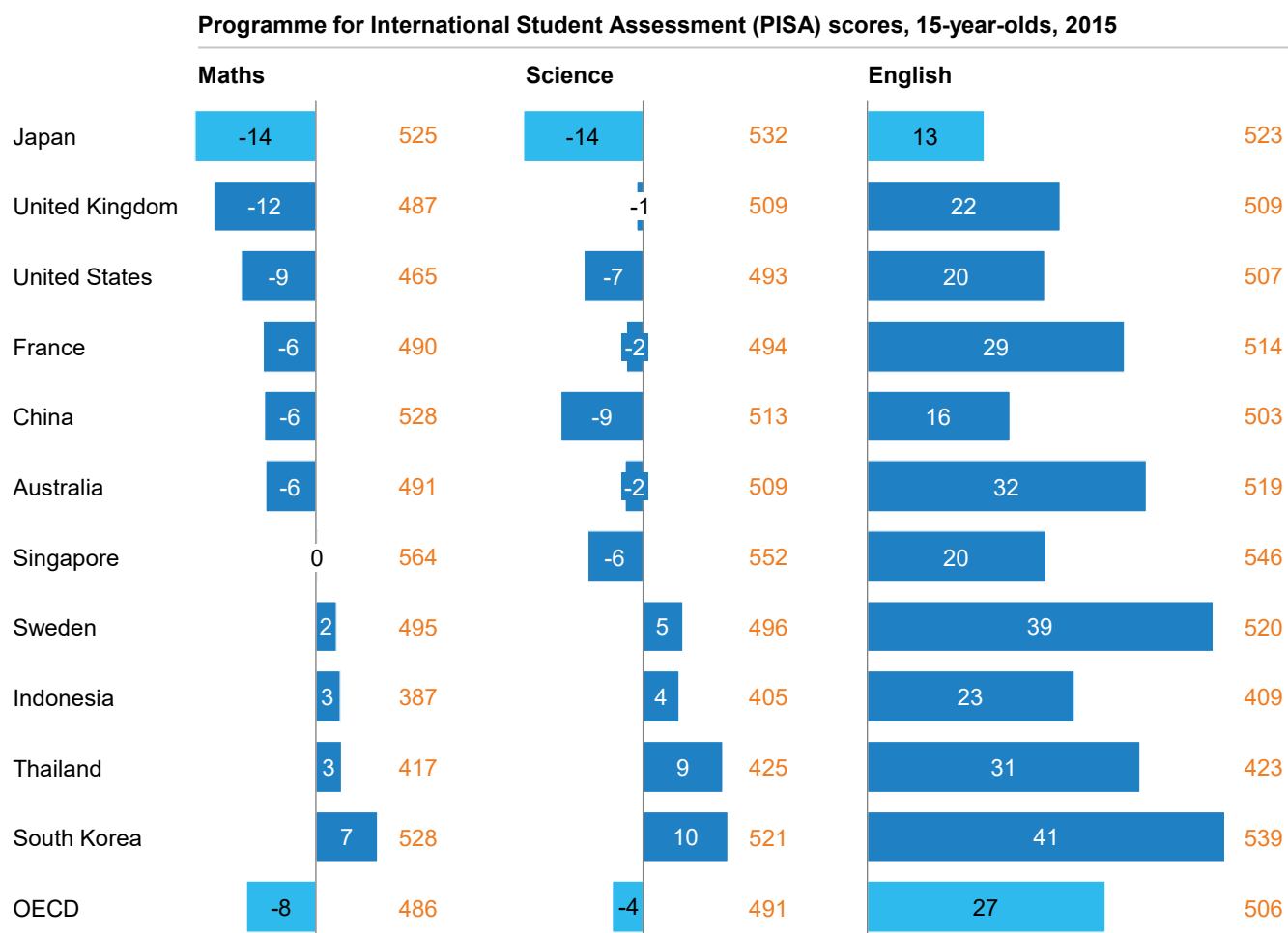
reveal that girls in Japan are less interested in science than boys, and by a far greater margin than the OECD average.⁴⁰⁵

Exhibit 36

Japanese girls' academic performance relative to that of Japanese boys is lower than the OECD average

Difference in scores between females and males

Total female score



SOURCE: OECD Programme for International Student Assessment (PISA) data, 2015; McKinsey Global Institute analysis

It is acknowledged in Japan and in many other countries that female university students are less represented in STEM subjects. However, it is notable that women in Japan's top ten universities are also underrepresented in non-STEM subjects. In these universities, women account for only 38 percent of students in non-STEM majors, 16 percentage points higher than the proportion of STEM majors but 10 percentage points below the national enrolment percentage of 48 percent, and well below the figure of around 60 percent highlighted in a Ministry of Education survey for a number of non-STEM undergraduate majors.⁴⁰⁶ It is notable that Japan's top five private universities, which do not require the national exam or mathematics for non-STEM degrees, have 20 percent higher female representation than

⁴⁰⁵ This is based on the percentage of respondents to the OECD 2015 PISA survey who agreed or strongly agreed with the statement "I enjoy acquiring new knowledge in science". Some 63 percent of boys in Japan, compared with 46 percent of girls, agreed or strongly agreed with this statement. The OECD averages are 69 percent and 64 percent, respectively.

⁴⁰⁶ *Action plan on women's active participation in the workforce: Enhancing corporate competitiveness and achieving sustainable economic growth*, Keidanren, 2014.

public universities. In these private universities, 44 percent of students are female, while the share in the top five public universities is only 24 percent.⁴⁰⁷

A second factor limiting the share of women applying to top universities is that they are marginally less likely to travel outside of their home prefecture to go to university. Data show that women are 5 percent less likely than men to attend university outside the same prefecture as their high school, with 59 percent of males travelling outside their high school's prefecture compared with 54 percent of females in 2017.⁴⁰⁸ One reason for this appears to be worry among parents about their daughters' safety. Tokyo University has noted that a lack of safe and affordable female accommodation was a consistent concern among parents when their children were considering universities. For this reason, the university has started to provide rental subsidies for female students living alone for up to two years, and it is looking into purchasing 100 safe apartments near the university campus.⁴⁰⁹

A third factor is traditional cultural and societal attitudes. The viewpoint that it is not as important for girls to attend top universities as for boys is still widespread in Japan. There is anecdotal evidence that Japanese girls are told that their marriage prospects will suffer if they apply to a top university, and that they are discouraged from choosing "boys' subjects" such as mathematics and science.⁴¹⁰ Views are nuanced and not easy to capture in surveys. For instance, in the World Values Survey, only 16 percent of Japanese respondents agreed that "a university education is more important for a boy than a girl". In Japan's quadrennial survey on public attitudes towards gender inequality, almost two-thirds of respondents said that they believed that girls and boys are treated equally in school.⁴¹¹ These results may reflect the belief that Japanese women should go to university at the same rate as men, which aligns with total female representation being almost 50/50. But it misses the quality factor that is reflected in low representation in top universities. It is interesting to note that only 56 percent of respondents disagreed with the World Values Survey statement above, which is among the lowest in the region. It may be illuminating to research this further through new surveys.

There may be other reasons women aren't going to Japan's top universities that would best be determined by a national survey of female and male high school and university students, along with analysis of university applications and exam data.

⁴⁰⁷ It is important to note that only two of Japan's top five private universities are in the overall top ten. Our sample of top five private universities includes the universities of Waseda, Keio, Sophia, Doshisha, and Kwansei Gakuin.

⁴⁰⁸ *FY2017 college/junior college entrance status by prefecture*, Obunsha Company Education Information Centre, August 2017 (http://eic.obunsha.co.jp/eic/resource/pdf/2017_shingakujokyo/02.pdf).

⁴⁰⁹ Satomi Sugihura, "Todai to offer subsidized rent to encourage female students", *The Asahi Shimbun*, November 15, 2016.

⁴¹⁰ Philip Brasor, "Are female scholars taken seriously in Japan?" *Japan Times*, January 7, 2017.

⁴¹¹ *Public opinion survey on gender equality society*, 2016, Japan Cabinet Office (<https://survey.gov-online.go.jp/h28/h28-danjo/2-1.html>).

JAPAN HAS BEEN INCREASINGLY FOCUSED ON GENDER EQUALITY, AND THE GOVERNMENT HAS BEEN ESPECIALLY PROACTIVE IN RECENT YEARS

Japan has seen an increased focus on gender equality issues in both the public and private sectors over the past decade, particularly since the election of the Shinzō Abe government in 2012. This section looks at some major government and private-sector initiatives.

The Abe government has taken an active stance tackling gender equality

Since 2012, the Abe government has made a drive towards gender parity a prominent part of its broad economic reform programme, known as “Abenomics”. Gender equality featured in government thinking before 2012. The Cabinet Office’s Gender Equality Bureau has produced policy white papers since the 1990s. Its first basic plan for gender equality was published in 2000. However, under the Abe government, gender inequality has risen up the national agenda and has been the focus of a number of explicit commitments and new policies.

One key piece of legislation was the 2015 Act on Promotion of Women’s Participation and Advancement in the Workplace. The act requires all public and private organisations to collect and analyse data on gender and employment, including rates of women newly hired, rates of female managers, and working hours, and requires companies to submit action plans on how to improve gender equality with concrete objectives and measures on the basis of the data collected. To drive transparency, the government set up a website in February 2016 to consolidate the information published by companies. As of December 2016, 99.8 percent of companies required to submit an action plan had done so, but only half had published the information on the public database.⁴¹² The government gave this legislation teeth by creating a certification process; companies whose plans meet certain standards achieve Eruboshi certification and gain “additional evaluation points” in public procurement. As of December 2016, 215 companies had received the certification.

The government listed four types of explicit objectives in its Fourth Basic Plan on gender equality: (1) women’s participation and advancement in all fields of society; (2) safety and security of life; (3) infrastructure improvement on the realisation of a gender-equal society; and (4) implementation of the plan. These four areas are broken further into 12 topics, each with specific targets and metrics. Here we focus on some key initiatives and rates of progress related largely to the first of the four areas, which links most directly with the economic opportunity of advancing women’s equality:⁴¹³

- **Achieve 30 percent female representation in leadership positions throughout Japanese society by 2020:** The original 30 percent aspiration was set in 2003. In December 2015, the Abe government, while remaining committed to the original target over the longer term, set a range of more modest aims in specific areas—for instance, a 10 percent share of managers or equivalent in private companies should be women (the share was 6.6 percent in 2016), and 15 percent for prefectural civil service directors, compared with 9.3 percent in 2016. In 2017, the government noted that the total share of women in leadership positions had increased only slightly, to 13 percent, in 2016, still lower than in Western countries and, within Asia, the Philippines and Singapore. However, making its targets public can help Japan to facilitate further progress.

⁴¹² “Utilizing the act to promote women’s participation to accelerate and expand the advancement of women”, in *White paper on gender equality 2017*, Government of Japan, Gender Equality Bureau, Cabinet Office, 2017.

⁴¹³ “The fourth basic plan for gender equality”, in *Women and men in Japan 2017*, Government of Japan, Gender Equality Bureau, Cabinet Office, 2016 (http://www.gender.go.jp/english_contents/pr_act/pub/pamphlet/women-and-men16/pdf/2-4.pdf); and *Numerical targets and updated figures of the 4th basic plan for gender equality*, Government of Japan, Gender Equality Bureau, Cabinet Office, 2017 (http://www.gender.go.jp/about_danjo/seika_shihyo/pdf/numerical_targets_2017.pdf).

- **Increase the employment rate of women aged 25 to 44 from 68 percent in 2012 to 73 percent in 2020:** Japan is tracking this target well, with the female employment rate rising to 72.7 percent in 2016. The workforce gained more than 1.5 million female workers in approximately four years, an impressive achievement.⁴¹⁴ The increasing number of mothers continuing to work after childbirth has contributed to this increase in working women; 38 percent of mothers were in the workforce in 2011, compared with 53 percent in 2016.⁴¹⁵ However, the share of women who want to shift from temporary or part-time work into regular employment to earn more remains high—the average wage of female general employees was still 27 percent lower than that of men in 2016. To step up efforts to achieve its target, in 2017 the government amended the tax regime to increase the eligible threshold for secondary-income earners to receive a deduction of ¥380,000 to ¥1.5 million. The deduction will decrease gradually for those who earn up to ¥2.01 million. This deduction is removed if the primary earner’s annual salary exceeds ¥12.2 million.⁴¹⁶ This should encourage many housewives working part time to increase their hours of work. The government has also eased restrictions on foreign domestic workers in national strategic special zones as part of its efforts to enable women to work outside the home if they so choose; from 2016, it issued working visas for three years. A shortage of domestic help is one issue that has been identified as a barrier to women working in Japan.⁴¹⁷
- **Increase the percentage of fathers who take paternity leave from 2.6 percent in 2011 to 13 percent by 2020:** In Japan, a man earning an average wage gets 30.4 weeks of fully paid paternity leave, the most of any country in the world, according to an analysis by *The Economist*.⁴¹⁸ However, few men take advantage of this offer. The latest official figures show that 5.5 percent of civil servants took paternity leave, but the figure was only 2.65 percent in private business.⁴¹⁹ One study found that the reason for low uptake is not men—many of them would like to take paternity leave—but the organisational climate in the workplace that deters them from doing so.⁴²⁰
- **Boost the supply of childcare facilities with the aim of eliminating children on daycare waiting lists by 2017:** Between 2013 and 2017, the government exceeded its aim of adding 400,000 childcare places by the end of the period—in fact, it added 530,000. However, demand is still outstripping supply, and the deadline for matching supply to demand was extended to 2021.⁴²¹ The number of children on the waiting list increased to 26,081 in April 2017, and a month later the prime minister announced that the government will increase capacity by an additional 320,000 places in the next five years, the aim being to enable 80 percent of women to participate in the labour force.⁴²²

⁴¹⁴ “Utilizing the act to promote women’s participation to accelerate and expand the advancement of women”, *White paper on gender equality 2017*, Government of Japan, Gender Equality Bureau, Cabinet Office, 2017.

⁴¹⁵ *Gender equality policy in Japan*, Gender Equality Bureau, Cabinet Office, Government of Japan, August 2017 (http://www.gender.go.jp/international/int_kaigi/int_acw3/pdf/contry_presentation_japan_09.pdf#page=14).

⁴¹⁶ *FY2017 tax reform (main points) (Cabinet decision on December 22, 2016)*, Government of Japan, Ministry of Finance (http://www.mof.go.jp/english/tax_policy/tax_reform/fy2017/tax2017a.pdf).

⁴¹⁷ *Utilisation of foreigners conducting housekeeping services*, Cabinet Public Relations Office, Government of Japan (https://www.kantei.go.jp/jp/singi/tiiki/kokusentoc/pdf/gaiyou_English.pdf).

⁴¹⁸ *Expansion of women’s participation in policy and decision-making processes in all fields in society*, Government of Japan, Gender Equality Bureau, Cabinet Office, 2016; “The best and worst places to be a working woman”, *The Economist*, March 8, 2017; and Neha Thirani Bagri, “Japan leads the world in paid paternity leave but fails on nearly every other measure of workplace gender equality”, *Quartz*, March 8, 2017.

⁴¹⁹ *Numerical targets and updated figures of the 4th basic plan for gender equality*, Government of Japan, Gender Equality Bureau, Cabinet Office, 2017 (http://www.gender.go.jp/about_danjo/seika_shihyo/pdf/numerical_targets_2017.pdf).

⁴²⁰ Takeru Miyajima and Hiroyuki Yamaguchi, “I want to but I won’t: Pluralistic ignorance inhibits intentions to take paternity leave in Japan”, *Frontiers in Psychology*, September 20, 2017.

⁴²¹ “Japan extends deadline to eliminate day care waiting list”, *Nikkei Asian Review*, June 1, 2017.

⁴²² *Efforts aimed at resolving waiting lists for public childcare centres*, 2017, Government of Japan, Ministry of Health, Labour and Welfare, April 25, 2017 (<http://www5.cao.go.jp/keizai-shimon/kaigi/special/reform/wg1/290425/shiryu2.pdf>); and “Elimination of childcare waiting lists target postponed”, Reuters, 2017 (<https://jp.reuters.com/article/abe-children-waiting-idJPKBN18ROGM>).

The private sector is becoming more vocal in support of gender equality, and some companies are starting to adopt new policies and practices

Since 1999, when Kathy Matsui of Goldman Sachs coined the term “Womenomics” in a report highlighting the importance of women in Japan’s economy, private-sector engagement on gender equality issues has been increasing. The Goldman Sachs Research Institute has continued to publish Womenomics reports, the most recent of which estimated that closing the gender employment gap could boost Japan’s GDP by almost 13 percent.⁴²³ Keidanren (Japan’s business federation) and the American Chamber of Commerce in Japan have both highlighted various aspects of gender inequality, including a work culture that discourages female advancement and participation, a lack of role modelling to help women in their careers, restrictive labour contracts that disadvantage women, negative tax incentives for second earners (who are predominantly women), a lack of childcare, underrepresentation of women in STEM subjects, and human resources functions that don’t support the development of female talent.⁴²⁴

In addition to publishing research on these topics, companies have become more active advocates for gender equality. For example, in June 2014, nine male business leaders published a “Declaration on action by a group of male leaders who will create a society in which women shine”; by the end of 2017, 144 male leaders had endorsed the declaration.⁴²⁵ Metlife Japan has created a Japan Women’s Business Network for mothers and fathers to offer one another support and share their experiences.

Some companies are now slowly beginning to implement a number of recommendations. In making work more flexible, for instance, Hitachi has set up a satellite office, simplified its systems to enable working from home, and distributed mobile tools such as smartphones. Several companies have been encouraging men to participate in housework and childcare. Nippon Life Insurance Company has an explicit target of 100 percent uptake of paternity leave in its management plan to increase awareness among employees. Sompo Japan Nipponkoa Insurance and The Chiba Bank hold joint gatherings for their female employees to foster career consciousness. Socioak Holdings has created a bonus incentive scheme to celebrate women returning to work after childbirth.⁴²⁶ If the government’s national targets are to be met, the need for more companies to step up such initiatives is clear.

GOVERNMENT AND THE PRIVATE SECTOR CAN WORK TOGETHER TO ENABLE MORE WOMEN TO ACHIEVE SUCCESS IN EDUCATION AND WORK

Despite many new policies, recommendations, and research, the economic potential of many women is still far from being fulfilled. Disappointing progress on advancing women into leadership positions—and the sharp drop-off of women’s share of the workforce from the entry level to management and above—is just one piece of evidence of the significant opportunity that still remains (see Chapter 1 for detail). We see a number of areas Japan might prioritise in order to step up progress towards parity.

⁴²³ *Womenomics 4.0: Time to walk the talk*, Goldman Sachs Portfolio Strategy Research, May 30, 2014.

⁴²⁴ *Untapped potential: A collaborative blueprint for achieving the Japanese Government’s “2020/30” overall target of women holding 30 percent of management and leadership positions by 2020*, Women in Business Committee, The American Chamber of Commerce in Japan, 2016; and *Action plan on women’s active participation in the workforce: Enhancing corporate competitiveness and achieving sustainable economic growth*, Keidanren, April 15, 2014.

⁴²⁵ *Male leaders efforts to promote women’s active role in Japan*, Cabinet Office, Japan (http://www.gender.go.jp/english_contents/mge/declaration/pdf/women_active_role.pdf); and *Gender equality policy in Japan*, Gender Equality Bureau, Cabinet Office, Government of Japan, August 2017 (http://www.gender.go.jp/international/int_kaigi/int_acw3/pdf/contry_presentation_japan_09.pdf#page=14).

⁴²⁶ *Ibid.*

1. Accelerate implementation of specific existing recommendations and policies

- **Accelerate policy change and public services to match market needs:** Some key recommendations from the government and private-sector organisations that require policy changes or enhanced public provision relate to a lack of supply in the childcare market, the need to reform labour laws to create more flexible labour contracts that will accommodate different life choices of men and women, and addressing disincentives in the tax and social system for second income earners.⁴²⁷ The pace of action should attempt to keep abreast of demand, as we noted in the case of childcare places. In the workplace, Japanese organisations need to improve implementation and encourage uptake of programmes that reduce work hours, create flexible ways of working, increase work options for mothers and fathers, and increase use of paternity leave. A major transformation in work practices and mindsets is likely to be needed. McKinsey's Women Matter research has shown that implementation really matters. In Europe, 52 percent of companies have implemented more than 25 gender diversity measures, but only half of them have more than 20 percent women in leadership positions (at the executive level).⁴²⁸
- **Use organisational change best practices to accelerate implementation:** There are some instances of global best practices that Japanese companies could emulate as they focus on implementation. First, companies show commitment to gender equality from the top, with specific metrics, and they cascade accountability to each business unit and function. They establish a compelling case for, and commitment to, gender diversity, using specific metrics and targets throughout the organisation and backing the effort with resources. The CEO of one leading financial services company has committed to achieving 50 percent women at the top and in middle management; executives meet regularly with general managers to review progress towards this goal. A leading insurance company has appointed a chief inclusion and diversity officer supported by task forces to achieve the company's goals. In Japan, some key public figures have committed to the aim of gender parity. One example is former labour minister Yasuhisa Shiozaki, who in 2016 declared himself an "Iku-boss" (someone who values Ikumen—men taking part in caring for children) and committed to creating a working environment that enables men and women the flexibility to take care of parenting responsibilities. In the same year, the share of men working in the labour ministry who took parental leave rose from 13.7 percent to 40.9 percent.⁴²⁹

Second, business leaders make clear how gender diversity initiatives help the organisation to achieve its business objectives. McKinsey's 2018 publication on the impact of diversity in businesses shows that companies in the top quartile for gender diversity on their executive teams are 21 percent more likely to experience above-average profitability; this compares with 15 percent in research three years earlier.⁴³⁰ However, companies may need to invest more time and effort into communicating such benefits, preferably using specific business metrics. One global mining company found that its ten most gender-diverse sites perform 15 percent better than other sites because they have superior safety records and are more productive. An international hospitality and services company found that teams made up of 40 to 60 percent women boost brand image by five percent and increase customer retention by 12 percent.

⁴²⁷ Ibid.

⁴²⁸ *Women Matter: Time to accelerate: Ten years of insights into gender diversity*, McKinsey & Company, October 2017.

⁴²⁹ "Japan prompts more civil servants to take paternity leave", *Japan Times*, January 9, 2018.

⁴³⁰ *Delivering through diversity*, McKinsey & Company, January 2018; *Women Matter: An Asian perspective: Harnessing female talent to raise corporate performance*, McKinsey & Company, 2012; and *Women Matter: Time to accelerate: Ten years of insights into gender diversity*, McKinsey & Company, October 2017.

Third, after determining how gender diversity will impact business metrics, organisations need to design, align, and prioritise initiatives from recruiting to development, retention, and work practices and culture, and measure progress. Two key types of initiative are fostering sponsorship of women and countering gender bias. One leading enterprise software company has developed software to review human resources processes for gender bias. In Japan, Ohta Fukushi Kinenkai, a social-welfare organisation, has identified the need to increase female management by around 30 percent, and it now provides courses for candidates for managerial positions with the aim of increasing the share of female managers.⁴³¹

Finally, organisations adhering to best practices recognise that different parts of the business operate in different contexts. That presents both challenges, such as legal constraints related to definitions of diversity, and opportunities, such as local activism. Effective diversity initiatives tend to be sensitive to different contexts. Challenges that cut across industries offer opportunities for collaboration even with competitors. In Japan's Aichi prefecture, companies can collaborate in a forum set up by Nagoya University. Regional banks are sharing best practices in a group set up by The Chiba Bank.

2. Increase cross-institutional collaboration to foster gender equality

- **Create national and local coalitions of public and private institutions to facilitate sharing of best practices, broaden advocacy, and collaborate on societal issues:** Partnerships of different stakeholders have proven effective in pushing gender equality goals around the world.⁴³² The Ikumen Diet Association and the coalition of male business leaders “who will create a society in which women shine” are two examples in Japan. The country has an opportunity to create more of these institutions and increase collaboration between them, as Australia has done with Male Champions of Change, widely regarded as an example of best practices in collaboration among male private-sector leaders; the Australian Women Against Violence Alliance; and the National Council of Women of Australia, which provides training and awards programmes to highlight female success. In Japan, Prime Minister Abe and Seiichi Matsuo, president of Nagoya University, are both involved in UN Women's HeForShe movement, which has convened ten heads of state, ten global CEOs, and ten university presidents to accelerate progress towards gender inequality in an initiative called IMPACT 10x10x10.⁴³³ Japan could emulate this approach to coordinate action on different aspects of the gender-inequality challenge. Seiichi Matsuo has brought together representatives from the public and private sectors and academia in a forum to promote gender equality in Aichi Prefecture, and is planning more.⁴³⁴

⁴³¹ “Utilizing the act to promote women's participation to accelerate and expand the advancement of women”, *White paper on gender equality 2017*, Government of Japan, Gender Equality Bureau, Cabinet Office, June 2017.

⁴³² Kweilin Ellingrud, Mekala Krishnan, Anu Madgavkar, and Tracy Nowiski, *Opinion: How cross-sector collaborations can accelerate progress toward gender equality*, Devex, November 2017.

⁴³³ IMPACT 10x10x10, HeForShe (<http://www.heforshe.org/en/impact>).

⁴³⁴ *University IMPACT Champion: Seiichi Matsuo*, HeForShe (<http://www.heforshe.org/en/impact/seiichi-matsuo>).

3. Invest in shifting attitudes about the role of women in society and work

- **Run campaigns to celebrate top-performing women professionals and those at top universities:** The government has already started an effective campaign to encourage men to increase their share of work at home through the Ikumen Project launched in 2010 by the Ministry of Health, Labour and Welfare.⁴³⁵ The effort has gathered a lot of media attention and traction in Japan and has been a contributing factor in the increase in paternity leave uptake, as highlighted earlier. In the private sector, a campaign by Japanese cosmetics brand SK-II focused on the stigmatisation of unmarried women in China went viral.⁴³⁶ Such campaigns could be a way to bring attention to female career success stories.
- **Facilitate networks, mentorship, and sponsorship of women from high school through the talent pipeline:** Three ways of shifting attitudes in Japan that are relevant to encouraging women's interest in management roles and encouraging more equal sharing of unpaid care work are mentorship, sponsorship, and public-awareness campaigns (see Chapter 1). Mentoring programmes are becoming increasingly popular in areas related to increasing female entrepreneurship and participation in STEM. The Goldman Sachs programme 10,000 Women is one initiative promoting female entrepreneurs.⁴³⁷ Million Women Mentors is a private-sector-led initiative that aims to support the engagement of millions of STEM mentors to increase the interest and confidence of girls and women to persist and succeed in STEM programmes and careers by 2020. As of February 2018, the movement had attracted 2.3 million pledges and had completed more than one million mentoring engagements.⁴³⁸ Mentoring is important for building skills and a network, and it should occur throughout the talent pipeline, starting as early as high school, to encourage girls to have high aspirations. Sponsorship—the practical creation of opportunities—is also required to help women advance. Organisations could consider creating formal programmes and making promotion of sponsorship a criterion in senior leaders' performance reviews to ensure this happens for women. In the case of public-awareness campaigns, Japan could consider highlighting female role models who have reached the top tier in their fields. Japan has already appointed three female ambassadors to act as role models as part of a G7 initiative intended to raise the number of women in STEM careers.⁴³⁹

4. Increase corporate and public-sector efforts to cultivate female talent from the start of the talent pipeline

- **Provide scholarships for women to attend Japan's top universities:** Japanese organisations, particularly private-sector companies, can do more to identify female talent and then offer scholarships for women to attend top universities. Given rising demand for females in STEM, it makes sense to link some of these scholarships to STEM degrees.
- **Expand the search for female talent beyond the top ten universities, and ensure that women are included in management development programmes:** Organisations can also search for top talent beyond Japan's top universities, particularly for their elite tracks, as it may take some time before there is a higher proportion of females in these top institutions. Of the 1,900 students who passed the exam for getting onto the

⁴³⁵ Ikumen (<https://ikumen-project.mhlw.go.jp/>).

⁴³⁶ Heather Chen, *Emotional advert about China's 'leftover women' goes viral*, BBC News, April 8, 2016.

⁴³⁷ *10,000 Women*, Goldman Sachs (<http://www.goldmansachs.com/citizenship/10000women/>).

⁴³⁸ Million Women Mentors (<https://www.millionwomenmentors.com/>).

⁴³⁹ *G7 initiative on women and STEM: Women's initiative in developing STEM career (WINDS)*, Government of Japan, Ministry of Foreign Affairs (<http://www.mofa.go.jp/files/000159926.pdf>).

managerial track in government ministries, 61 percent attended a top ten university.⁴⁴⁰ A 2014 labour ministry survey highlighted the fact that only 22.2 percent of hires within the elite track of 129 companies were female; on a positive note, that was double the share in 2009.⁴⁴¹

5. Increase the number of females attending top universities

- **Legislate an increase in women’s representation in top universities (for example, requiring targets and action plans):** A number of stakeholders can take action to raise the share of women at Japan’s top universities. Universities can increase their efforts to encourage women to study at their institutions. The government could consider legislation, along the lines of the 2015 Act focused on the workplace, to promote women’s representation in top universities. Legislation could include a requirement for universities to publish more comprehensive gender-disaggregated data on applications, and to publish action plans for addressing gender bias. The government could support universities by monitoring the participation and performance of girls in the National Center Test for University Admissions in order to provide data that universities could use as they put together action plans. The government could also add specific questions about female attendance at top universities to its quadrennial survey of public attitudes on gender equality.⁴⁴² However, the next survey is not due to be conducted until 2020, and there is an argument for designing a survey on this specific issue sooner than that.
- **Provide safe and affordable housing for female students in top universities outside their home prefecture:** More universities could emulate Tokyo University’s offer of a ¥360,000-a-year scholarship for 100 women outside the city to encourage more women to move further away from home to attend top institutions, as well as the university’s investment in safe accommodation for female students.⁴⁴³
- **Review plans to change the National Center Test and entrance conditions for applicants to non-STEM majors to remove gender bias:** Another useful step would be to adjust the university application process to remove bias against women and make it more humane for men and women. Japan’s Ministry of Education, Culture, Sports, Science and Technology is planning to reform the exam by the 2020 academic year, with one aim being to prepare students for the world of work and test their critical thinking. The ministry could look at including measures that tackle gender bias in university applications.⁴⁴⁴ To encourage women to apply to non-STEM degree programmes, public universities could consider removing mathematics and science requirements for students applying to pursue non-STEM degrees, in their own exam, the center test exam, or both.
- **Create a coalition of top universities to develop understanding of gender issues and address them by, for instance, surveying, analysing, and sharing data:** One way to gather momentum would be to create a coalition of top universities, a step that a number of other countries have taken.⁴⁴⁵ In Canada, for instance, university presidents gather at University Canada’s annual membership meeting and recently voted to

⁴⁴⁰ *Announcement of successful participants in Heisei 29 – year National Public Service adopted comprehensive job examination*, National Personnel Authority, June 30, 2017 (<http://www.jinji.go.jp/kisya/1706/sougousaigou.htm>); and *National public service recruitment general job examination 2017*, (<https://resemom.jp/article/img/2017/06/30/38950/172347.html>).

⁴⁴¹ Labour survey, Ministry of Health, Labour and Welfare, 2014 (<http://www.mhlw.go.jp/file/04-Houdouhappyou-11902000-Koyoukintoujidoukateikyoku-Koyoukintouseisakuka/kakusoku2.pdf>).

⁴⁴² *Public opinion poll on gender equality in society*, Cabinet Office, Japan (<https://survey.gov-online.go.jp/h28/h28-danjo/2-1.html>).

⁴⁴³ *Housing assistance for female students*, University of Tokyo (http://www.u-tokyo.ac.jp/stu02/h04_11_j.html).

⁴⁴⁴ Annabelle Timsit, “Overhauling Japan’s high-stakes university-admission system”, *The Atlantic*, January 13, 2018.

⁴⁴⁵ Kweilin Ellingrud, Mekala Krishnan, Anu Madgavkar, and Tracy Nowski, *Opinion: How cross-sector collaborations can accelerate progress toward gender equality*, Devex, November 2017.

commit to seven principles of equity, diversity, and inclusion.⁴⁴⁶ Nagoya University has already established a centre for gender equality and female-only positions to open up opportunities to women academics, and other universities could follow suit. Such a coalition could consider a number of ways to encourage women to enroll at top universities and could examine safety concerns and some women's unwillingness to travel away from home.

6. Increase focus on improving female performance in STEM in high school

■ Review STEM outcomes at high school and create an action plan to improve female participation, scores, and motivation in mathematics and science:

The government's Fourth Basic Plan for Gender Equality, approved by the cabinet in December 2015, specifies the aims of creating environments that promote the participation of women researchers and encouraging female college students and high school graduates to enter scientific fields.⁴⁴⁷ To achieve progress on the latter will require efforts to close the gap between high school girls and boys on STEM educational attainment—and motivation. One way to improve girls' relative STEM results further may be to ensure that there is a higher proportion of female students in classes. There is some evidence that doing so improves girls' scores, at least in less advanced courses.⁴⁴⁸ Another change that Japan might consider is raising the number of female teachers of STEM subjects; there is some evidence that employing fewer female STEM teachers lowers girls' participation in these subjects.⁴⁴⁹ Another option is to look again at “crammer schools”, consider ways to increase the number of girls attending, and, in particular, encourage them to study STEM subjects.⁴⁵⁰

⁴⁴⁶ *Universities Canada principles on equity, diversity and inclusion*, Universities Canada press release, October 26, 2017.

⁴⁴⁷ “The fourth basic plan for gender equality”, in *Women and men in Japan 2017*, Government of Japan, Gender Equality Bureau, Cabinet Office, 2016 (http://www.gender.go.jp/english_contents/pr_act/pub/pamphlet/women-and-men16/pdf/2-4.pdf); and *Gender equality policy in Japan*, Gender Equality Bureau, Cabinet Office, Government of Japan, August 2017 (http://www.gender.go.jp/international/int_kaigi/int_acw3/pdf/contry_presentation_japan_09.pdf#page=14).

⁴⁴⁸ Ozkan Eren, “Differential peer effects, student achievement, and student absenteeism: Evidence from a large-scale randomized experiment”, *Demography*, volume 54, issue 2, April 2017.

⁴⁴⁹ *Closing the gender gap in STEM*, UNESCO Asia-Pacific education thematic brief, August 2016.

⁴⁵⁰ In addition to focusing on encouraging female (and male) students to study STEM fields, the government is also supporting women STEM students and researchers to find employment opportunities. In the 5th Science and Technology Basic Plan, the government states its aim for women to account for 30 percent of newly employed researchers by 2021. See *The 5th Science and Technology Basic Plan*, Government of Japan, January 22, 2016; and *Percentage of female researchers in Japan is 20%, the lowest among 12 countries/ areas surveyed*, Japan Science and Technology Agency, April 7, 2017 (https://scienceportal.jst.go.jp/news/newsflash_review/newsflash/2017/04/20170407_02.html).



Under the current government, “making women shine” throughout Japanese society is a key policy aim, and a great deal of effort has gone into legislation and programmes to make this aim a reality. Yet there is a long way to go, especially in transforming work culture within Japanese organisations and increasing women’s representation in leadership. With a rapidly aging population, the opportunity for Japan to counteract demographic trends, empower women in the workplace, and capture the \$325 billion opportunity is significant.



7. THE PHILIPPINES

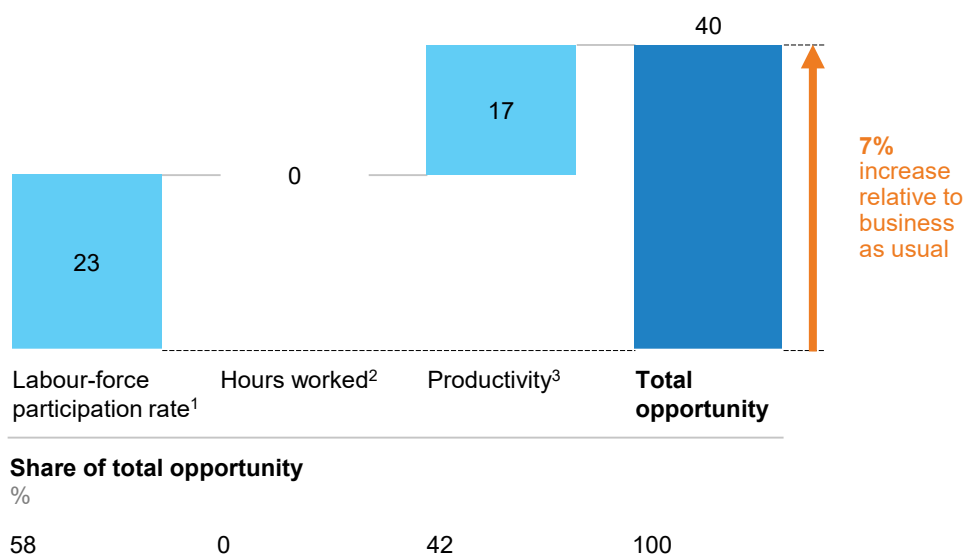
The Philippines could add \$40 billion a year to GDP by 2025, or 7 percent above business-as-usual GDP, in a best-in-region scenario (Exhibit 37). Increased participation by women in the labour force accounts for 58 percent of that additional GDP potential, with a further 42 percent coming from a change in the mix of sectors in which women work.⁴⁵¹

Exhibit 37

The Philippines could add \$40 billion to annual GDP in 2025—7 percent above business as usual

Incremental 2025 GDP from improving gender equality in the best-in-region scenario, relative to the business-as-usual scenario

\$ billion, in 2014 dollars



1 Implies female labour-force participation rate increasing from 50% in 2014 to 61% in the 2025 best-in-region scenario.

2 No opportunity from hours worked due to latest available data from ILO showing mean weekly hours worked for females and males at parity.

3 Implies weighted productivity for females increasing from \$6,000 in 2014 to \$8,000 in the 2025 best-in-region scenario.

NOTE: Numbers may not sum due to rounding.

SOURCE: McKinsey Global Institute analysis

⁴⁵¹ As of 2018, data from ILO show that mean hours worked by men and women are already at parity (41 weekly hours for both), and therefore no additional GDP opportunity is expected from the hours worked lever.



Philippines



GDP opportunity from advancing women's equality¹

\$40 billion

added to annual GDP by 2025 **or** **7%** over business-as-usual GDP by 2025



Gender inequality today²

Level of gender inequality

Extremely high
0 – 0.50

High
0.50 – 0.75

Medium
0.75 – 0.95

Low
0.95 – 1.00

Philippines Asia Pacific best Asia Pacific average Global best

Gender equality in work

0.73

0.73

0.44

0.73

Gender equality in society



Essential services and enablers of economic opportunity

0.91

0.96

0.85

0.97



Legal protection and political voice

0.51

0.66

0.32

0.84



Physical security and autonomy

0.90

0.96

0.82

0.97



Potential measures to capture the GDP opportunity

Government



Revise equal remuneration legislation and mandate gender-equal provision of parental leave



Provide employment programmes and childcare options targeting young mothers



Revise elementary school curricula to remove gender biases



Accelerate implementation of programmes to improve rural maternal health

Companies



Increase access to flexible work options and childcare options



Develop mentorship programmes to encourage women to pursue careers in male-dominated industries



Improve women's access to financial services and products

¹ GDP opportunity in scenario where all countries match their best-in-region country in progress towards gender parity.

² GPS scores are made up of 15 indicators of gender equality in work and society, weighted equally. GPS runs from

0 (no gender equality) to 1.0 (parity); for instance, a 0.95 ratio represents 5% distance from gender parity.

SOURCE: McKinsey Global Institute analysis

The Philippines is traditionally a matriarchal and egalitarian society whose government has proactively legislated to close gender gaps.⁴⁵² It is the region's best performer on women's participation in professional and technical jobs and in leadership positions. However, there is scope for further progress on socioeconomic conditions, which would benefit women in lower-income households in particular. The experience of women in the Philippines still hinges to a marked extent on whether they are wealthy or poor. Women in the upper reaches of the income scale are already close to parity on education, and they have plenty of opportunity to work in technical professions and to rise to senior management positions. But lower-income women still face considerable gender gaps and fewer opportunities.

In this discussion, we look at performance on a range of gender equality indicators both for the Philippines as a whole and for different regions within the country. We look at two key indicators where the Philippines has relative strength on which to build in order to move closer to gender parity: female representation in professional and technical roles, and financial inclusion.

THE PHILIPPINES PERFORMS STRONGLY ON ALL FOUR MAJOR CATEGORIES OF GENDER EQUALITY, WITH SOME REGIONAL VARIATION

The Philippines is further advanced than the Asia Pacific average on gender equality in work; indeed, it is best in region (Exhibit 38). It is Asia Pacific's best performer on women's participation in professional and technical jobs and on leadership positions. On gender equality in society, the Philippines is in line with the average progress made in the region on essential services and enablers of economic opportunity and on physical security and autonomy, but it is further ahead on the journey towards parity on legal protection and political voice (see Box 14, "There are some regional variations across the Philippines on gender equality indicators"). Overall, this means that the Philippines is relatively advanced in its progress towards parity on the global stage. In 2017, it was tenth on the World Economic Forum's ranking of gender parity.

But there is scope for improvement. The experience of women in the Philippines still depends largely on their socioeconomic status. Lower-income women must still confront considerable gender gaps and less opportunity. For educated women, there is scope for greater representation and equal pay in professional and technical fields. Another priority is to increase women's access to finance on an absolute basis.

⁴⁵² Societal rather than economic factors appear to have played a vital role in advancing women's equality in the Philippines. In the pre-colonial era, women owned property, served as community leaders, and officiated at rites and ceremonies. See Mary John Mananzan, *The Filipino women: Before and after the Spanish conquest of the Philippines*, Institute of Women's Studies, Manila, 2003. In general, husbands and wives make joint decisions on household issues. See Connie B. Dacuycuy, *Wages, housework and attitudes in the Philippines*, Philippine Institute for Development Studies discussion paper number 20160-36, November 2016. Women also play a prominent role in politics; Corazon Aquino became the country's first female president in 1986. See Lourdes J. Cruz, "Gender parity and Filipino women in science and technology", in *Women in Science and Technology in Asia*, The Association of Academies and Societies of Sciences, 2015. Further changes in attitudes towards women's role in the family have become more apparent in recent years with the rise in the number of female-headed households and the passage of the Solo Parents Welfare Act of 2000. See Shreyasi Jha and Abha Saxena, eds., *Projected gender impact of the ASEAN Economic Community*, UN Women Asia and the Pacific, 2013.

Exhibit 38

The Philippines has low gender inequality on six out of 15 indicators but has high or extremely high levels of gender inequality on four

Level of gender inequality ■ Extremely high ■ High ■ Medium ■ Low

	Philippines	Asia Pacific best	Asia Pacific average ¹	Global best
Gender equality in work	0.73	0.73	0.44	0.73
Labour-force participation rate F/M ratio	0.64	0.93	0.60	1.00
Professional and technical jobs F/M ratio	1.42	1.42	0.95	2.66
Perceived wage gap for similar work F/M ratio	0.76	0.78	0.56	0.86
Leadership positions F/M ratio	0.96	0.96	0.25	1.13
Unpaid care work M/F ratio	No data	0.58	0.25	0.85
Gender equality in society				
Essential services and enablers of economic opportunity	0.91	0.96	0.85	0.97
Unmet need for family planning % of women	18	4	10	4
Maternal mortality Per 100,000 births	114	5	102	3
Education level F/M ratio	1.00	1.00	0.92	1.00
Financial inclusion F/M ratio	1.00	1.00	0.76	1.00
Digital inclusion F/M ratio	No data	1.00	0.77	1.00
Legal protection and political voice	0.51	0.66	0.32	0.84
Legal protection index	0.70	1.00	0.47	1.00
Political representation F/M ratio	0.37	0.55	0.19	0.93
Physical security and autonomy	0.90	0.96	0.82	0.97
Sex ratio at birth M/F ratio	1.06	1.03	1.11	1.02
Child marriage % of girls and young women	2	0	14	0
Violence against women % of women	18	14	28	6

¹ Weighted average based on 2016 female population.

SOURCE: McKinsey Global Institute analysis

Box 14. There are some regional variations across the Philippines on gender equality indicators

Where data were available, we decomposed the 15 indicators used to calculate the GPS for the Philippines to reveal regional-level gender inequality (Exhibit 39).¹ This analysis shows similar levels of gender inequality on most indicators. Differences can largely be attributed to varying levels of economic development and the decentralised implementation of policy in spheres including social welfare, health, agriculture, and public works.² The largest variation is in leadership positions, followed by unmet need for family planning and maternal mortality. But it is notable that there is gender parity on literacy rates and educational attainment throughout the country's regions, which helps to explain why there is also uniformity across the Philippines on labour-force participation, women's representation in professional and technical jobs, and violence against women. The reason is that gender equality in educational attainment is moderately correlated with professional technical jobs and violence against women.³ Other studies point to the link between education and skills training and women's labour-force participation working in mutually reinforcing loops. In Bangladesh, for instance, studies suggest that education has played an important positive role in determining women's participation in the labour market.⁴

¹ We were not able to find regional data on political representation, legal protection, perceived wage gap for equivalent work, digital inclusion, financial inclusion, and time spent on unpaid care work. In the case of educational levels, regional data on gross tertiary enrolment rates and net secondary enrolment rates were not available. Given these data gaps, we constructed a composite indicator using female-to-male ratios on the adult functional literacy rate and tertiary educational attainment rates.

² Samuel S. Lieberman, *Decentralization and health in the Philippines and Indonesia: An interim report*, World Bank, East Asia and Pacific Region, April 2002.

³ *The power of parity: How advancing women's equality can add \$12 trillion to global growth*, McKinsey Global Institute, September 2015.

⁴ Rachel Heath and A. Mushfiq Mobarak, *Manufacturing growth and the lives of Bangladeshi women*, NBER working paper number 20383, August 2014.

Box 14. There are some regional variations across the Philippines on gender equality indicators (continued)

Exhibit 39

Regions in the Philippines vary on gender inequality

Level of gender inequality ■ Extremely high ■ High ■ Medium ■ Low

Region	Female population 15+, 2015 Thousand	Per capita GRP \$	Labour-force participation rate	Professional and technical jobs	Leadership positions	Unmet need for family planning	Maternal mortality	Sex ratio at birth	Violence against women
			F/M ratio	F/M ratio	F/M ratio	% of women	Per 100,000 live births	F/M ratio	% of women
CALABARZON	5,088	2,978	0.69	1.50	0.79	18	90	1.03	16
National Capital Region	4,791	8,636	0.71	1.13	1.02	14	90	1.04	18
Central Luzon	3,926	2,316	0.60	1.56	0.61	13	50	1.05	16
Western Visayas	3,036	1,529	0.66	2.19	1.01	20	100	1.03	20
Central Visayas	2,033	2,555	0.74	1.66	0.94	19	100	1.04	18
Bicol Region	1,829	1,000	0.63	2.13	1.14	27	100	1.04	25
Ilocos Region	1,757	1,733	0.61	1.87	0.77	19	60	1.04	18
Davao Region	1,608	2,533	0.60	1.66	0.92	18	100	1.05	24
Northern Mindanao	1,512	2,416	0.70	1.84	0.96	20	90	1.05	24
SOCCSKSARGEN	1,464	1,650	0.62	1.89	0.87	16	70	1.04	21
Eastern Visayas	1,418	1,353	0.61	1.90	1.29	12	110	1.06	23
Cagayan Valley	1,178	1,415	0.63	1.86	0.86	16	80	1.04	28
Zamboanga Peninsula	1,162	1,543	0.59	1.91	0.82	21	100	1.03	18
ARMM	1,104	547	0.41	2.07	0.97	28	150	1.05	15
MIMAROPA	936	1,337	0.67	1.86	1.08	21	70	1.04	23
Caraga	823	1,209	0.63	1.81	0.73	14	40	1.04	25
CAR	579	2,673	0.72	1.64	0.96	12	60	1.03	22

NOTE: Some indicators (e.g., political and legal representation) are excluded due to lack of data.

SOURCE: McKinsey Global Institute analysis

The Philippines leads the region on gender equality in work but still lags behind on women's labour-force participation

The Philippines is the most gender-equal country in Asia in the workplace for well-educated and highly skilled women. The Philippines has the best performance in Asia Pacific on women in leadership positions, with a female-to-male ratio of 0.96; New Zealand has the second-highest ratio at 0.67, some way behind. The Philippines is also the regional leader on women's representation in professional and technical jobs, with a female-to-male ratio of 1.42 (more women than men in those positions); again, New Zealand is the next-best performer, with a ratio of 1.25.

Nevertheless, the country's female-to-male labour-force-participation ratio of 0.64 lags behind those of Australia and New Zealand, 0.83 and 0.85, respectively. This reflects relatively low participation among women from less-educated, lower-income backgrounds.⁴⁵³ In 2015, the female labour-force participation rate was 50 percent for those whose highest completed grade was elementary, and 45 percent for those whose highest completed grade was in high school. However, for women who graduated from college, the participation rate was 57 percent.⁴⁵⁴ Women's participation in paid work has increased modestly over the past 15 years, from 48 percent of the female working-age population (aged 15 and over) in 2000 to 51 percent in 2016. However, the female-to-male participation ratio has improved by only 0.04, according to data from the ILO (see Box 15, "Female migrant workers employed overseas add to women's labour-force participation in the Philippines").

A key impediment to women's workforce participation is the unequal share of unpaid care work. According to the Department of Labor and Employment, 30 percent of working-age women report that household or family duties prevent them from participating in the labour market.⁴⁵⁵ In many households, men are presumed to be the main source of economic support.⁴⁵⁶ These attitudes and outcomes are especially apparent among young women, especially those in lower-income families.

Looking at the age breakdown of labour-force participation rates, the largest cohort of women not working is young, aged 15 to 25. This age group accounted for 37.5 percent of women outside of the labour force in 2015, compared with 19.2 percent of women aged 25 to 34, and 12.8 percent of women aged 35 to 44. Of the young women not in the labour force, around 78 percent are not in employment, education, or training (NEET). Breaking down overall NEET rates by gender, the rate for young women is 29.2 percent, which is almost double the rate for young men of 15.5 percent.

⁴⁵³ Higher educational attainment correlates with higher labour-force participation. In the Philippines, 51 percent of primary-educated women participate in the labour force, compared with 57 percent of tertiary-educated women, according to 2012–13 ILO data.

⁴⁵⁴ *2016 gender statistics on labor and employment*, Philippine Statistics Authority, 2016 (<https://psa.gov.ph/sites/default/files/attachments/ird/pressrelease/GSLE%202016%20PUBLICATION.pdf>).

⁴⁵⁵ Fiona MacPhail, *Is gender inequality really so low in the Philippines?* East Asia Forum, March 2015.

⁴⁵⁶ Heather L. Claussen, *Unconventional sisterhood: Feminist Catholic nuns in the Philippines*, University of Michigan Press, 2001.

One survey found that 59.3 percent of girls and young women who do not attend school drop out because of marriage, while 36.5 percent of males who do not attend school cite lack of personal interest.⁴⁵⁷ According to the Philippine Development Plan 2017–2022, women from low-income families are especially vulnerable to dropping out of education and work, as they tend to have children earlier than women in other countries (and pregnancies are often unintended).⁴⁵⁸ According to the United Nations Population Fund, teenage pregnancy costs the nation \$650 million in foregone earnings each year.⁴⁵⁹

⁴⁵⁷ *Annual Poverty Indicators Survey*, Philippine Statistics Authority, 2016.

⁴⁵⁸ *Philippine development plan 2017–2022*, National Economic and Development Authority, 2017. More than one-fifth of women in the country give birth before reaching the age of 20. Among women in the lowest wealth quintile, 37.3 percent of aged 15 to 24 have had a live birth or are pregnant with their first child. In contrast, of women in the highest wealth quintile, only 13.2 percent have had a live birth or are pregnant with their first child. Of women in the lowest quintile, only 5.5 percent have attended or completed college, compared with 62.4 percent in the highest wealth quintile. See National Demographic and Health Survey 2013, Philippine Statistics Authority, August 2014.

⁴⁵⁹ Aya Tantiangco, *PHL loses P33 billion annually for failing to address teen pregnancy—UNFPA*, GMA News Online, October 21, 2016.

Box 15. Female migrant workers employed overseas add to women's labour-force participation in the Philippines

An increasing number of Filipinas are now participating in the labour force by taking opportunities to work overseas. We note that such overseas Filipino workers or OFWs are not counted in official measures of labour participation within the Philippines. OFWs add 5 percent to the total labour force, and the majority of these workers—53.6 percent—in 2016 were women.¹ Regions with lower female labour-force participation tend to have higher shares of OFWs, reflecting the fact that women have not been able to find sufficient employment opportunities in their own country and go abroad instead (Exhibit 40). The government has recognised this trend.² High unemployment rate and low wages have driven the increase in the number of overseas workers. In the Ilocos Region, the Cagayan Valley Region, CALABARZON, and the Autonomous Region in Muslim Mindanao, all of which have relatively lower labour-force participation rates, female OFWs account for an additional 14, 15, 10, and 9 percent of the female labour force, respectively.

There are some social concerns about this trend because an estimated 56 percent of Filipinas working overseas are employed in unskilled jobs such as domestic work (although, we note, they still earn more than their counterparts at home).³ In these roles, women are often seen as vulnerable to abuse and exploitation (see Box 16 for further discussion).⁴

¹ Note that OFWs are included as part of the total population aged over 15 included in the Labor Force Survey.

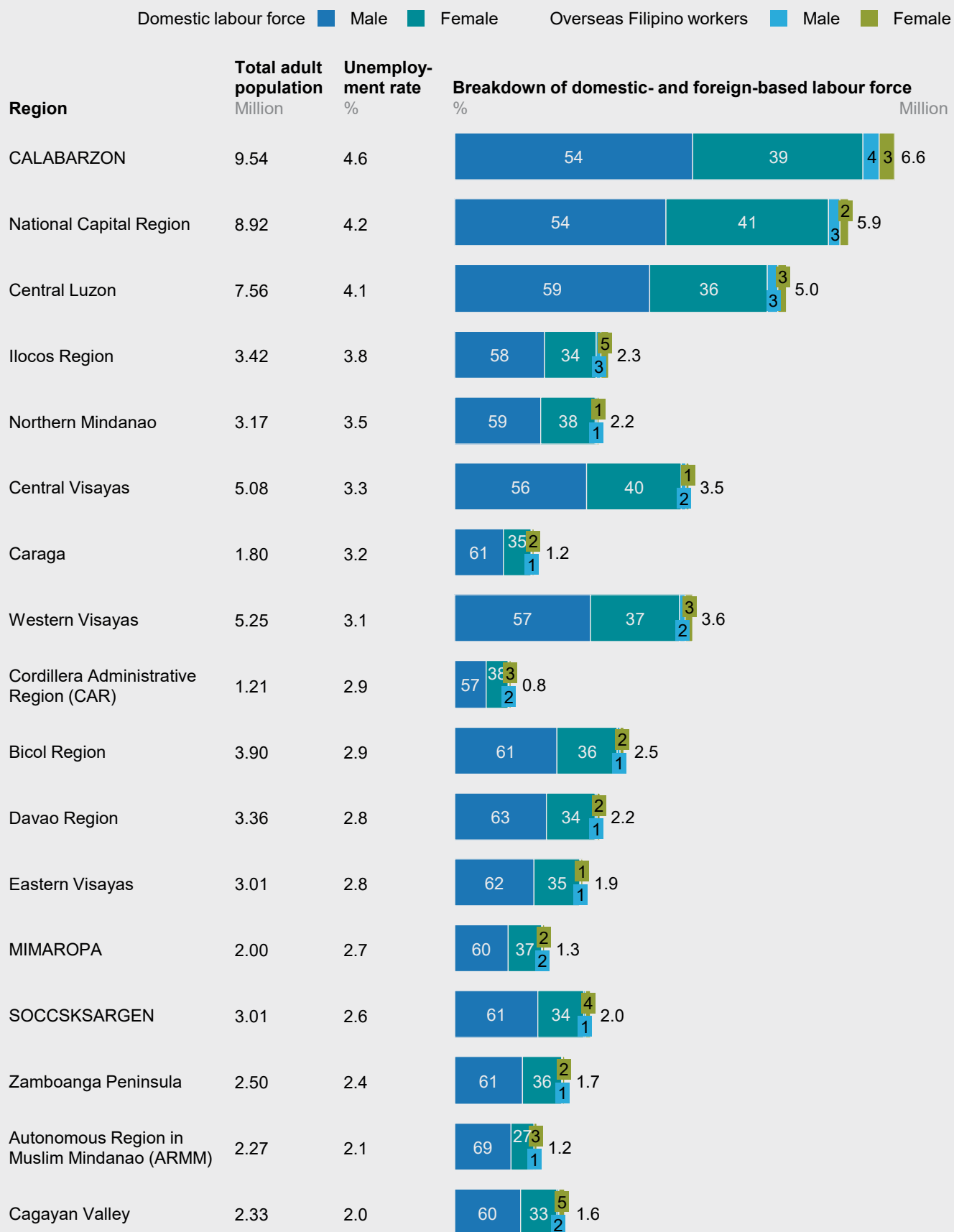
² *Philippine development plan 2017–2022*, National Economic and Development Authority, 2017.

³ See Geoffrey Ducanes and Manolo Abella, *Overseas Filipino workers and their impact on household poverty*, ILO Asian Regional Programme on Governance of Labour Migration, working paper number 5, January 2008; and Fiona MacPhail, *Is gender inequality really so low in the Philippines?* East Asia Forum, March 2015.

⁴ *Philippine development plan 2017–2022*, National Economic and Development Authority, 2017.

Exhibit 40

Regions with higher unemployment tend to have a higher concentration of overseas Filipino workers



NOTE: Numbers may not sum due to rounding.

SOURCE: 2016 Labour Force Survey; 2016 Survey on Overseas Filipino Workers; McKinsey Global Institute analysis

The Philippines has innovative policies to drive gender equality in society, but some gaps remain in gender-focused legislation

Looking at indicators of gender equality in society, we find that the Philippines is in line with best in region on education and financial inclusion, and near best in region on perceived wage gap for similar work, sex ratio at birth, and child marriage.

The Philippines is one of the most advanced countries in the region on legal protection. The government has taken a number of policy and regulatory steps to further gender parity. For instance, the Magna Carta of Women signed in 2009 is a comprehensive human rights law that seeks to eliminate discrimination through the recognition, protection, fulfillment, and promotion of the rights of Filipino women.⁴⁶⁰ The government also set up the Philippines Commission on Women to ensure the inclusion of gender policies at all levels of governance, and the implementation of gender and development budgeting. GAD budgeting requires that a minimum of 5 percent of the national government budget and local government budgets is allocated for gender and development initiatives. GAD budgeting supports projects that offer direct assistance to women, including pilot microfinance programmes to help informal-sector workers open bank accounts, and that provide legal support to improve workplace safety and access to jobs.⁴⁶¹ The capacity of the commission to offer gender-sensitive technical assistance has been enhanced through partnerships with development agencies. One example is the Gender-Responsive Economic Actions for the Transformation of Women Project (GREAT Women), which is supported by Global Affairs Canada (formerly the Canadian International Development Agency). The project has given women entrepreneurs improved access to government services, training in business and leadership skills, business support services, credit assistance, and linkages with local markets.⁴⁶²

However, there is still room to do more. In a policy brief released by the Philippine Commission on Women, the government agency calls for expanding the coverage of the Anti-Sexual Harassment Law, as many women still do not report cases either because of perceived stigma or because their cases do not fall within the purview of the current anti-sexual harassment law (see Box 16, “The Philippines has made strides in providing social protection to domestic help”).⁴⁶³

The Philippines has one of the best performances on women’s political representation in the region; only New Zealand is more advanced towards parity. In the 2016 national elections, 29 percent of candidates elected were women, including the vice president, two senators, and 18 party list representatives.⁴⁶⁴ However, there is still more to do on this indicator, with inequality remaining high in the Philippines (and around the world).

⁴⁶⁰ Salient features of the law include increasing the number of women in third-level positions in government to achieve gender balance within the next five years; providing leave benefits of two months with full pay based on gross monthly compensation for women employees undergoing surgery caused by gynaecological disorders; non-discrimination in military, police, and similar services; and the provision of equal access and elimination of discrimination in education, scholarships, and training. See *Republic Act 9710: Magna Carta of Women*, Philippine Commission on Women (<http://pcw.gov.ph/law/republic-act-9710>).

⁴⁶¹ *Gender equality in the labor market in the Philippines*, Asian Development Bank, December 2013.

⁴⁶² *Ibid.*

⁴⁶³ *Strengthening law enforcement and protection against sexual offenses: Expanding the Anti-Sexual Harassment Law*, policy brief number 5: Philippine Commission on Women, 2016. Note that Senate President Aquilino Pimentel is planning to direct the appropriate Senate committees to look into increasing penalties for acts of sexual harassment and sexual abuse.

⁴⁶⁴ *Number of candidates and elected candidates by sex per elective position*, Commission on Elections, June 2017.

Box 16. The Philippines has made strides in providing social protection to domestic help

There are an estimated 1.7 million female domestic helpers in the Philippines, accounting for 10.8 percent of all employed females and 85 percent of all domestic help.¹ Moreover, newly hired household service workers represented the largest proportion of deployed OFWs in 2015 at 37.8 percent, up from 28.2 percent in 2010.² According to the ILO, domestic workers are often vulnerable as they are employed in private households and are likely to live with their employers. This can isolate them from their own families and networks.³

However, the Philippines has made strides on providing social protection to domestic workers. It has ratified the ILO Convention 189 Concerning Decent Work for Domestic Workers and enacted the Republic Act 10361, also known as the Domestic Workers Law (Batas Kasambahay).⁴ Aside from stipulating the provision of one rest day a week, social security, and health insurance for domestic workers, these regulations have helped reduce the “pay penalty” of being a domestic worker by instituting minimum wage thresholds.⁵ The same protections are not necessarily applied to Filipino domestic workers in other countries, many of whom are vulnerable to abuse and exploitation.⁶

¹ Note that this is just a rough estimate of the number of domestic workers. In this case, we define domestic workers as those employed in private households. This is taken from the July 2016 Labor Force Survey. This does not account for domestic workers employed abroad, as those data are not available as part of the Survey on Overseas Filipino Workers for 2016, or child workers employed as domestic workers. This also does not factor in adults who work as domestic workers as a secondary occupation and persons performing household tasks in the house of wealthier relatives without pay in exchange for education or daily subsistence.

² *Philippine development plan 2017–2022*, National Economic and Development Authority, 2017 (see more at <http://pdp.neda.gov.ph/wp-content/uploads/2017/01/PDP-2017-2022-07-20-2017.pdf>).

³ *Decent work for domestic workers in the Philippines*, ILO, November 2014.

⁴ *Ibid.* Note that the ILO Convention 189 stipulates that domestic workers should have a minimum age and must be protected by written contracts of employment stating minimum wage salary, job description, condition of employment, daily rest, and once a week leave. They are entitled to choose where they live, decide how to spend their day off, and be protected from violence. See *Domestic workers in the Philippines: Profile and working conditions*, ILO fact sheet, 2010 (http://www.ilo.org/wcmsp5/groups/public/@ed_protect/@protrav/@travail/documents/publication/wcms_167021.pdf).

⁵ An ILO study found that domestic workers were paid 40 percent less than other waged employees of the same age, sex, and educational characteristics.

⁶ *Philippine development plan 2017–2022*, National Economic and Development Authority, 2017.

There are some pockets of enduring gender inequality, particularly on essential services and on enablers of economic opportunity, which disproportionately affect lower-income women. The Philippines has the second-highest unmet need for family planning in the region. Access to information about family planning is particularly challenging for poor women—41.9 percent of women in the lowest wealth quintile have not been exposed to any family planning messages through the media, and 65.5 percent of women in the same quintile had not discussed family planning either with a field worker or at a health facility.⁴⁶⁵ We note that 80 percent of Filipinos are Catholic and may not approve of contraception.⁴⁶⁶

The Philippines has the fourth-highest rate of maternal mortality in Asia Pacific. Although the government has made maternal health a key part of its agenda through its Women's Health and Safe Motherhood Project, and it aims to improve the delivery of services, implementation in the various regions of the country has been slow.⁴⁶⁷ Again, the situation varies by income. Seventy-six percent of women from the lowest income quartile say that they are concerned about access to healthcare, and 63.9 percent of them attribute lack of access to not being able to afford treatment.⁴⁶⁸

We now turn to two areas of relative strength on which the Philippines can build as it continues to strive to close remaining gender gaps: female representation in professional and technical roles, and financial inclusion.

FILIPINAS ARE WELL REPRESENTED IN TECHNICAL AND PROFESSIONAL JOBS, BUT THERE ARE WAGE GAPS WITH MEN

Women tend to be more represented than men in professional and technical jobs in the Philippines, with a female-to-male ratio of 1.42 (Exhibit 41). This appears to result from high levels of educational attainment among women, which reflects the broadly egalitarian nature of Filipino society that we have noted.

The evidence suggests a correlation between greater gender parity in educational levels and the likelihood of women working in these types of occupation.⁴⁶⁹ In the World Values Survey, 58 percent of Filipinos surveyed agreed that having a job is the best way for women to be independent, a higher share than among Australians (45 percent), New Zealanders (41 percent), and Singaporeans (47 percent).⁴⁷⁰

⁴⁶⁵ Unmet need for family planning is split between a need for spacing births (7 percent) and limiting births (11 percent). Unmet need for family planning is associated with education—women with no education have the highest level of unmet need, at 24 percent, and women with higher education the lowest at 16 percent. See the National Demographic and Health Survey 2013, Philippine Statistics Authority, August 2014.

⁴⁶⁶ In December 2012, the Philippines passed the Responsible Parenting and Reproductive Health Law, which made contraceptives and sex education more widely available to low-income women. However, a temporary restraining order on contraceptive products believed to be abortifacients was lifted only in November 2017. The Department of Health has since adjusted its budget in order to fully implement the law, which includes the procurement of contraceptives and other health commodities. See *Maternal mortality in the Philippines, The Borgen Project*, June 18, 2015; and Tina G. Santos, *DOH gears to fully implement RH law*, *Inquirer.net*, November 14, 2017.

⁴⁶⁷ Dale Huntington, Eduardo Banzon, and Zenaida Dy Recidoro, "A systems approach to improving maternal health in the Philippines", *Bulletin of the World Health Organization*, volume 90, number 2, 2012.

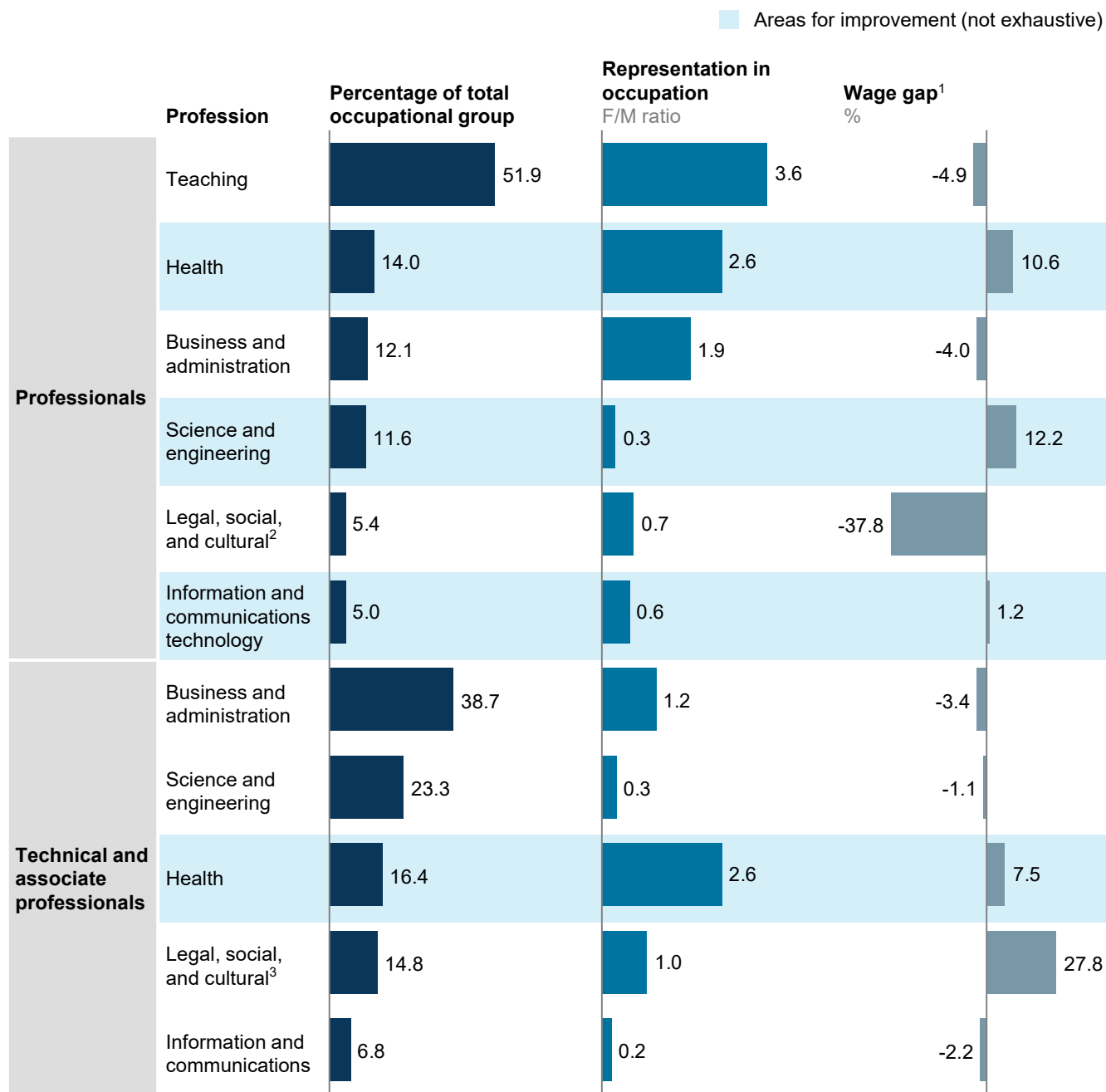
⁴⁶⁸ National Demographic and Health Survey 2013, Philippine Statistics Authority, August 2014.

⁴⁶⁹ *How advancing women's equality can add \$12 trillion to global growth*, McKinsey Global Institute, September 2015.

⁴⁷⁰ *WVS Wave 6 (2010–2014)* (<http://www.worldvaluessurvey.org/WVSDocumentationWV6.jsp>).

Exhibit 41

Women are well represented overall in many professional and technical jobs, but there is room to improve the gender wage gap and participation in professions such as science and engineering



1 The wage gap is calculated by dividing the difference between male average daily basic pay and female average daily basic pay by male average daily basic pay; note that this analysis covers all classes of workers and not just wage and salary workers. This includes all forms of compensation including honorariums and commissions.

2 The largest wage gap is between professionals employed in programming and broadcasting, where men make 22% of what women make; the total pay of women engaged in programming and broadcasting activities is 7% of the total wages collected by the entire legal, social, and cultural professionals category.

3 The largest wage gap is in sports activities and amusement in recreation activities, wherein women make 43% of what men make; the total pay of men in this industry group is 5% of the total wages collected by the entire legal, social, cultural and related professionals category.

SOURCE: July 2016 Labour Force Survey, Philippine Statistics Authority; McKinsey Global Institute analysis

Despite the high representation of Filipinas in professional and technical jobs, their pay lags behind that of men. One 2017 study found that 66.9 percent of all professionals are women, but that they earn 8.5 percent less on average than their male counterparts. In the case of technicians and associate professionals, women account for 51.1 percent of total employment but earn 11.3 percent less than men.⁴⁷¹ In the World Economic Forum's 2015 Executive Opinion survey, a score of 0.76 emerged in answer to the question "In your country, for similar work, to what extent are wages for women equal to those of men?"⁴⁷² This score suggested that there is a perceived wage gap in the Philippines. Over the past four years, the score on that question has risen by 0.04 in the Philippines, indicating some increase in the perception that women are paid the same as men for similar work. Within professional and associate professional/technician roles, Filipinas tend to be more represented in historically female-dominated fields such as healthcare and teaching, but underrepresented in historically male-dominated fields such as science and engineering, and information and communications. The exceptions are business and administration, and legal, social, and cultural professionals, which tend to be male-dominated fields in other countries. In the Philippines, at both the professional and associate professional level, women are more represented than men in business and administration, while women and men are almost at parity in legal, social, and cultural professions.

Looking at wage gaps in different professional and technical roles, for the most part women and men are almost at parity—indeed, women earn more overall in most of these occupations. However, wage gaps remain in the Philippines among science and engineering and associated professionals, health professionals and associate professionals, and ICT professionals.

THE PHILIPPINES HAS ACHIEVED GENDER PARITY ON FINANCIAL INCLUSION, BUT ABSOLUTE LEVELS OF INCLUSION REMAIN LOW

The Philippines has achieved gender parity on financial inclusion—a key way to empower women economically. MGI's global research has found that financial inclusion correlates strongly with the presence of women in the labour force and in professional and technical jobs. Boosting financial inclusion can lead to higher labour-force participation, fewer low-productivity informal jobs, and more access to capital and skills development.⁴⁷³

In contrast to the situation in other countries, Filipinas are 16 percent more likely than men to be financially included in terms of owning an account at a formal financial institution or using some type of formal or commercial financial product, even taking into account income, education, and other factors.⁴⁷⁴

However, the level of inclusion—for men and women—remains low compared with other Asian countries, indicating scope for improvement that will benefit both sexes. Only 31.3 percent of adults have a formal bank account, which is lower than in similar economies in the region.⁴⁷⁵ Indicators of relatively weak financial inclusion for both genders include the fact that 86 percent of households do not have a deposit account, reflecting the fact that

⁴⁷¹ Jose Ramon G. Albert and Jana Flor Vizmanos, *Closing the gender gap in economic opportunities*, Rappler, February 2, 2017.

⁴⁷² Using the country survey score provided by the World Economic Forum, we scaled the original score (1 to 7) to zero to 1 and arrived at a score of 0.76.

⁴⁷³ *The power of parity: How advancing women's equality can add \$12 trillion to global growth*, McKinsey Global Institute, September 2015.

⁴⁷⁴ Globally, 55 percent of men worldwide have an account, compared with 47 percent of women—and the disparity is even larger when looking only at developing economies and people living on less than \$1.25 a day. See *Enhancing financial capability and inclusion in the Philippines: A demand-side assessment*, International Bank for Reconstruction and Development and World Bank Group, 2015.

⁴⁷⁵ For instance, the share is 78.1 percent in Thailand and 80.7 percent in Malaysia. See World Bank 2014 Global Financial Inclusion Database.

many of them do not have sufficient funds to put in such an account.⁴⁷⁶ Fourteen million Filipinas, or 44 percent of the adult female population, remain financially excluded.⁴⁷⁷ However, there are significant regional variations.⁴⁷⁸

Female entrepreneurs in micro and small businesses in sectors including agriculture as well as wholesale and retail trade still face financial barriers. In 2015, 17 percent of all working women were employed in agriculture, hunting, and forestry, according to the Philippines Statistics Authority.⁴⁷⁹ While there are no laws preventing women from owning property, only a small percentage of women-owned assets can be used as collateral to gain access to credit facilities.⁴⁸⁰ Women farmers therefore also face barriers to accessing extension services, skills development, and improved farming equipment, and they need help to overcome these hurdles. In 2015, 28 percent of employed women worked in wholesale and retail trade. In these sectors, women entrepreneurs face barriers to registering a business, limited access to capital and credit due to a lack of collateral, and difficulties accessing value-enhancing inputs such as business development services, technology, and training. There is scope for the government and financial institutions to work together to design financial products and services targeted specifically at women.⁴⁸¹

Despite this mixed picture, across all regions of the Philippines, women are in broad terms economically empowered, which offers an opportunity to increase their financial inclusion—and, in turn, strengthen that economic empowerment. According to the National Demographic and Health Survey 2013, the majority of married women aged 15 to 49 make all of the major decisions in their households either individually or jointly with their husbands. Even in the Autonomous Region in Muslim Mindanao, which has the lowest financial inclusion index score, 79.6 percent of women are responsible for all major household decisions. The same survey found that the majority of married women who had received cash earnings for employment in the 12 months preceding the survey decided how to use their earnings either independently or jointly with their husbands. In the Autonomous Region in Muslim Mindanao, that share is 96.1 percent.

A number of institutions are now offering financial services explicitly aimed at women, and others can emulate these approaches and broaden the effort. There is evidence that microfinance institutions and banks are now designing products and services to increase financial inclusion for women in the Philippines. The Center for Agriculture and Rural Development, the Philippines' largest microfinance institution, largely targets landless women, providing microloans, insurance, training, and ICT, and supports women with microbusinesses and SMEs. Multilateral agencies are also active. The Asian Development Bank and the International Fund for Agricultural Development provided the government of the Philippines with a \$31 million credit line for loans to budding entrepreneurs among

⁴⁷⁶ *Consumer finance survey, Bangko Sentral ng Pilipinas*, 2014. Note that in January 2018 the Bangko Sentral ng Pilipinas approved the creation of a basic deposit account with no maintenance and dormancy fees, and has incentivised banks offering this product with zero reserve ratio requirements, the intention being to reduce barriers to opening an account.

⁴⁷⁷ *Enhancing financial capability and inclusion in the Philippines: A demand-side assessment*, International Bank for Reconstruction and Development and World Bank Group, 2015.

⁴⁷⁸ Significant variations in levels of financial inclusion are exacerbated by the archipelago geography of the country—75 percent of adults in the National Capital Region report using a formal financial product or service, but only about 45 percent of adults in Cagayan, Soccksargen, and Zamboanga. See *Enhancing financial capability and inclusion in the Philippines: A demand-side assessment*, International Bank for Reconstruction and Development and World Bank Group, 2015.

⁴⁷⁹ *Gender equality in the labor market in the Philippines*, Asian Development Bank, December 2013.

⁴⁸⁰ In practice, parents who own property tend to bequeath land to their sons, but ensure the future of their daughters by investing in education. Moreover, the presence of conflicting and discriminatory provisions in the Family Code in the Philippines further restricts asset ownership by women. See Shreyasi Jha and Abha Saxena, eds., *Projected gender impact of the ASEAN Economic Community*, UN Women Asia and the Pacific, 2013.

⁴⁸¹ *Gender equality in the labor market in the Philippines*, Asian Development Bank, December 2013.

the rural poor, and 97 percent of the 620,000 individuals who received microfinance were women.

THE PHILIPPINES MUST ACCOUNT FOR SOCIOECONOMIC DIFFERENCES WHEN TAKING ACTION TO ADVANCE GENDER EQUALITY

As the Philippines strives to close remaining gender gaps, policy and programmes need to factor in distinct socioeconomic differences in patterns of gender inequality, addressing barriers that face both less educated and highly educated women, and those with low and higher incomes. Some approaches, particularly those directed towards more educated, women on higher incomes, may need to be adjusted; others that are relevant to less educated, lower-income women may need broad changes. Here we suggest a few key priority areas related to boosting female participation for both groups of women that the Philippines may consider.

1. Increase access to, and equal provision of, family-friendly policies in the workplace

- **Mandate gender-equal provision of parental leave:** The Philippines could consider amending paternity leave policies not only to promote more equitable sharing of childcare responsibilities among men and women to enable women to enter the labour market if they so choose, but also to shift societal attitudes towards gender roles.⁴⁸² The country's Paternity Leave Act stipulates that married men should receive seven days of full pay, while the Maternity Leave Act provides that married women have the right to 60 days on full pay.⁴⁸³ This differential treatment of paternity and maternity leave not only reinforces gender divisions of time in child-rearing but also leads to differences in hiring costs for men and women because they spend different amounts of time out of the workforce.⁴⁸⁴ In Sweden, each parent is entitled to 240 days of parental leave, and should a parent decide not to take them, they can be transferred to the partner.
- **Increase flexible work options and part-time options for all workers:** Although a high proportion of women in the Philippines are qualified for careers in science, the percentage of women in this field drops off steeply, from 51 to 56 percent at the bachelor of science level to 33.5 percent at the "outstanding young scientist" level. This decline often relates to a young woman's decision to start a family.⁴⁸⁵ For women to have careers in science and discharge family responsibilities, the Philippines could consider enhancing return-to-work support and offer more access to flexible working arrangements. Expanding access to flexible work arrangements may help increase the number of—and retain—women in the field, as could efforts to create more inclusive work environments. IBM in the Philippines provides flexible work options to employees to help them better manage family responsibilities.⁴⁸⁶

⁴⁸² Andrew D. Mason et al., *Toward gender equality in East Asia and the Pacific: A companion to the World Development Report*, World Bank, 2012. Note that in the *Philippine development plan 2017–2022*, it is part of the legislative agenda to extend maternal leave benefits to at least 100 days for women in both the public and private sectors. There is also a parallel initiative to increase paternity leave benefits to 14 days to further ease the burden of caring for an infant (see more at <http://pdp.neda.gov.ph/wp-content/uploads/2017/01/PDP-2017-2022-07-20-2017.pdf>).

⁴⁸³ Note that the Senate approved the Expanded Maternity Leave Law of 2017, a bill granting an additional 60 days of maternity leave to expectant mothers as well as 30 days' leave to fathers, in March 2017. See *Senate bats for increase in maternity leave from 60 days to 120 days*, Senate of the Philippines press release, March 6, 2017.

⁴⁸⁴ *Gender equality in the labor market in the Philippines*, Asian Development Bank, December 2013.

⁴⁸⁵ Lourdes J. Cruz, "Gender parity and Filipino women in science and technology", in *Women in science and technology in Asia*, The Association of Academies and Societies of Sciences, 2015.

⁴⁸⁶ Interview with Emmeline Verzosa, Philippine Commission on Women, December 12, 2017.

One form of flexible working, teleworking, is particularly valuable in the Philippines, which loses approximately \$60 million a day in productivity due to traffic congestion.⁴⁸⁷ Because of this, people spend more time on the road, are less productive and more fatigued, and spend less time with family. Teleworking not only would help women to better balance their work and family responsibilities, but would also raise productivity.

- **Increase access to employer-assisted or employer-provided childcare options:** The Philippines has a combination of relatively high fertility rates and a widespread societal view that women should take greater responsibility than men in the home. Familial responsibility is one of the most cited reasons that women leave the workforce, especially those from lower-income households who cannot afford household help. Philippine companies must provide greater access to childcare to help retain talent.⁴⁸⁸ Under the Department of Labor and Employment's Family Welfare Program, companies are given assistance and tax incentives to put daycare facilities in place.⁴⁸⁹ However, the Asian Development Bank still views a lack of childcare as a major barrier to women's participation.⁴⁹⁰

2. Introduce policies and programmes to improve gender balance in male-dominated industries

- **Revise elementary school curricula to remove gender biases:** In engineering, most courses attract more men than women, with the exceptions of industrial engineering and materials science and engineering.⁴⁹¹ In IT-related fields, the Philippines is moving close to gender parity in education at the tertiary level.⁴⁹² However, according to the 2016 Philippine Labor Force Survey, there is gender imbalance in the IT workforce in professional and technical jobs. Some of the barriers to women working in male-dominated fields are attitudinal. Adjusting curricula in schools and training institutions can help tackle gender biases. In Indonesia, a recent evaluation of textbooks found that there was a strong gender bias from the sixth grade onwards in which men were portrayed as earners and women as housewives. This evaluation led to the government's incorporating the theme of gender equality into primary and secondary school curricula.⁴⁹³ In Central Luzon, the Department of Education has already begun to train teachers to ensure gender-responsive lessons by using a gender lens in the curriculum, textbooks, teaching and learning, assessment strategies, and the design of school facilities.⁴⁹⁴ This pilot could be scaled up and extended to the rest of the Philippines to help prevent negative gender stereotypes from forming at the primary and secondary education levels.

⁴⁸⁷ *Billions of pesos lost in traffic; Legarda pushes for sustainable transport*, Senate of the Philippines press release, January 24, 2017.

⁴⁸⁸ Interview with Sharon Dayoan, Filipina CEO Circle, December 20, 2017.

⁴⁸⁹ Although the Philippines requires the government to provide childcare in every barangay (the smallest administrative division), implementation is inadequate. See *Gender equality in the labor market in the Philippines*, Asian Development Bank, December 2013. Firms like Nestle Philippines and government agencies, like the Commission on Audit, provide daycare centres for their employees. See Commission on Audit website; and Amita Legaspi, *DOLE asks firms to put up daycare centers*, GMA News Online, May 19, 2008.

⁴⁹⁰ *Gender equality in the labor market in the Philippines*, Asian Development Bank, December 2013.

⁴⁹¹ Lourdes J. Cruz, "Gender parity and Filipino women in science and technology", in *Women in science and technology in Asia*, The Association of Academies and Societies of Sciences, 2015.

⁴⁹² *2016 statistical handbook on women and men in the Philippines*, Philippine Statistics Authority, 2016.

⁴⁹³ Andrew D. Mason et al., *Toward gender equality in East Asia and the Pacific: A companion to the World Development Report*, World Bank, 2012.

⁴⁹⁴ *GEMS-CL: Addressing gender equality issues in schools*, Department of Education, Republic of Philippines, April 3, 2017.

- **Develop mentorship programmes to encourage women to pursue careers in male-dominated industries:** As discussed in Chapter 1, sponsorship and mentorship programmes have a significant impact on women’s success in the workplace. Employers that have taken effective action globally to retain women include Bechtel, which reduced female resignations from 20 percent in 2013 to 9 percent in 2015 through a detailed Six Sigma analysis of gender data, introducing speed mentoring that offered women frequent opportunities to find senior supporters, and establishing family focus groups to concentrate on areas for improvement. IBM also provides an informal sponsorship programme that helps senior management identify and provide guidance for high-potential female leaders.

3. Strengthen economic incentives for women to remain in the workplace

- The Philippines can make more progress on perceived gender wage gap for similar jobs. In many technical and professional fields such as health, women tend to be paid less than men despite being more represented in employment in these sectors. According to the Asian Development Bank, the Philippines’ legislation on equal remuneration does not conform to the ILO’s Equal Remuneration Convention (number 100) or the Convention on the Elimination of All Forms of Discrimination against Women adopted by the UN General Assembly in 1979. It is clear that existing legislation has not been sufficient to address the disparity between men and women’s wages.⁴⁹⁵ Providing a more comprehensive equal remuneration law will make an important contribution to increasing women’s participation in the labour force. Companies can also take initiative, identifying gender wage gaps and acting on them. Cisco, for instance, conducts an annual audit of gender wage gaps and adjusts employees’ salaries to erase them.

4. Reduce barriers to labour-force participation for young mothers and single parents

- **Improve childcare support for single parents and young mothers:** Access to, and the affordability of, childcare remain issues in the Philippines. The country recently released the Expanded Maternity Health bill, which included providing for maternity leave that is transferable to alternate caregivers up to the fourth degree of consanguinity or kinship (for example, great-aunt or great-uncle, great-great grandparent, or first cousin), but there are doubts about how extensive uptake is likely to be. To ensure that single parents feel supported, the government could track uptake of maternity leave and encourage employers to provide incentives for employees to find childcare relief through expanded maternity leave options. In the United Kingdom, for example, Santander has introduced an early extension of shared parental leave to grandparents to create additional working flexibility for parents. Philippine companies may consider such an approach.⁴⁹⁶ The government can also study alternative measures to help address the barriers young mothers face, including providing childcare subsidies for domestic workers. The cost of offering single parents further childcare support could be assessed against the possible economic benefit of enabling these parents to work.
- **Provide employment and education programmes for young mothers:** Poorly educated women in the Philippines tend to marry and have children at an early age and to have more children closer together. This curtails their ability to participate in the labour force for a relatively long time.⁴⁹⁷ Teenage mothers drop out of school and are subsequently less likely to pursue further education and skills training. Teenage mothers are statistically less likely to work as many hours (and less likely to work at all) as women who have children later. In the United Kingdom, an organisation called Extended Family

⁴⁹⁵ *Gender equality in the labor market in the Philippines*, Asian Development Bank, December 2013.

⁴⁹⁶ *Santander, finalist 2016, the Centrica Best for Modern Families Award*, Working Families case study library (<https://www.workingfamilies.org.uk/employers/case-studies/modern-families/santander-finalist-2016-the-centrica-best-for-modern-families-award/>).

⁴⁹⁷ *Labor force participation of women in the Philippines across the life cycle*, Philippine Statistics Authority, 2013.

provides financial assistance to single parents and their children. Providing opportunities for young mothers to return to the workplace is key to being able to engage them in the world of work once they have had their children. In the UK county of Cornwall, the Young Mums Will Achieve project helps develop skills in mothers aged 14 to 18 while providing free childcare, thereby lowering barriers to these women's continuing education.⁴⁹⁸ In India, women-led self-help groups provide skills-building training in handicrafts and educate young mothers and pregnant women about life-saving health, hygiene, and feeding practices.⁴⁹⁹ In the Philippines, many programmes help out-of-school youth to make the transition into employment, but no large-scale initiatives are aimed at helping young mothers return to education or the workforce.⁵⁰⁰ It is worth noting that the Magna Carta of Women does not allow the dismissal of students who get pregnant out of wedlock.

5. Use financial products and services to increase economic empowerment for less-educated women

- **Scale up existing measures targeting unbanked areas to expand women's financial inclusion:** As noted, financial inclusion is correlated with higher labour-force participation. The stage is set for effective action to broaden access to finance for women in the Philippines given the historically matriarchal culture of the country, which should mean that women are relatively likely to be financially literate and take up financial products if offered.⁵⁰¹ More women than men have personal bank accounts or accounts with microfinance institutions. Setting explicit policy objectives and quantitative targets can help to increase women's financial inclusion. Indonesia has a national financial inclusion strategy that considers women in different target income groups and differences in access, needs, and preferences for financial services (including a greater motivation to save). Although Bangko Sentral ng Pilipinas, the central bank of the Philippines, conducts a national baseline survey on financial inclusion, it does not disaggregate data by gender.
- **Provide adjacent services to increase economic empowerment for less-educated women:** Financial institutions offering agribusiness products can broaden their customer base by catering to women. Women are more likely than men to be responsible for subsistence crops, but also to lack access to income from those crops. Women receive less agricultural extension training and credit. They also are less likely to be able to inherit or purchase land.⁵⁰² However, while men tend to engage in manual labour, women manage expenses for the household and for the business, and therefore make the important decisions.⁵⁰³ It makes sense to provide more services to women. Indeed, some companies have found that marketing agricultural products to women has led to more sales in the Philippines than marketing to men. For financial institutions catering to microentrepreneurs, providing business education, access to capital, and

⁴⁹⁸ Emma Harte and Joanna Hofman, "What is being done in Europe to get mothers back to work?" The RAND Blog, RAND Corporation, April 25, 2016.

⁴⁹⁹ Ishita Akhoun, *How women in India are able to help each other through self-help groups*, Youth Ki Awaaz, May 24, 2017.

⁵⁰⁰ USAID has partnered with the Technical Education and Skills Development Authority (TESDA) government agency to provide training to reintegrate out-of-school youth in Mindanao back into the workplace with its Mindanao Youth for Development Program. See *Out-of-school youth learn trades in the Philippines*, USAID, July 2016. TESDA also provides gender sensitivity drills to its trainers. For example, through the Sari-Sari Store Training and Access to Resources programme, trainers are provided training centred on basic gender and development concepts, gender division of labour, and gender relations and women economic empowerment. See *TESDA trainers get gender sensitivity drills*, TESDA, October 28, 2014.

⁵⁰¹ Note that in some unbanked areas in Mindanao, women have created their own self-help groups to empower themselves to become more financially responsible. These groups teach women the importance of saving money, budgeting, and pooling savings to start a small business. See Charity Durano, *Self-help groups bolster rural women in southern Philippines*, Global Sisters Report, January 25, 2018.

⁵⁰² *Gender equality in the labor market in the Philippines*, Asian Development Bank, December 2013.

⁵⁰³ Interview with Amy Lunistra, International Finance Corporation, December 12, 2017.

networks can empower women to access other financial products, such as insurance and savings. In the Philippines, social enterprise Hapinoy's HapiSkwela programme for sari-sari store owners has helped more than 3,000 women become more effective microentrepreneurs by providing them with education, access to capital, and expansion into new businesses, including solar solutions and over-the-counter medication.⁵⁰⁴ Another potential model the Philippines could emulate is the establishment of women-focused financial institutions. In China, the Bank of Deyang provides financial services solely to women entrepreneurs.

6. Accelerate implementation of programmes to improve maternal health in rural and isolated areas

■ Improve access to maternal healthcare and information for women in rural areas:

As we have noted, access and affordability remain the largest barriers to pregnant women from low-income families receiving healthcare, with a significant negative impact on maternal health. In 2010, pregnancy complications in the course of labour, delivery, and the six weeks after birth accounted for 38.4 percent of all maternal deaths.⁵⁰⁵ One factor behind this loss of life is the uneven distribution of healthcare providers. Less than 20 percent of active medical practitioners are employed in public facilities, which cover nearly 70 percent of the population's healthcare needs. Most healthcare workers are located in urban areas.⁵⁰⁶ It is clear that more healthcare providers are needed in rural areas, many of them remote, and that one way to step up provision for these communities is through mobile means. Delivering health information via mobile is becoming increasingly common in developing countries. In Myanmar, Ooredoo has developed a free mobile app with information about maternal health and the location of the nearest doctor.⁵⁰⁷ Training more healthcare workers in rural areas is part of the equation. In Ethiopia, for instance, the Health Extension Program trains local healthcare providers and helps to ensure that more women get access to quality but affordable healthcare.

■ Engage local government units in tracking health outcomes of expectant mothers:

Given the decentralised nature of policy implementation in the Philippines, it is up to local governments to find creative ways to improve and track maternal outcomes.

⁵⁰⁴ Hapinoy (www.hapinoy.com).

⁵⁰⁵ *Maternal deaths by main cause*, Republic of the Philippines National Government Portal (<http://www.doh.gov.ph/Statistics/Maternal-Deaths-By-Main-Cause>).

⁵⁰⁶ Esperanza I. Cabral, "The Philippine health agenda for 2016 to 2022", *Philippine Journal of Internal Medicine*, volume 54, number 2, April–June 2016.

⁵⁰⁷ *How advancing women's equality can add \$12 trillion to global growth*, McKinsey Global Institute, September 2015.



The Philippines has already made significant advances towards gender parity and has established a solid foundation on which to build further progress. Thus far, the greatest benefits have been experienced by better-off women in society, and the next challenge is to support lower-income women to make the most of their economic potential, pursue careers that will earn them higher wages, and give them the support and flexibility they need. For all women in the Philippines, there is work to do on closing wage gaps with men, enhancing access to the finance that will enable them to found and run successful businesses, and provide the flexibility and support that women need to better balance their home and working lives.



8. SINGAPORE

Singapore is a unique economy—a city-state with a small geographic area, a modest population, but a dynamic and relatively large economy. Given the country’s limited land area, the state has tended to prioritise making the most of its people to develop the economy further; this is a distinctly meritocratic society.⁵⁰⁸ Singapore’s rapid industrialisation, the spread of public education, changing attitudes towards the employment of women, delayed marriage, and governmental support of working women are all factors that have helped establish Singapore as one of the most progressive countries on gender equality in Asia Pacific.⁵⁰⁹

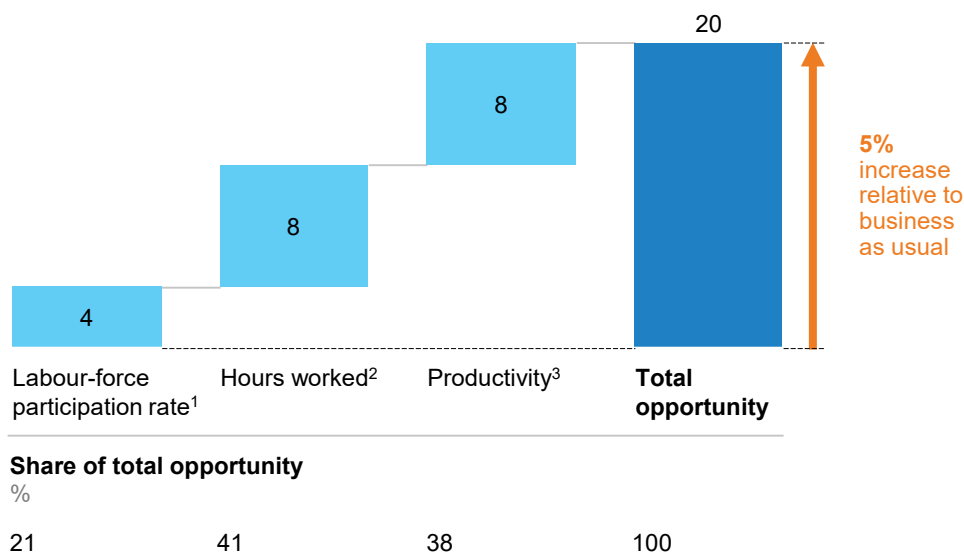
Nevertheless, Singapore is not as far ahead on the journey towards gender parity as other advanced economies, and there is still significant scope to boost growth from narrowing gender gaps further. Singapore could increase its annual GDP by \$20 billion a year in 2025, or 5 percent above business-as-usual GDP in a best-in-region scenario (Exhibit 42).

Exhibit 42

Singapore could add \$20 billion to annual GDP by 2025—5 percent above business as usual

Incremental 2025 GDP from improving gender equality in the best-in-region scenario, relative to the business-as-usual scenario

\$ billion, in 2014 dollars



1 Implies female labour-force participation rate increasing from 60% in 2014 to 64% in the 2025 best-in-region scenario.

2 Implies full-time equivalent rate for females increasing from 95% in 2014 to 99% in the 2025 best-in-region scenario.

3 Implies weighted productivity for females increasing from \$95,000 in 2014 to \$125,000 in the 2025 best-in-region scenario.

NOTE: Numbers may not sum due to rounding.

SOURCE: McKinsey Global Institute analysis

⁵⁰⁸ Karen Mui-Teng Quek and Carmen Knudson-Martin, “A push toward equality: Processes among dual-career newlywed couples in collectivist culture”, *Journal of Marriage and Family*, volume 68, issue 1, February 2006.

⁵⁰⁹ Jean Lee, “Perception of women managers in Singapore: A media analysis”, *Asia Pacific Business Review*, volume 11, number 2, June 2005.



Singapore



GDP opportunity from advancing women's equality¹

\$20 billion

added to annual GDP by 2025 **or** **5%** over business-as-usual GDP by 2025



Gender inequality today²

Level of gender inequality

Extremely high
0 – 0.50

High
0.50 – 0.75

Medium
0.75 – 0.95

Low
0.95 – 1.00

Singapore

Asia Pacific best

Asia Pacific average

Global best

Gender equality in work

0.68

0.73

0.44

0.73

Gender equality in society



Essential services and enablers of economic opportunity

0.94

0.96

0.85

0.97



Legal protection and political voice

0.36

0.66

0.32

0.84



Physical security and autonomy

0.96

0.96

0.82

0.97



Potential measures to capture the GDP opportunity

Government



Introduce equal remuneration laws



Expand family-friendly leave options, including gender-balanced parental leave



Encourage digital access for women without mobile phones



Invest in shifting attitudes about the role of women in society and work (e.g., awareness campaigns)

Companies



Analyse and resolve gender pay gap, including by sharing best practice



Increase availability of flexible work options and return-to-work programmes



Offer incentives for women to participate in SkillsFuture



Reduce university and workforce barriers to women participating in STEM fields

1 GDP opportunity in scenario where all countries match their best-in-region country in progress towards gender parity.

2 GPS scores are made up of 15 indicators of gender equality in work and society, weighted equally. GPS runs from 0 (no gender equality) to 1.0 (parity); for instance, a 0.95 ratio represents 5% distance from gender parity.

SOURCE: McKinsey Global Institute analysis

An increase in the number of hours worked by women accounts for 41 percent of the GDP potential, a higher share of women in higher-productivity sectors 38 percent, and increased women's participation in the labour force 21 percent. The relatively low contribution to the GDP opportunity from women's participation reflects the fact that Singapore has already made some progress on this front. For this reason, in this chapter we focus on measures to capture the economic opportunity from improving gender equality. We home in on two specific aspects. First, we look at what can be done to help women balance their family responsibilities with work more effectively so that they can participate in the labour market if they so choose—and in full-time, rather than part-time, jobs. Second, we explore the need to improve efforts to equip women with the skills they need to increase their representation in high-paying jobs and high-growth sectors such as ICT, transport, and construction.

SINGAPORE HAS LOW OR MEDIUM GENDER INEQUALITY ON MOST INDICATORS, YET STILL LAGS BEHIND OTHER ADVANCED ECONOMIES

Singapore has achieved above-average progress towards gender equality in work and essential services and enablers of economic opportunity. Its progress on legal protection and political voice is in line with the Asia Pacific average, but Singapore is further advanced than the average on physical security and autonomy—on this dimension, it is best in region (Exhibit 43).

Exhibit 43

Singapore has low gender inequality on five indicators out of 15, but has high or extremely high gender inequality on three

Level of gender inequality ■ Extremely high ■ High ■ Medium ■ Low

	Singapore	Asia Pacific best	Asia Pacific average ¹	Global best
Gender equality in work	0.68	0.73	0.44	0.73
Labour-force participation rate F/M ratio	0.76	0.93	0.60	1.00
Professional and technical jobs F/M ratio	0.91	1.42	0.95	2.66
Perceived wage gap for similar work F/M ratio	0.78	0.78	0.56	0.86
Leadership positions F/M ratio	0.52	0.96	0.25	1.13
Unpaid care work M/F ratio	No data	0.58	0.25	0.85
Gender equality in society				
Essential services and enablers of economic opportunity	0.94	0.96	0.85	0.97
Unmet need for family planning % of women	11	4	10	4
Maternal mortality Per 100,000 births	10	5	102	3
Education level F/M ratio	0.96	1.00	0.92	1.00
Financial inclusion F/M ratio	1.00	1.00	0.76	1.00
Digital inclusion F/M ratio	0.96	1.00	0.77	1.00
Legal protection and political voice	0.36	0.66	0.32	0.84
Legal protection index	0.64	1.00	0.47	1.00
Political representation F/M ratio	0.17	0.55	0.19	0.93
Physical security and autonomy	0.96	0.96	0.82	0.97
Sex ratio at birth M/F ratio	1.07	1.03	1.11	1.02
Child marriage % of girls and young women	0	0	14	0
Violence against women % of women	No data	14	28	6

¹ Weighted average based on 2016 female population.

SOURCE: McKinsey Global Institute analysis

There is scope for progress on three indicators—women’s share of leadership positions in business, legal protection, and political representation:

- **Leadership positions:** Looking at the female-to-male ratio of individuals in leadership positions, Singapore has half as many women as men (0.52). As discussed in Chapter 1, the main bottlenecks for Singapore are at the senior management and board levels. Singapore has started to address underrepresentation of women at the board level through initiatives such as BoardAgender, which seeks to increase the number of women serving at this level by raising awareness of the benefits of gender-balanced businesses and by encouraging more women to contribute their expertise in the boardroom.⁵¹⁰
- **Legal protection:** In 2017, the Convention on the Elimination of Discrimination Against Women noted that Singapore has not created a legal definition for direct and indirect discrimination against women.⁵¹¹ The World Bank Women Business and Law database also shows that the country currently does not have laws mandating non-discrimination based on gender in hiring or laws stipulating equal remuneration for women and men for work of equal value.⁵¹² Moreover, a 2014 ruling by Singapore’s Supreme Court declared that the constitution does not prohibit discrimination on the grounds of sex or gender.⁵¹³
- **Political representation:** Women account for only 24 percent of members of parliament and 9 percent of ministerial or Cabinet roles.⁵¹⁴ These outcomes may be linked with attitudes about women’s roles. In the World Values Survey, 45.6 percent of Singaporean respondents agreed with the statement “On the whole, men make better political leaders than women do”. This compares with 21.9 percent of respondents in Australia and 15.1 percent in New Zealand. However, more women have run for political office in Singapore in recent years, and the country installed its first women president in 2017. The share of parliamentary seats held by women has increased since 2000.⁵¹⁵

Although there are still large gender gaps in Singapore, the city-state has made considerable advances, too.⁵¹⁶ The women’s labour-force participation rate doubled from 28.2 percent in 1970 to 59.7 percent in 2016 (see Box 17, “Foreign domestic workers have helped enable the increase in female labour-force participation in Singapore”). During the 1970s and the 1980s, Singapore posted robust growth in export-oriented manufacturing, and many women joined the labour force to work in factories. In the 1990s, new employment opportunities for women opened up in banking, finance, and telecommunications. In recent years, the government has put in place a range of policies to help women manage the competing demands of family responsibilities and paid work, including paid maternity leave,

⁵¹⁰ BoardAgender (<http://www.boardagender.org/about/background>).

⁵¹¹ *Reporting status for Singapore*, UN Office of the High Commissioner for Human Rights (http://tbinternet.ohchr.org/_layouts/TreatyBodyExternal/Countries.aspx?CountryCode=SGP&Lang=EN).

⁵¹² World Bank Women, Business, and Law database, 2016.

⁵¹³ In Article 12(2) of the constitution, the Supreme Court did not prohibit discrimination on the grounds of gender, while in Article 12(1), discrimination is explicitly defined only for religion, race, descent, and place of birth. To date, discrimination has not been incorporated into a general, overarching provision of the constitution. See *Reporting status for Singapore*, UN Office of the High Commissioner for Human Rights (http://tbinternet.ohchr.org/_layouts/TreatyBodyExternal/Countries.aspx?CountryCode=SGP&Lang=EN).

⁵¹⁴ Women held 24 out of 101 parliamentary positions as of January 1, 2017, according to the Inter-Parliamentary Union database. As of December 2017, Singapore had two female Cabinet members out of 21.

⁵¹⁵ Andrew D. Mason et al., *Toward gender equality in East Asia and the Pacific: A companion to the World Development Report*, World Bank, 2012.

⁵¹⁶ Lenore Lyons, “Singapore: Contradictions in the work/care regime”, in *Women, work and care in the Asia Pacific*, Marian Baird, Michele Ford, and Elizabeth Hill, eds., Routledge, 2017; and Michelle M. Lazar, “Equalizing gender relations: A case of double-talk”, *Discourse and Society*, volume 4, issue 4, October 1, 1993.

paid and unpaid childcare leave, increased tax relief, tax rebates, and childcare subsidies.⁵¹⁷ Nevertheless, Singapore's female-to-male labour participation ratio still lags behind those of other advanced economies in the region. Singapore is more advanced towards parity on participation than the Asia Pacific average of 0.60, but less so than Australia and New Zealand.

Singapore has increased its female-to-male ratio in professional and technical jobs by 0.07 over the past decade, to 0.91 today. In the past, many women were not sufficiently qualified to fill these jobs, but the government has helped raise levels of female educational attainment. The share of women with at least a secondary education increased from 57 percent in 2011 to 71 percent in 2015. But Singapore lags behind the region's other advanced economies—namely Australia and New Zealand—on progress towards parity on women's representation in professional and technical jobs.

⁵¹⁷ Ibid; and *Population trends*, 2016, Singapore Department of Statistics, 2016 (http://www.singstat.gov.sg/docs/default-source/default-document-library/publications/publications_and_papers/population_and_population_structure/population2016.pdf). This has contributed to nearly 110 girls per 100 boys enrolled in tertiary education and up. See *Projected gender impact of the ASEAN Economic Community*, UN Women Asia and the Pacific, 2016.

Box 17. Foreign domestic workers have helped enable the increase in female labour-force participation in Singapore

As Singapore industrialised and more women entered the workforce, demand for additional help in the home increased. In 1978, the government responded with the Foreign Domestic Servant Scheme. This enabled women from other countries to be employed as domestic help, facilitating an increase in Singaporean women's labour-force participation.¹ Among married women, the participation rate rose from 26 percent in 1970 to 64 percent in 2016, a 145 percent increase.² Experts estimate that the 1978 legislation increased the labour participation of women by 3.1 to 6.2 percent.³

From a base of 5,000 in the 1970s, the number of foreign domestic workers grew 4,700 percent to 243,000 in 2017.⁴ Today, one of every seven households in Singapore

employs a domestic worker, the majority of whom are migrants.⁵ Demand is expected to grow further, to 300,000 by 2030.⁶ Singapore offers these foreign workers protection under the Employment of Foreign Manpower Act.⁷ Protection includes a requirement that employers pay salaries promptly and provide food, rest days or compensation in lieu of rest days, accommodation, medical care, and safe working conditions. However, the ILO notes that Singapore is the only country in the Association of Southeast Asian Nations yet to ratify its Convention on Domestic Workers. Doing so would help to assuage concerns in countries that source these workers, including the Philippines, which have hinted that they will stop sending live-in maids abroad unless they are guaranteed better working conditions.

¹ Brenda S. A. Yeoh, Shirlena Huang, and Joaquin Gonzalez III, "Migrant female domestic workers: Debating the economic, social and political impacts in Singapore", *The International Migration Review*, volume 33, number 1, spring 1999.

² *Census of population, 1980—release no. 9*, Singapore Government, Department of Statistics, Ministry of Culture, press release, October 24, 1981 (<http://www.nas.gov.sg/archivesonline/speeches/record-details/7b87587c-115d-11e3-83d5-0050568939ad>); and *Report: Labour force in Singapore 2016*, Ministry of Manpower, January 26, 2017.

³ Tiago Freire, "How the 1978 foreign domestic workers law increased the labor supply of Singaporean women", *Singapore Economic Review*, volume 61, issue 05, December 2016.

⁴ *Foreign workforce numbers*, Ministry of Manpower.

⁵ *A passage to hope: Women and international migration*, State of World Population 2006, UNFPA, 2006.

⁶ *Projection of foreign manpower demand for healthcare sector construction workers and foreign domestic workers*, occasional paper, Singapore National Population and Talent Division, November 2012.

⁷ *MOM statement on Research Across Borders study*, Ministry of Manpower, December 2017.

Singapore has closed gender gaps considerably on digital inclusion, according to MGI's GPS analysis, which uses a composite measure of the female-to-male ratios of individuals using the internet and using mobile phones, but there is scope to do more. Australia, New Zealand, and the Philippines have all reached gender parity on digital inclusion, and this should be Singapore's aim given the government's strategy to capitalise on Industry 4.0—the use of new technologies like artificial intelligence and the Internet of Things to transform manufacturing and other industries.⁵¹⁸ Today, 88.7 percent of women use a mobile phone, compared with 96.6 percent of men, and 77.7 percent of women use the internet vs. 80.1 percent of men.⁵¹⁹

HELPING WOMEN TO BALANCE FAMILY AND WORK IS NECESSARY TO ENABLE THEM TO PARTICIPATE IN THE LABOUR FORCE AND PURSUE FULL-TIME OPTIONS

Singapore has already made strides on women's participation, but it now has an opportunity to match the performance of other advanced economies in the region. This imperative is likely to become more pressing as Singapore's population ages, raising the pressure on women to care for elderly relatives and potentially affecting their ability to engage in paid employment (see Box 18, "An aging population may hinder increased women's participation").

Education cannot explain why Singapore still lags somewhat behind other advanced economies on the female-to-male labour-force participation ratio. In 2015, the female-to-male ratio on adult literacy for residents over the age of 15 years was 0.96. In 2016, 74 percent of men and 68 percent of women over the age of 25 had secondary or higher educational qualifications, and 31 percent of men and 27 percent of women were educated to the university level.

Moreover, the pattern of participation in Singapore is rather unusual. The gap between women and men on labour-force participation shrinks from the ages of 25 to 29 to reach parity, but then the gap widens again when women are in their 30s and beyond. In contrast, the ratio in OECD countries takes a small dip when women are in their 30s but rises again when women enter their 40s and return to the workforce, likely after starting families (Exhibit 44). The rate of decline in Singapore's female-to-male ratio of labour-force participation is also steeper than in other advanced economies.

⁵¹⁸ Johan Aurik, *Which countries are best prepared for the future of production?* World Economic Forum, January 2018.

⁵¹⁹ ITU World Telecommunication/ICT indicators database 2017.

Box 18. An aging population may hinder increased women's participation

Singapore's population is aging. The number of people aged 65 years and over could almost triple to 588,000 by 2025 from 193,000 in 2005 as life expectancy is expected to increase.¹ The old-age-dependency ratio is expected to fall from 5.2 in 2014 to 2.1 in 2030, suggesting that more time will be needed to care for the elderly. Women have traditionally taken on this role.² In one survey of Singaporeans outside the labour force who cited caring for family or relatives as the main reason for not working, 84.3 percent were women.³ Although the government has taken several measures to expand elderly-care options outside the home, many families still find it hard to afford or access care. In many households, especially those unable to employ foreign domestic workers, young female relatives leave work or cut down their hours to care for elderly relatives.⁴ This is a risk to women's higher participation as they add looking after the elderly to caring for their children.⁵

Singapore has another demographic pressure on its labour force in addition to aging—declining fertility rates. The total fertility rate has declined continuously over the past decade and is now one of the lowest in the world (1.2 in 2015) according to the World Bank.⁶ If this continues, it could both hold back growth in the labour force and put further pressure on dependency ratios. The government has instituted programmes to try to reverse this trend.⁷ It is important to note that improving female labour-force participation rates need not come at the expense of improving fertility rates.⁸

¹ Lenore Lyons, "Singapore: Contradictions in the work/care regime", in *Women, work and care in the Asia Pacific*, Marian Baird, Michele Ford, and Elizabeth Hill, eds., Routledge, 2017; and Michelle M. Lazar, "Equalizing gender relations: A case of double-talk", *Discourse and Society*, volume 4, issue 4, October 1, 1993. Note that the size and share of the population aged 65 years and over have increased sharply across OECD economies. See *MTI occasional paper on population and economy*, Ministry of Trade and Industry, 2012.

² National Population and Talent Division data from 2012. The old-age dependency ratio refers to the number of residents aged 20 to 64 years old per resident 65 years and over.

³ Breaking down shares of women who cited caregiving for family or relatives as the main reason for not working by age group, 29.8 percent were women aged 60 and over, 21.8 percent women aged 50 to 59, and 22.1 percent women aged 40 to 49. See *Family and work*, Insight Series paper number 4, Ministry of Social and Family Development, 2017.

⁴ The government is hoping to increase the number of nursing beds for the elderly by 50 percent by 2020. Currently, only 2 percent of all elderly are in institutionalised elderly-care homes, which are often oversubscribed with long waiting lists. Note that most foreign domestic workers lack skills or training in physical and mental healthcare needs, which means that many individuals still find available care as sufficient. See Lenore Lyons, "Singapore: Contradictions in the work/care regime", in *Women, work and care in the Asia Pacific*, Marian Baird, Michele Ford, and Elizabeth Hill, eds., Routledge, 2017.

⁵ Linda Y. C. Lim, "Beyond gender: The impact of age, ethnicity, nationality and economic growth on women in the Singapore economy", *Singapore Economic Review*, June 2015.

⁶ Mengni Chen, Paul S. F. Yip, and Mui Teng Yap, "Identifying the most influential groups in determining Singapore's fertility", *Journal of Social Policy*, volume 47, issue 1, January 2018.

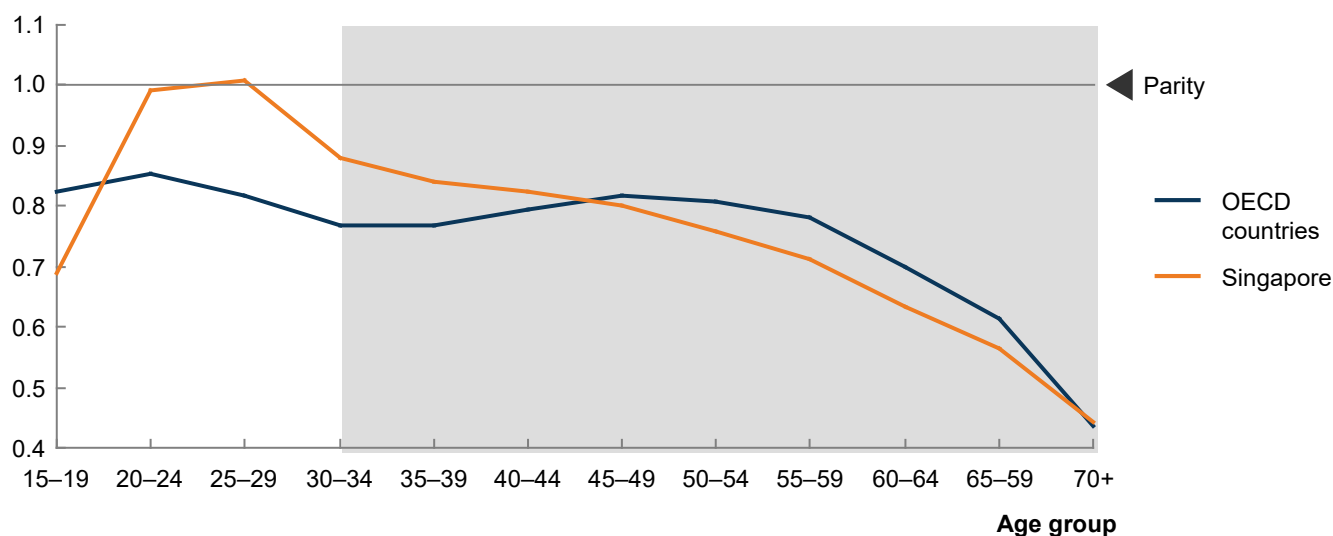
⁷ Ibid. The government has, for instance, proposed a "marriage and parenthood" package to encourage couples to have children, which includes a baby bonus (consisting of cash gifts and co-savings) and tax measures. In addition, the government offers a work-life grant to help families balance family responsibilities and employment.

⁸ The combination of high female labour-force participation and high fertility rates has been noted in Sweden; scholars have attributed it to the role of public policies. From 1999 to 2009, both the United Kingdom and Sweden saw increases in their fertility rates, with evidence suggesting that policy measures such as child or family allowances, arrangements governing labour-market participation of women, and childcare arrangements have had pro-natal effects. See Shirley Hsiao-Li Sun, "Re-producing citizens: Gender, employment, and work-family balance policies in Singapore", *Journal of Workplace Rights*, volume 14, number 3, January 2009.

Exhibit 44

In contrast to other OECD countries, the labour-force participation gender gap in Singapore continues to widen past the age of 30

Labour-force participation by age group
F/M ratio



SOURCE: OECD database; Ministry of Manpower Statistics, 2016; McKinsey Global Institute analysis

At the same time, women in Singapore are more likely to participate in part-time work than men—and not necessarily by choice. In 2016, women accounted for 64.3 percent of part-time workers.⁵²⁰ The drop-off in participation and the high share of women working part time reflect the challenge of balancing family life with employment. Married women, especially those with children, are less likely to participate in the labour force. In 2016, the participation rate for married women was 63.6 percent, compared with men’s 83.8 percent.⁵²¹ Over the past five years, the participation of married women has increased by 2.3 percent, but the participation of married men is still 20.1 percent higher.⁵²² In 2015, the proportion of married women who lived with their children and were economically active (67.7 percent) was seven percentage points lower than for those without children living in the same household (74.7 percent).⁵²³ The gap with men is highest in the 25-to-29 age group at 20.6 percent, dropping to 12 percent in the 30-to-34 age range.

A number of factors appear to be influencing these trends. In the Marriage and Parenthood Survey conducted by the National Population and Talent Division, only 40 percent of women said they would prefer working part time.⁵²⁴ One reason for this view among Singaporean women appears to be that part-time workers still feel obliged to work longer than contracted hours. In one survey of 400 Singaporean women, two-thirds of respondents cited this factor,

⁵²⁰ The involuntary part-time rate rose slightly, from 2.7 percent in 2016 to 3.0 percent in 2017. The share of voluntary part-time employees was 7.6 percent in 2016, the same as in 2015, according to Ministry of Manpower data.

⁵²¹ In comparison, the average labour-force participation rate for women was 60.4 percent, compared with 76.2 percent for men. This is a 16 percentage point difference, compared with the 20 percentage point difference between married men and women. See *Labour force in Singapore*, Singapore Ministry of Manpower, January 2017.

⁵²² *Labour force and the economy: Labour force participation rate of married persons*, Singapore Ministry of Social and Family Development (<https://www.msf.gov.sg/research-and-data/Research-and-Statistics/Pages/Labour-Force-and-the-Economy-Labour-Force-Participation-Rate-of-Married-Persons.aspx>).

⁵²³ Economic activity is defined as those who are working (i.e., employed) as well as those who are unemployed but actively looking for a job and are available for work. See *Family and work*, Insight Series paper number 4, Ministry of Social and Family Development. 2017.

⁵²⁴ *Marriage and Parenthood Survey*, National Population and Talent Division, 2012.

and 68 percent said that they would prefer more flexible hours.⁵²⁵ However, only 47 percent of firms offer full-time flexible arrangements (although this is an improvement over 38 percent in 2011).⁵²⁶

Women's role in childcare is another major factor. In the 2017 Labour Force Survey, 41.7 percent of women outside the workforce cited family responsibilities as the main reason for not working, compared with only 2.7 percent of men. Of the women who identified childcare as their main reason for not working, 38.9 percent were aged 30 to 39 years.⁵²⁷ This may seem surprising given that many women will have school-age children at that point, and therefore could potentially return to work. This appears to reflect a preference among Singaporean mothers to "tiger parent" their children up to the age of 12 when they take the key PSLE examination that determines which secondary school they go to, and the quality of university thereafter.⁵²⁸ However, despite these outcomes, 77 percent of married female respondents in the Marriage and Parenthood Study by the National Population and Talent Division indicated their preference to be employed after having a child.⁵²⁹

Social attitudes play a part, too. In an Association of Women for Action and Research survey, 52 percent of respondents said that women should take care of household chores and caregiving. Breaking those responses down by gender, in the 18-to-29 age bracket, 58 percent of men and 38.2 percent of women agreed with this statement. In the same survey, 57 percent of respondents expressed the view that men are the head of the household and should make most of the decisions in the family—in the 18-to-29 age group, that breaks down to 66 percent of men and 43 percent of women.⁵³⁰ This indicates that social attitudes do not change across age cohorts.

If female participation in Singapore is to rise further, women who want to join the labour force and women who want to work full time will clearly need more support. Flexible work options and childcare outside the home are important. Given low fertility rates and the challenge of an aging population, it is in the interests of the government and companies to be proactive in this regard.

DEVELOPING WOMEN'S SKILLS IS NECESSARY TO IMPROVE THEIR REPRESENTATION IN HIGH-PAYING JOBS AND HIGH-GROWTH SECTORS

Women in Singapore tend to be more present in lower-paying jobs and less present in high-growth sectors (Exhibit 45).⁵³¹

⁵²⁵ *Singapore's female professionals choose work-life balance over wealth*, CFO Innovation, March 6, 2013.

⁵²⁶ Data include only permanent employees and employees on term contract of at least one year in public-sector and private establishments with at least 25 employees. See *Conditions of employment*, Manpower Research and Statistics Department, Ministry of Manpower, 2011-2016.

⁵²⁷ *Family and work*, Insight Series paper number 4, Ministry of Social and Family Development, 2017.

⁵²⁸ Interview with Zoe Kinias, associate professor of organisational behaviour at INSEAD, December 2017.

Note that in Singapore, where the education system is considered competitive and children are expected to perform, this usually means additional demands on parents. See Jean Lee, "Perception of women managers in Singapore: A media analysis", *Asia Pacific Business Review*, volume 11, number 2, June 2005.

⁵²⁹ Marriage and Parenthood Survey, National Population and Talent Division, 2012.

⁵³⁰ *Public attitudes and attitudes towards violence against women*, fact sheet, Association of Women for Action and Research (<http://www.aware.org.sg/information/violence-against-women-in-singapore/>). One 2007 study found that men in Singapore spend 2.4 hours per day looking after their children, but women spend 5.5 hours a day. This includes time spent with children on homework, listening to their problems, play, and grooming. See *Marriage and parenthood study 2007*, cited in *Family first: State of the family report 2009*, National Family Council and Singapore Ministry of Community Development, Youth and Sports (<https://www.msf.gov.sg/research-and-data/Research-and-Statistics/Documents/NFC-StateoftheFamilyReport2009.pdf>).

⁵³¹ Highly skilled foreign workers are more likely to be male, reflecting male dominance in highly skilled work in the workers' home countries and the fact that, in many societies, women are more likely to relocate (giving up their own careers) to follow their husbands. This could help explain the underrepresentation of women in higher occupational and income categories, despite relative equality on educational and employment opportunities for women in Singapore. See Linda Y. C. Lim, "Beyond gender: The impact of age, ethnicity, nationality and economic growth on women in the Singapore economy", *Singapore Economic Review*, June 2015.

Exhibit 45

Women in Singapore tend to be concentrated in lower-growth sectors and lower-paying roles; the opposite is true of men

Employment by role and sector¹
F/M ratio

□ Areas of severe employment disparity

■ <0.50
 ■ 0.50–0.75
 ■ 0.75–0.95
 ■ 0.95–1.05
 ■ 1.05–1.33
 ■ 1.33–2.00
 ■ >2.00

← Higher concentration of males

→ Higher concentration of females

	All sectors ³	Manufacturing	Accommodation and food services	Other service industries ⁴	Business services ⁵	Transportation and storage	Wholesale and retail trade	Construction	Information and communications	Finance and insurance	Number of employees Thousand	Median annual pay \$ thousand	
Managers and administrators	0.60	0.35	0.87	1.14	0.70	0.44	0.56	0.22	0.43	0.74	251	93	High pay
Professionals	0.37	0.26	0.43	0.93	0.53	0.27	0.39	0.16	0.19	0.17	413	62	
Associate professionals and technicians	0.87	0.36	0.67	1.65	0.78	0.39	0.63	0.44	0.48	0.93	455	37	
Working proprietors	0.96	0.45	0.78	1.71	0.94	0.48	1.01	0.57	0.82	1.24	74	32	
Clerical support workers	3.18	3.41	2.45	4.56	3.72	1.63	2.71	4.78	2.65	3.51	241	25	Low pay
Service and sales workers	1.23	1.32	1.30	1.56	0.29	0.90	1.86	0.22	0.64	1.18	268	23	
Craftsmen and related trades workers	0.13	0.26	0.78	0.10	0.08	0.03	0.21	0.02	0.10	0.15	79	19	
Plant and machine operators and assemblers	0.15	0.79	0.28	0.28	0.21	0.03	0.18	0.04	0.09	0.04	152	18	
Cleaners, labourers, and related workers	1.45	1.85	1.81	2.57	1.27	0.44	1.53	0.76	4.00	1.50	161	12	
All occupations²	0.84	0.56	1.30	1.20	0.86	0.32	0.97	0.38	0.63	1.10	2,165	36	
Number of employees Thousand	2,165	138	101	516	335	364	188	85	228	191			
Sector growth Compound annual growth rate, 2011–16, %	3.1	0.6	1.9	2.6	2.6	2.7	3.2	3.4	4.2	8.0			

Low growth

High growth

1 Employed residents aged 15+ are included.

2 All occupations includes agriculture and fisheries workers, and workers not classified elsewhere, which are separate to the categories of occupations shown above.

3 Includes agriculture, fishing, quarrying, utilities, and sewerage and waste management.

4 Other service industries include public administration and education (295,000 employees); health and social services (116,000); arts, entertainment, and recreation (40,000); and other community, social, and personal services (65,000).

5 Business services include real estate services (54,000), professional services (163,000), and administrative and support services (118,000).

NOTE: Exchange rate used of 1 Singapore dollar to \$0.76.

SOURCE: Ministry of Manpower; Singapore Department of Statistics; McKinsey Global Institute analysis

A significant number of women are in the type of low-paid, lower-skilled jobs that are most liable to be displaced by automation. Looking at a range of low-paid occupations, in clerical support, there is a 3.18 female-to-male ratio, in services and sales 1.23, and in cleaning and labouring 1.45. MGI research estimates that 800,000 full-time equivalent jobs could potentially be displaced in Singapore by 2030 due to automation.⁵³² Automation is likely to have a less marked impact on jobs that involve managing people, applying expertise, and social interactions—professional roles that machines cannot so easily replicate—but Singaporean women are relatively underrepresented in these jobs. Women in Singapore are least represented in high-growth sectors.⁵³³ The exception is finance and insurance, where the female-to-male ratio of 1.10 is near parity. In information and communications, a sector that grew at a compound annual rate of 4.2 percent over the past five years, the ratio is 0.63. In transport, which has grown at a compound rate of 3.4 percent over this period, the ratio is 0.32. In construction, the ratio is 0.38.

Upgrading women's skills is one way to protect their employment and income prospects in the future. One feature of women's underrepresentation in high-paying jobs and high-growth sectors is their relative lack of education in STEM fields.⁵³⁴ Although Singapore has attained parity in tertiary enrolment, the female-to-male enrolment ratio in engineering is 0.4, and in information technology 0.43.⁵³⁵ At Nanyang Technological University, for example, female undergraduates made up only 27 percent of the 2015–16 computer science programme, despite accounting for half of all undergraduates in the institution. Similarly, the National University of Singapore has a 50/50 gender split in the student body, but only 32 percent of current undergraduates in its School of Computing are female.⁵³⁶ While undergraduate women recognise the value of digital and technology skills, they often lag behind men in increasing their digital fluency. Only 68 percent have taken a coding or computing course, compared with 83 percent of men. Only 46 percent of female undergraduates say they adopt new technology quickly, compared with 63 percent of men, and only 44 percent say they continue to learn digital skills.⁵³⁷

This bias against STEM subjects is already apparent earlier in school. Between the ages of 15 and 19, 63 percent of students currently study STEM subjects in Singapore, higher than the regional average of 59 percent but behind India's 69 percent and China's 76 percent.⁵³⁸ This reflects the fact that many girls in Singapore are reluctant to study STEM subjects. One survey found that, among girls aged 15 to 19, lack of interest was identified as the top reason for not studying STEM.⁵³⁹ In an interview conducted by Channel News Asia with 21C Girls, a non-profit organisation providing free coding classes to girls, it appeared that some girls have internalised gender biases and stereotypes, and this is stopping them from aspiring to STEM careers.⁵⁴⁰

⁵³² *Jobs lost, jobs gained: Workforce transitions in a time of automation*, McKinsey Global Institute, December 2017.

⁵³³ Measured as compound annual growth over the past five years.

⁵³⁴ Note that unconscious bias in STEM fields may also be a factor (see Chapter 1 for further discussion).

⁵³⁵ Pearl Lim I-Min and Tham Zheng Kang, "Females catching up with males in enrolment at local tertiary institutions", *Statistics Singapore Newsletter*, March 2016.

⁵³⁶ Linette Lim, "Gender imbalance: Are females missing out on Singapore's tech revolution?" Channel News Asia, June 13, 2016.

⁵³⁷ Diana Bersohn, "How CIOs can help close the gender-equity gap", *Computerworld Singapore*, June 9, 2017.

⁵³⁸ *Low confidence limits number of girls pursuing STEM careers in Singapore: Inaugural Mastercard Study*, Mastercard, March 16, 2016.

⁵³⁹ The most commonly cited reasons were "my interests lie elsewhere" (53 percent) and "I am not interested in these subjects" (24 percent). See *Girls in tech: The path of young women to a career in STEM*, Mastercard, January 2018.

⁵⁴⁰ Linette Lim, *Gender imbalance: Are females missing out on Singapore's tech revolution?* Channel News Asia, June 13, 2016.

Addressing skills gaps and attitudes that are preventing girls and women from pursuing the jobs that will be the most insulated from automation and that are higher paid is vital for their economic prospects.

HELPING WOMEN TO BALANCE FAMILY AND WORK AND UPGRADING THEIR SKILLS ARE THE KEYS TO CAPTURING POTENTIAL ECONOMIC BENEFITS

As Singapore seeks to build on progress so far in advancing women's equality, two important potential priorities are helping women to balance family and working life, and upgrading their skills. But there is a third imperative, too—shifting attitudes towards women's roles in society and in the workplace. Without effort on this front, further advances will be hard to achieve.

1. Invest in shifting attitudes about the role of women in society and work

Companies and the government can work together to shift attitudes towards gender roles to give women equality of opportunity and the freedom to choose how they live and work. Evidence from around the world suggests that a combination of information sharing and public-awareness campaigns can be effective.

- **Run public-awareness campaigns to foster recognition and redistribution of unpaid care work:** One way for men to help shift attitudes towards gender roles in society and the workplace is by acting as visible role models. One example in the United States is Facebook CEO Mark Zuckerberg's announcement that he would be taking two months of paternity leave, which received extensive media coverage.⁵⁴¹ The Singapore government could run a public-awareness campaign that emphasises the role of men in the household. Better informing the public about the benefits of female labour-force participation may help facilitate a shift in attitudes, as other successful broad-based media campaigns have done in the country.⁵⁴² One example in Japan is the Ikumen Project, launched in 2010 by the Ministry of Labour and Welfare, which focuses on encouraging men to increase their share of work at home; the high-profile programme has been cited as contributing to increased uptake of paternity leave.⁵⁴³ Moreover, having a public-awareness campaign focused on men can help increase fertility rates and improve the female labour-force participation rate.⁵⁴⁴
- **Create forums of corporate leaders to share best practices on how to move closer to gender equality:** Although women's associations exist in Singapore, more can be done to improve collaboration.⁵⁴⁵ McKinsey research has found that educating male champions to support women at work is powerful.⁵⁴⁶ As discussed in Chapter 1, industry bodies can recognise companies that promote women to senior roles.

⁵⁴¹ "Mark Zuckerberg to take 2-month paternity leave", *Financial Times*, November 21, 2015.

⁵⁴² The MoneySENSE programme launched in 2003 is Singapore's National Financial Education Program. It implemented broad-based media initiatives (through TV, social media, direct marketing, print ads, and radio) with success across different target audiences. See *Delivering financial education in Singapore*, ASIC's Financial Literacy Community of Practice, February 2016.

⁵⁴³ Ikumen project (<https://ikumen-project.mhlw.go.jp/>).

⁵⁴⁴ Couples who share family responsibilities more equally have higher second-birth intensity than others when policies facilitate the combination of employment and parenting for either parent. See more at Livia Sz. Oláh, "Gendering fertility: Second births in Sweden and Hungary", *Population Research and Policy Review*, volume 22, issue 2, April 2003.

⁵⁴⁵ *Gender equality at the forefront of business in Singapore*, International Finance Corporation (http://www.ifc.org/wps/wcm/connect/news_ext_content/ifc_external_corporate_site/news+and+events/news/gender+equality+at+the+forefront+of+business+in+singapore).

⁵⁴⁶ See *Women Matter: An Asian perspective: Harnessing female talent to raise corporate performance*, McKinsey & Company, June 2012; and *Women in leadership: Lessons from Australian companies leading the way*, McKinsey & Company, Workplace Gender Equality Agency, and Business Council of Australia, November 2017. In Australia, the organisation Male Champions of Change brings together CEOs to brainstorm how to bring more women into the talent pipeline, and, as such, is an opportunity for men to play an active role in advocating for gender equality and helping to shape attitudes in the organisations in which they work.

2. Increase access and equal provision of family-friendly policies in the workplace

There are a number of ways to help women balance their family and work commitments more effectively, and companies and government can each play a part. Other countries offer different models that Singapore might consider. In Sweden, the government has led the way through policies to help women balance their home responsibilities and working.⁵⁴⁷ In Australia, WGEA provides the resources and tools for interested companies to create workplace policies and programmes, including providing recognition to companies committed to workplace equality through its “Employer of Choice Programme”. In the United Kingdom and the United States, in contrast, companies and trade unions take the lead on instituting policies and programmes to attract and retain women employees.⁵⁴⁸ Regardless of which model of intervention Singapore chooses, the government and companies can work together to change the work-family equation for women and enforce change through legislation. Here we suggest some priorities:

- **Increase availability of flexitime and teleworking options for full-time workers:** A majority of firms provide at least one ad hoc flexible work arrangement to employees, but only 6 percent offer teleworking, and only 22.8 percent of firms provide flexitime or staggered hours.⁵⁴⁹ Flexible options can increase women’s participation and the hours they work, especially for parents dealing with the pressures of their children’s education and childcare. To take one example, 20 percent of employees have opted for flexitime at NTUC Income Insurance Co-operative Limited, and its employee turnover rate has fallen from 15 percent to 9 percent in seven years while improving employee morale and commitment.⁵⁵⁰
- **Develop programmes to ease the transition for mothers to return to the workplace:** For women who want to return to work after they have had children, there is a perceived “motherhood penalty”. For each year a highly educated mother spends out of the workforce, she faces a penalty of a 4 percent wage reduction on her future earnings, according to one study.⁵⁵¹ Not only do women have to balance family responsibilities with working, but many also feel at a disadvantage compared with their male counterparts in terms of skills and exposure to management. In Singapore, mothers are not guaranteed an equivalent position after maternity leave.⁵⁵² Companies can do more to ease the transition of women back into work. Vodafone globally provides a minimum of 16 weeks of paid maternal leave, followed by six months of flexible arrangements on returning

⁵⁴⁷ In Sweden, family-friendly policies such as childcare allowances and parental leave schemes are funded through public resources. See Leung Lai-ching and Chan Kam-wah, “A family friendly policy for Hong Kong: Lessons from three international experiences”, *International Journal of Sociology and Social Policy*, volume 32, issue 1/2, 2012.

⁵⁴⁸ Leung Lai-ching and Chan Kam-wah, “A family friendly policy for Hong Kong: Lessons from three international experiences”, *International Journal of Sociology and Social Policy*, volume 32, issue 1/2, 2012.

⁵⁴⁹ *Family and work*, Insight Series paper number 4, Ministry of Social and Family Development, 2017. Note the Singapore government’s Work-Life Works programme provides grants to employers to introduce work-life programmes. As of 2012, more than 840 companies had benefited from this scheme. See Joanna Seow, “Parliament: \$43.2m committee for WorkPro grants so far”, *Straits Times*, February 12, 2015.

⁵⁵⁰ *Flexible work arrangements*, Ministry of Manpower and Ministry of Community Development and Sports, 2001. Note that based on firm-level data, resignation rates were lower among firms that offer (1) a large number of formal flexible work arrangements to their employees; (2) have a higher proportion of full-time employees on a five-day work-week; and (3) have a higher proportion of full-time employees with longer annual leave entitlement. See more at *Conditions of Employment 2016*, Ministry of Manpower, November 2016.

⁵⁵¹ *The gender wage gap*, Institute for Fiscal Studies, 2016.

⁵⁵² Karishma Vaswani, *Women in the workplace: The Singapore way*, BBC News, November 19, 2015; and Shirley Hsiao-Li Sun, “Re-producing citizens: Gender, employment, and work-family balance policies in Singapore”, *Journal of Workplace Rights*, volume 14, issue 3, January 2009. However, the government is currently investing in programmes to help women return to work. For example, the *Back2Work with U Programme* launched by the National Trades Union Congress in 2007 focuses on placement and skills acquisition to ease women back into the workforce so they can enjoy greater job and income stability. Approaches include job fairs, recruitment exercises, and offline referrals. As of December 2014, over 26,000 women have been brought back into the workforce as part of this programme.

with reduced work hours. “Returnships” are another increasingly common practice in the United States. Technology companies including GoDaddy and Instacart provide midcareer professionals returning to work after taking time off to care for a child or relative an 18-week paid internship, which helps them readjust to work and gives them networking opportunities.

- **Expand leave options to include family sick leave and elderly-care leave:** In 2016, 92 percent of companies in Singapore offered compassionate leave to their employees, and 73.9 percent extended marriage leave, despite the fact that these are not stipulated in legislation. However, only 19.5 percent of firms offered parental care, sick leave, or both, and only 16.7 percent offered leave for when a child is ill. The share of firms providing such benefits has risen 8 percent since 2008.⁵⁵³ However, the government could mandate such provisions. To date, its focus has been on subsidising childcare centres and providing cash support and reduced employment fees for working mothers who rely on childcare from grandparents or domestic help from overseas.⁵⁵⁴ The government also provides one-off furnishing and equipment grants to employers to outfit childcare centres.
- **Make parental leave policies more gender-balanced:** In 2008, the government increased maternity leave to 16 weeks and put in place one week of paternity leave (with the option of the new father also taking one week of the mother’s leave).⁵⁵⁵ However, this still makes leave provision highly unequal. The World Bank’s view is that maternity leave policies without similar paternity leave policies reinforce gender differences in child-rearing responsibilities and create differential hiring costs by gender, which helps to entrench a situation in which women take on the lion’s share of caregiving.⁵⁵⁶ Singapore could consider mandating something similar to Sweden’s approach, giving parents the freedom to choose how to allocate a combined 480 days of parental leave. Moreover, companies can take the lead by providing equal parental leave to men and women. Aviva, the insurance company, has paved the way by providing 16 weeks of parental leave for both male and female employees.⁵⁵⁷

3. Increase economic incentives for women to remain in the workplace

One way to encourage women to remain in the workplace is to ensure that they receive equal pay for equal work. Equal pay has an impact on social attitudes, influences the division of labour within the household, and can help raise the overall value of women remaining in the workforce.⁵⁵⁸ One International Monetary Fund (IMF) study found a correlation between labour-force participation rates and the legal rights of women that is significant even when accounting for levels of education and fertility.⁵⁵⁹

- **Audit employee pay to identify gender wage gaps in similar roles and create programmes to close them:** Although there is currently no legislation on equal pay for equal work, companies can take the initiative, identify gender wage gaps, and act on them. UN Women estimates that men in Singapore earn 18 percent more than women,

⁵⁵³ *Family and work*, Insight Series paper number 4, Ministry of Social and Family Development. 2017.

⁵⁵⁴ *Do pro-fertility policies in Singapore offer a model for other low-fertility countries in Asia?* UN Population Division policy brief number 15, November 2015.

⁵⁵⁵ Ministry of Social and Family Development (<https://www.profamilyleave.gov.sg/Pages/About.aspx>).

⁵⁵⁶ Andrew D. Mason et al., *Toward gender equality in East Asia and the Pacific: A companion to the World Development Report*, World Bank, 2012.

⁵⁵⁷ Nicolas Middlemiss, “Aviva to offer equal parental leave in Singapore”, *Human Resources Director Asia*, December 2017.

⁵⁵⁸ Andrew D. Mason et al., *Toward gender equality in East Asia and the Pacific: A companion to the World Development Report*, World Bank, 2012.

⁵⁵⁹ Olivier Thévenon et al., *Effects of reducing gender gaps in education and labour force participation on economic growth in the OECD*, OECD Social, Employment and Migration Working Papers, OECD, December 10, 2012.

and there has been no improvement over the past ten years.⁵⁶⁰ Companies in Singapore could follow the example set by Cisco, for instance, which conducts an annual audit of gender wage gaps and adjusts employees' salaries to erase them. This builds on the work of the UN Women Singapore Committee, which launched the #stoptherobbery campaign that raises awareness of the gender pay gap in the country.⁵⁶¹

- **Create an equal remuneration clause for men and women to hold corporations accountable:** As we have noted, Singapore has no legislation prohibiting gender-based wage discrimination, although there are guidelines enacted by the Tripartite Alliance for Fair and Progressive Employment Practices set up in 2006 to protect both men and women of all ages, races, and religions.⁵⁶² Legislation could require companies with more than 50 workers to conduct analysis of gender pay gaps and produce action plans to address them, as Belgium does. In the United Kingdom, companies with more than 250 employees are required to disclose average pay for men and women, including any bonuses. Alternatively, Singapore could implement a model similar to the United States' Equal Pay Pledge, which challenges businesses to publicly vow to conduct an annual company-wide gender pay analysis across occupations.⁵⁶³

4. Encourage higher participation of women in STEM fields

NGOs are already active in developing skills among girls and women, with a focus on STEM, but companies can do more, too. Government also has a role to play in developing women's skills and in opening up access to digital technologies on which so many higher-paid jobs depend in the modern economy.

- **Develop programmes to inspire girls and young women to pursue STEM careers:** In Singapore, one of the major deterrents to girls' pursuit of STEM fields is their lack of interest. In response, non-profit organisations such as 21C Girls have started to provide free coding classes for girls.⁵⁶⁴ The UN's Girlstopioneer programme provides girls with exposure to research environments through field trips and internships to encourage them to pursue scientific careers.⁵⁶⁵

Companies can weigh in more to support these efforts, and achieve more gender diversity in their talent pipelines. Some companies are already doing so. Mastercard in Singapore, for instance, provides an education programme to teach the foundations of STEM principles to young girls.⁵⁶⁶ Company-run media campaigns can also be effective in helping to inspire young girls to pursue STEM careers. One such is the #inspirehermind campaign from Verizon designed to combat the gender bias associated with STEM fields. Singaporean companies could follow the same approach, tailored to the local context.

Singapore outperforms the rest of the world on STEM, according to the OECD's latest PISA study.⁵⁶⁷ Its citizens also score among the highest in the world in both mathematics and science in the Trends in International Mathematics and Science Study. However, there is still scope to pique young girls' interest in STEM. Currently, STEM education

⁵⁶⁰ *Equal pay*, UN Women Singapore Committee (<https://www.unwomen.org.sg/causes/stoptherobbery/>).

⁵⁶¹ *Ibid.*

⁵⁶² *Reporting status for Singapore*, UN Office of the High Commissioner for Human Rights (http://tbinternet.ohchr.org/_layouts/TreatyBodyExternal/Countries.aspx?CountryCode=SGP&Lang=EN).

⁵⁶³ Natalia Merluzzi, *These businesses are taking the equal pay pledge*, White House blog, June 14, 2016.

⁵⁶⁴ 21C Girls (<http://www.21cgirls.com/>).

⁵⁶⁵ Lakshmi Ramachandran, *Small steps to big changes towards gender equality in science*, National University of Singapore, May 2017.

⁵⁶⁶ *Inspiring girls in STEM: Mastercard's Girls4Tech program to reach more than 13,000 girls in Singapore by 2018*, Mastercard press release, October 11, 2017.

⁵⁶⁷ *Singapore tops latest OECD PISA global education survey*, OECD, December 6, 2016. Note that the PISA survey evaluates the quality, equity, and efficiency of school systems.

begins in pre-school with specific activities focused on science and mathematics. The government provides mentoring programmes. For example, the Agency for Science, Technology, and Research (A*STAR) under the Ministry of Education is collaborating with Science Centre Singapore on a pilot to provide students with mentored research opportunities, and to develop teacher-researchers and teacher-mentors to enhance STEM education.⁵⁶⁸

Nevertheless, more can be done to increase the number of young girls in STEM fields by both the government and companies. They can, for instance, target girls at the age when they are deciding whether to pursue STEM fields. In Asia Pacific, 50 percent of 15- to 19-year-olds considered studying STEM-related subjects when they were younger, but 51 percent of them changed their minds between the ages of 15 and 16.⁵⁶⁹ Such age-based targeting can be achieved by, for instance, having female role models speak in classes of this age group, or by conducting field trips and internships in STEM companies to help pique students' interest and combat the belief that STEM fields tend to be male-dominated.

It is also important to explore reasons why young girls are not interested in STEM fields, and influence them accordingly. More can be done to analyse the reasons behind the lack of interest and identify what are the best channels to influence young girls. The same can be done as well to analyse why some specific areas of STEM have had greater success than others at attracting and retaining women. From there, it will be easier to target measures to build a stronger female STEM pipeline.

- **Review university policies to encourage women to participate in STEM fields:** Although women are more represented at the tertiary level relative to men, they are less likely to take coding or digital courses. Universities could review their policies to determine barriers to women's participation in STEM fields. At Harvey Mudd College in California, the computer science department redesigned its introductory class and divided students into separate sections by experience, removing any factor that might intimidate women.⁵⁷⁰
- **Adjust policies to reduce barriers keeping women from applying for jobs in STEM:** In addition to measures designed to inspire young girls to consider studying STEM, companies can also shift internal policies to help women pursue STEM careers, even without STEM backgrounds. For instance, Uber in Southeast Asia changed its job requirements to reflect transferrable skills rather than industry-specific experience, a move that helped increase the number of female general managers.⁵⁷¹ STEM graduates are likely to pursue STEM-related careers, but both STEM and non-STEM backgrounds are seen as viable entry points for a STEM career.⁵⁷² Companies and the government can do more to equip women with skills for the future workplace and encourage their participation in high-growth sectors and high-paying roles.

⁵⁶⁸ *Securing Australia's future: STEM: Country comparisons*, Australian Council of Learned Academies, January 2013. At the primary level, mathematics and science are core subjects with specialist trained teachers taught since Grade 1. At the secondary level, mathematics and science are also core subjects, with the weekly number of teaching periods varying depending on the type of secondary school a student attends.

⁵⁶⁹ Note that for Singapore, the average age when girls change their minds is 14–16 years old. However, this relies on a small sample size of 12. See *Girls in tech: The path of young women to a career in STEM*, Mastercard, January 2018.

⁵⁷⁰ Kimberly Weisul, *Half of this college's STEM graduates are women. Here's what it did differently*, Inc.com, May 31, 2017.

⁵⁷¹ Interview with Lean In Singapore, February 7, 2018.

⁵⁷² *Girls in tech: The path of young women to a career in STEM*, Mastercard, January 2018.

5. Promote skills development for women working in lower-growth sectors and/or lower-paying roles

Although the government has already implemented a range of measures to help develop the skills of the labour force, companies can also play a role in effecting change for women, helping them to attain greater representation in high-paying roles and in high-growth sectors.

- **Create incentives to participate in SkillsFuture for women in need of reskilling or skills development:** SkillsFuture is a national movement to provide citizens with opportunities and resources to develop the skills they need as Singapore continues into the next phase of its development as an advanced economy. In 2016, around 134,000 women took part in SkillsFuture, and efforts are under way to increase participation through multiple media campaigns. During a 2017 debate in parliament, education minister Ong Ye Kung said that the government was planning a national drive called SkillsFuture Engage that will include a plan to reach out to women returning to work.⁵⁷³ Companies can do more to encourage employees to use SkillsFuture by providing financial or non-financial incentives for them to participate. Many Singaporean firms, including Singtel and SIA Engineering Company, have started sending staff to SkillsFuture's Digital Workplace programme, launched in October 2017. Yet more can be done to encourage employees to use their SkillsFuture credit to help them prepare for the needs of the future workplace, including nudging them to take STEM or digital skills courses to prepare them to transition to other jobs if necessary as automation spreads.
- **Help provide digital access to women without mobile phones or the internet:** Given the risk of low-skilled jobs being displaced by automation, the government has expanded skills training over the past few years. In particular, the Singaporean government has made a major push to equip workers with basic digital skills with its SkillsFuture Digital Workplace programme. However, contrary to popular belief, evidence shows that lack of digital access is still an issue, even though many community centres provide internet access. Among adults (aged 25 to 74), 91.6 percent of males and 88.7 percent of females use a cellular phone, compared with 96.6 percent of men and 95.6 percent of women in Sweden, 93.0 and 93.6, respectively, in the United Kingdom, and 90.8 percent for both men and women in Japan.⁵⁷⁴ On internet use, 80.1 percent of adult males and 77.7 percent of adult females in Singapore use the internet, compared with 93.3 percent of men and 93.7 percent of women in Sweden, 94.2 and 93.4 percent, respectively, in the United Kingdom, and 97.3 percent of men and 96.4 percent of women in Japan.⁵⁷⁵ Providing access to the internet and mobile phones is a necessary first step for the government to address, and companies can support this effort. Intel, for example, has developed an online peer network as part of its "She will connect" programme globally, which Singapore might look at and emulate.

⁵⁷³ Charissa Yong, "MPs suggest ways to level playing field for women", *Straits Times*, April 4, 2017.

⁵⁷⁴ ITU World Telecommunication/ICT indicators database 2017.

⁵⁷⁵ *Ibid.*



Singapore has made significant strides in support of women's equality in recent years, from raising girls' educational attainment to policies that help women to balance their family and work commitments. However, barriers remain to women working, working full time, and working in sectors where they can earn higher pay and improve their economic prospects. As demographic change threatens to put more pressure on women's family responsibilities and as automation displaces low-skill jobs, the government and companies can pursue a rich agenda of action to make further progress towards gender parity in Singapore.



APPENDIX

This appendix has the following sections:

1. Building a supply-side GDP model
2. Methodology for assessing global gender inequality
3. Methodology for calculating Gender Parity Score (GPS)

1. BUILDING A SUPPLY-SIDE GDP MODEL

For its original 2015 global report on the power of parity, MGI built a supply-side GDP model. We briefly describe that methodology below. For this report on Asia Pacific, we have relied on that model to calculate the economic opportunity that is available from advancing further towards parity in the region. We have tested the assumptions in the original model to confirm that there have been no major deviations over the two years since the publication of that report in the forecast trajectory of our business-as-usual scenario. We have also updated the model using the latest available data from the same sources used in the original report.

MGI's supply-side model estimates the economic impact of closing the gender gap in labour markets in 95 countries. The countries cover 93 percent of the world's female population and 97 percent of its GDP. In all countries, the model estimates the GDP contribution of women and men in the period to 2025. The model calculates GDP using five inputs, each of which is estimated by gender:

$$\text{GDP} = \text{Working-age population} \times \text{Labour-force participation rate} \\ \times \text{Employment rate} \times \text{Full-time equivalent rate} \\ \times \text{Labour productivity per full-time equivalent employed}$$

The employment rate is the percentage of the labour force that is employed. The full-time equivalent rate is the ratio of full-time equivalent employees relative to total employees. Labour productivity per full-time equivalent employed is the economic output of each full-time equivalent employee.

Overall approach

- **Drivers of the difference in male and female GDP:** The model captures differences in male and female contributions to GDP due to three main factors: participation rates, hours worked, and distribution of employment among 14 sectors of the economy. We assumed that the labour productivity of men and women is the same within each of the 14 sectors studied—that is, there is no impact on productivity due to the different roles men and women play in companies, the size of firms that employ men and women, variation in agricultural productivity due to the size of male vs. female farm holdings, and so on. Any difference in the productivity of men and women is therefore driven by different representation in the 14 sectors, each of which has different productivity levels. The 14 sectors are agriculture and fishing; mining and quarrying; manufacturing; construction; utilities; wholesale and retail trade; hotels and restaurants; transport, storage, and communications; financial intermediation; real estate, renting, and business

activities; public administration and defence; education; health and social work; and other services.

- **Second-order impact on GDP:** We do not include any second-order impact from increased participation by women, including increased consumption by women, or any drag on productivity due to changes in the supply of labour relative to capital. Our analysis also does not take into account other economic benefits from bridging gender gaps (for example, the intergenerational benefits that may arise from better-educated and healthier women raising families).
- **Supply-side analysis:** Our approach models the labour supply to help establish a GDP aspiration from increased participation by women. We do not take into account demand-side factors that could influence the ability to create jobs to absorb additional female workers. We fully acknowledge that achieving this potential will require investment in job creation as well as skills development, addressing barriers from unpaid work, and so on.

Summary of approach and data sources

- **Labour force:** To estimate the total labour force for each country, we calculate its working-age population and labour-force participation rate separately for six cohorts comprising the two genders and three age cohorts: 15 to 24 years, 25 to 54 years, and 55 and over. The working-age population for all scenarios is sourced from the UN's World Population Prospects for all 95 countries. The historical labour-force participation rate is sourced from the ILO.
- **Full-time equivalent employment:** We first apply an overall employment rate to each country's aggregate labour supply. The employment rate for historical periods is sourced from the ILO, available for all 95 countries. The ILO provides historical data split by gender. To convert employment by gender into full-time equivalents, we use ILO data on average hours worked by gender. In countries where data are not available, we extrapolate from the most similar countries available. We determine similarity by using regional groupings and level of per capita GDP at purchasing power parity. We were able to gather actual data or estimate hours worked for 53 countries in our 95-country sample, and we extrapolated this to the remaining countries. We assume the hours worked by men and women per week do not vary by sector.
- **Labour productivity:** For each country, we estimate labour productivity per full-time equivalent employee for men and women as average sector productivity, weighted by the sector share of full-time equivalent employment for each gender. We assume that the productivity of men and women in the same subsector (for example, education, health, and agriculture) is the same, and that any variations in average productivity among men and women are due to the sector mix of their employment. We use a three-step calculation:
 - First, we estimate the productivity of men and women in 14 subsectors. For example, in most countries, services productivity for women is lower than that of men because women are disproportionately concentrated in low-productivity sectors (as measured by GDP per worker) such as education and health services. Due to data limitations, we calculated relative productivity at the 14-sector level for 25 countries, and then extrapolated to the full sample. We then extrapolated these data to other countries based on our regional groupings and level of per capita GDP at purchasing power parity. For these 25 countries, we sourced data on employment by gender from the ILO and national statistics bureaus at the 14-sector level. We took productivity data for the 14 sectors from the World Input-Output Database, the McKinsey Global Growth Model, and national statistics offices. We aggregate the 14 subsectors to

arrive at relative productivity between men and women for three sectors: agriculture, industry, and services.

- Second, we use relative productivity for these three subsectors to arrive at a productivity level in each for men and women. We calculate average productivity for both men and women together using GDP from IHS's World Industry Service, employment data from the ILO in each of agriculture, industry, and services, and the hours worked estimates described above to convert employment numbers to full-time equivalent employee numbers. We then applied the relative productivity of men compared with women calculated in the first step to this average productivity to estimate a male and a female productivity level for each of agriculture, industry, and services.
- Finally, we estimate overall productivity by gender by weighting gender-specific productivity for agriculture, industry, and services by the respective shares of employment of men and of women in these sectors.

For a more detailed description of the inputs to our model and data sources, see MGI's 2015 global report.

Forecast assumptions

In its original 2015 global research, MGI modelled three scenarios to project the economic opportunity that is available from bridging the gender gap in 2025. The first scenario is a business-as-usual projection of GDP based on consensus forecasts, supplemented with historical trends to obtain gender-disaggregated forecasts. The second is a best-in-region scenario that describes the GDP opportunity for each country if it were to bridge the gender gap at the best historical rate of countries in its region. The third is a full-potential scenario that sizes the total opportunity of closing gender gaps in the labour-force participation rate, employment rate, hours worked, and sector mix. In this report on Asia Pacific, we have focused on the GDP opportunity from the best-in-region scenario. While gender parity is a worthy aspiration, the complex and multifaceted issues that affect women's participation in work mean that this is likely a challenging goal to achieve by 2025. Equally, participating in the workforce is a matter of personal choice. We therefore focused on the best-in-region scenario, which considers the degree of progress that countries have actually achieved in the past decade to establish an aspiration for progress towards parity.

For all projections, we use the following data sources: for population, we use the UN's World Population Prospects; for total labour-force participation, GDP growth, labour-force participation rate, and employment rate, we use Oxford Economics and IHS, both of which provide aggregate country forecasts (not gender-disaggregated) for these variables.

Business-as-usual scenario

We formulated the business-as-usual scenario in three steps. First, we projected detailed data on labour supply broken down by gender according to growth rates over the past ten years, scaling them so that they were in line with consensus forecasts and ensuring that they followed a few overall constraints. In detail:

- We first forecast the labour-force participation rate by age group and gender based on its compound annual growth rate between 2003 and 2013. We then scaled the forecast so that the participation rate was consistent with predictions from Oxford Economics. Finally, we applied three constraints: the participation rate does not exceed 100 percent for any cohort; for each age cohort, the rate of female participation does not exceed the male rate; and the participation rate of those aged 55 and over for each country remains equal to or less than that of those aged 25 to 54 for that country.

- For the employment rate, we used the overall employment rate forecast from Oxford Economics, but scaled to separate male and female employment rates, based on the observed historical ratio of female-to-male employment rates in 2013.
- The ratio of hours worked and the relative productivity of full-time equivalent males and females in industry and services remained constant over the business-as-usual forecast. This assumption is based on an analysis of historical data, which show little or no change for most countries in our sample over the past ten years.
- Forecasts for the distribution of employment by sector and gender were based on historical trends and reasonable assumptions for productivity growth. First, we forecast the share of employment by sector based on historical trends from the most recent ten-year period with data. We then modified the projection to bring GDP growth for agriculture, industry, and services in accordance with forecasts from IHS and bring average sector productivity in line with three overall constraints we apply: forecast productivity growth from 2014 to 2025 is greater than or equal to zero; the productivity ranking of agriculture (which typically has the most volatile productivity-growth rates) does not change relative to other sectors; and the difference between sector productivity growth and overall productivity growth should not be more than 2 percent from any historical gap for agriculture, industry, and services. We chose the 2 percent differential based on typical historical trends for these two measures.

Best-in-region scenario

The best-in-region scenario sizes the GDP opportunity for each country if it were to bridge the gender gap at the best historical rate of countries in its region on three dimensions of gender equality in work: labour-force participation rate, hours worked, and sector productivity. This is calculated for each input as the difference between the female and male growth rate over the past ten years. The scenario assumes that, for each country and each input, the male growth rate is constant at the business-as-usual levels, but the female growth rate is equal to the male growth rate plus the best-in-region rate of convergence. The only exception to this rule is the employment rate. Because the difference in the employment rate by gender is small for most countries, we assume that this gap is fully bridged in the best-in-region scenario.

The convergence rate is capped for each country so that female GDP input does not overtake male GDP input in 2025. Specifically:

- In the case of the labour-force participation rate, data coverage was sufficient to identify the best rate of convergence in most of the ten regions described in MGI's 2015 global report. India was merged with South Asia, China was merged with East and Southeast Asia, and North America and Oceania were merged with Western Europe in order to identify the best-performing country in each region. Other regions included the Middle East and North Africa, sub-Saharan Africa, Eastern Europe and Central Asia, and Latin America. This was calculated for each of the three age cohorts.
- Due to limited data availability, we assume that the rate of convergence for hours worked was the same in all countries. Norway was identified as the best performer in a sample of 30 countries, most of which are developed economies.
- For sector productivity, we follow two steps:
 - First, we assume progress towards parity on the share of agricultural employment between men and women. For the share of employment in agriculture, data coverage was good enough to identify the best rate of convergence in each region. The regional groupings used were similar to those described above.

- Second, we assume convergence in productivity in each of industry and services. We calculate the rate of convergence for industry and services productivity for OECD and non-OECD countries separately, due to limited data availability. This is calculated based purely on the change in distribution of employment of men and women in the 14 sectors examined, and not due to the change of underlying productivity of each of these sectors (that is independently factored into productivity forecasts). For example, for industry, the United Kingdom is the best-in-region country chosen for OECD economies.

2. METHODOLOGY FOR ASSESSING GLOBAL GENDER INEQUALITY

For its original 2015 global report on the power of parity, MGI established 15 indicators by which to measure gender equality; we rely on the same approach for this report and briefly describe it below.⁵⁷⁶

Our aim was to map gender equality as comprehensively as possible but also to ensure that the indicators we used were not so numerous as to be unwieldy for analytical purposes. In order to select a manageable set of indicators, we reviewed a range of global charters and statements of principle. We also explored indicators used by other well-established indices to measure gender equality, including the World Economic Forum’s Global Gender Gap Index, the OECD’s Social Institutions and Gender Index, the European Union’s Gender Equality Index, and the UN’s Gender Inequality Index. Lastly, we conducted principal component and factor analyses to identify natural groupings of variables. This revealed four critical dimensions of gender equality: gender equality in work, essential services and enablers of economic opportunity, legal protection and political voice, and physical security and autonomy. We call the last three aspects “gender equality in society” (see Exhibit A1 for a list of the indicators we selected, data sources, country coverage, and other information).

The indicators used are measures of outcomes. This enables us to make an objective assessment of a country’s performance on gender equality.⁵⁷⁷ We would have liked to include other indicators but were unable to do so because insufficient data were available from a large set of countries for measures such as property ownership by women vs. men, political representation at local government levels, and enforcement of legal provisions.

The indicators we chose typically measure the difference between the position of men and women, and these are expressed as a ratio of female-to-male data. The exceptions are sex ratio at birth and unpaid care work, which are expressed as male-to-female ratios.

⁵⁷⁶ For more detail on our original methodology, see the appendix of *The power of parity: How advancing women’s equality can add \$12 trillion to global growth*, McKinsey Global Institute, September 2015.

⁵⁷⁷ Researchers have debated whether gender equality should be measured as equality of opportunity or equality of outcomes. Those arguing for the former believe that assessing gender on the basis of equality of opportunity allows the distinguishing of factors outside an individual’s control as opposed to those dictated by personal preferences or choice. The latter group, arguing for assessing gender equality based on equality of outcomes, contends that differences in preferences and attitudes are not inherent but reflect the internalisation of social norms that unequally distribute power and resources—although arguably true equality of opportunity would imply lack of discrimination in social norms, and therefore differences in outcomes would in fact be shaped purely by freedom of personal choice. See, for example, *World Development Report 2012: Gender equality and development*, World Bank, September 2011; and Allison J. Booth and Patrick J. Nolen, *Choosing to compete: How different are girls and boys?* IZA discussion paper number 4027, February 2009. In our analysis of gender equality, we have tried to consider both aspects, using several objective measures of gender equality outcomes to identify gaps and priority areas of focus, but also, in parallel, seeking to understand underlying attitudes and behaviour related to gender that could impede the ability of women to exercise choice and take advantage of their opportunities. Unfortunately, globally comparable data on attitudes are scarcer than those on gender equality outcomes. For this reason, we did not incorporate these aspects into our assessment of the current state of gender inequality, but instead used available data to draw inferences about potential root causes and solutions.

Exhibit A1

Summary of gender equality indicators and data

Indicator	Definition	Source
Labour-force participation rate	Female-to-male ratio; age 15+ labour-force participation rate	ILOSTAT, ILO modelled estimates (July 2015), 15+
Professional and technical jobs	Female-to-male ratio; representation (number) in professional and technical jobs (professionals, technicians, and associate professionals)	ILOSTAT, Employment by Occupation and Sex, November 2017
Perceived wage gap	Female-to-male ratio; wages for similar work, based on survey responses on equal pay for equal work ranked on a 7-point scale	World Economic Forum, Global Gender Parity Reports, 2011, 2014, and 2016
Leadership positions	Female-to-male ratio; representation (number) in leadership position (legislation, senior officials, and managers)	ILOSTAT, Employment by Occupation and Sex, November 2017
Unpaid care work	Male-to-female ratio; time spent in unpaid care work	OECD Database (only latest year available), November 2017
Family planning	Female only; percent of married or in-union women aged 15–49 who want to stop or delay childbearing but are not using contraception	UN Department of Economic and Social Affairs, Population Division, Estimates and Projections of Family Planning Indicators 2017
Maternal mortality	Female only; maternal deaths per 100,000 live births in a specified year ¹	WHO, Global Health Observatory Data, November 2017
Education level	Female-to-male ratio; composite indicator of adult literacy rate, net secondary enrolment rate, and gross tertiary enrolment rate	UNESCO Institute for Statistics, November 2017
Financial inclusion	Female-to-male ratio; composite indicator of rate of account holders at a financial institution, borrowing from a financial institution in the previous 12 months, and use of mobile phones to send money	World Bank's Global Findex database, 2014
Digital inclusion summary	Female-to-male ratio; composite indicator of rate of internet and mobile users ²	ITU 2017 Database
Legal protection	Female only; composite index of the extent of protection to women by 11 different legal provisions (e.g., right to inherit, access to jobs)	World Bank, Women, Business and the Law Database (2010–16), November 2017
Political representation	Female-to-male ratio; composite indicator of representation (number) in parliamentary and ministerial positions ³	Inter-Parliamentary Union, Women in Politics Database, February 2018
Sex ratio at birth	Male-to-female ratio; number of male births to number of female births	UNDP Department of Economic and Social Affairs World Population Prospects, 2012 Revision
Child marriage	Female only; percent of girls and young women aged 15–19 who are married	United Nations World Marriage Data 2015
Violence against women	Female only; percent of women who have experienced physical and/or sexual violence from an intimate partner at some time in their lives ⁴	OECD Gender, Institutions and Development database 2014, WHO

1 Includes female deaths from any cause related to or aggravated by pregnancy or its management (excluding accidental or incidental causes) during pregnancy and childbirth or within 42 days of termination of pregnancy, irrespective of the duration and site of the pregnancy, per 100,000 live births, for a specified year.

2 Indicator of mobile phone employed to send money was used in the composite calculation only when rates for males were more than 5%.

3 Parliamentary seats refer to those in a single or lower chamber.

4 Based on data from Demographic and Health Surveys, WHO, International Violence Against Women Survey, and European Union Agency for Fundamental Rights.

SOURCE: McKinsey Global Institute analysis

For indicators that apply only to females—child marriage, violence against women, family planning, and maternal mortality—we used the absolute level expressed as a prevalence rate in percentage terms. We collated data for these indicators for our set of 95 countries from global sources such as the ILO and the OECD.

For many of the indicators, we remained consistent with standard definitions used in the literature. For instance, we chose the ILO’s major groupings of occupational classifications for our definitions of professional and technical jobs and leadership positions; this aligned with the World Economic Forum’s approach for these two indicators as well. Some features of the indicators are worth highlighting:

- Five of the 15 indicators are composites constructed using subgroup indicators. They are education, financial inclusion, digital inclusion, political representation, and legal protection. The rationale for constructing these composite indicators was to include multiple aspects of inequality in each case. In the case of digital inclusion, for instance, we included female-to-male ratios for both mobile and internet use. The methodology we used to construct composite indicators was the same methodology we used to construct countries’ Gender Parity Scores (see next section of this appendix).
- Our wage gap indicator is based on data from the World Economic Forum’s Executive Opinion Survey. Although it is based on opinion, we still took the view that this survey was the best available measure of equal pay for equal work. Some researchers have attempted to calculate differences in equal pay for equal work using real wage data (for example, as a residual after accounting for differences in occupational or industrial concentrations of men and women). However, such analysis is available for only a handful of countries.⁵⁷⁸
- The indicator we chose for leadership is based on the ILO’s major occupational group classifications, as mentioned. The indicator includes legislators, senior officials, and managers. Despite the fact that there is some overlap in the case of legislators with our measure of political representation, we opted for our approach because it used the ILO’s standard classification and is in line with the indicator used by the World Economic Forum in its Global Gender Gap report. In any case, it is difficult to obtain more detailed occupational splits of this ILO major group. We used the major group of professional and technical jobs for similar reasons.
- The legal indicator comprises 11 underlying indicators constructed from the answers to the following questions in the World Bank’s Women, Business and the Law database:
 - Is there legislation that specifically addresses domestic violence?
 - Is there legislation that specifically addresses sexual harassment?
 - Can a married woman apply for a national ID card in the same way as a man?
 - Does a woman’s testimony carry the same evidentiary weight in court as a man’s?
 - If there is a non-discrimination clause in the constitution, does it explicitly mention gender?
 - Do sons and daughters have equal inheritance rights to property?
 - Are there laws mandating non-discrimination based on gender in hiring?

⁵⁷⁸ See, for example, Francine D. Blau and Lawrence M. Kahn, “The gender pay gap”, *The Economists’ Voice*, volume 4, issue 4, June 2007.

- Does the law mandate equal remuneration for men and women for work of equal value?
- Can non-pregnant and non-nursing women do the same jobs as men?
- Does the law mandate paid or unpaid parental leave?
- Does the law mandate paid or unpaid paternity leave?

We first grouped the 11 indicators into four logical categories (for example, the first two questions, regarding violence against women, into a single category) by taking a simple average. We then used a sum of squares approach described in the next section. In the case of Australia, reflecting an issue with the legal protection index score, we made a manual adjustment to the World Bank’s scoring to reflect an oversight that is due to be revised in the Women, Business and the Law data release in 2018.

- The indicator we used for child marriage is the share of girls between 15 and 19 who are married. An alternative, and perhaps more commonly used, indicator of child marriage is the percentage of women aged 20 to 24 years who were first married before the age of 15 or the age of 18. However, we found that the latter data did not exist for our full sample of 95 countries; in particular, there were large gaps in data in developed countries. The measure we used has also been proposed as one of the core measures of child marriage by UNICEF.

To establish “low”, “medium”, “high”, and “extremely high” levels of inequality, we chose to use an absolute measure of equality levels across indicators, rather than relative thresholds for each indicator, to ensure an objective assessment of equality. These thresholds were chosen by examining the education indicator, which we believe is a core gender equality indicator and one where significant progress has been made. We found that there were virtually no countries with gender gaps greater than 50 percent for this indicator, about 15 percent of countries had gaps greater than 25 percent, and about 50 percent of countries had gaps less than 5 percent.

For a few indicators, the thresholds used differed from these, given the different distribution of data for this indicator. For physical security and autonomy indicators, where we felt the severity of the indicators warranted different thresholds, we defined extremely high inequality as greater than or equal to 33 percent distance from no prevalence (of child marriage or violence against women), or one in three women affected. For maternal mortality, the thresholds were informed by the relative distribution of maternal mortality ratios across countries. For example, we used a cut-off of ten deaths per 100,000 live births for “low” equality, based on maternal mortality ratios typically seen in highly developed nations such as the Scandinavian countries. Similarly, we used a threshold of 200 deaths per 100,000 live births for “extremely high” inequality, as it represented a natural break in the relative performance of countries. For sex ratio at birth, a review of literature on this topic found that the natural male-to-female ratio at birth is typically in the neighbourhood of 1.06.⁵⁷⁹ However, data for 2005 to 2010 from the UN typically had values significantly above this number. We therefore set our threshold between “extremely high” and “low” equality at 1.09, which was slightly above the world average of 1.084 and above which we saw significantly higher values for a few countries (including India and China).

⁵⁷⁹ Stephan Klasen and Claudia Wink, “Missing women: Revisiting the debate”, *Feminist Economics*, volume 9, issue 2–3, 2003.

Regional numbers for gender equality indicators typically represent weighted averages, based on 2016 female population data available from the UN. Per capita GDP is based on data from the IMF and represents values in 2014 international dollars adjusted for purchasing power parity.

3. METHODOLOGY FOR CALCULATING GENDER PARITY SCORE (GPS)

In MGI's global 2015 report, we calculated how close women are to gender parity on each of four aspects of gender inequality made up of 15 indicators of gender equality in work and in society for 95 countries. We then combined average gender parity levels into aggregated Gender Parity Scores on gender equality in work, gender equality in essential services and enablers of economic opportunity, gender equality in legal protection and political voice, and gender equality in physical security and autonomy. To aggregate country scores into regional scores, we weighted our results based on the size of the female population in each country in the region. We weighted the relevant indicators for each category equally, and we aggregated all gaps rather than compensating underperformance on some by outperformance on others.

In this report, we refreshed the 15 gender equality indicators based on the most recently available data, and therefore scores may differ slightly from those in the 2015 research.

To calculate overall GPS, we combined the country's position on our 15 gender indicators using the sum of squares method and assuming equal weight to each indicator as:

$$\text{GPS} = 1 - \sqrt{\frac{(1 - a_1)^2 + (1 - a_2)^2 + \dots + (1 - a_n)^2}{n}}$$

where a_1 = F/M ratio in gender equality indicator 1, a_2 = F/M ratio in gender equality indicator 2, etc.

For family planning, violence against women, and child marriage, where indicators are expressed as prevalence rates in percentage terms, the inverse—that is, one minus the prevalence rate—is used instead of female-to-male ratios. For the maternal mortality ratio, we normalised country ratios using minimum and maximum values. All indicators were capped at a maximum value of 1. The GPS for individual category scores (for example, for physical security and autonomy) is constructed using the same approach, but including only the indicators relevant to the category.

In some instances, where there were extensive gaps in available data for a country, we used subregional averages to extrapolate missing values and calculate the GPS for the country.⁵⁸⁰ We did this only selectively to ensure that scores were not skewed significantly due to missing data. We undertook such extrapolations only for the purpose of GPS calculations and not for any other analysis such as identification of impact zones. When identifying a “world best” and “Asia Pacific best” GPS score, we chose countries where data are available for all indicators in each category.

⁵⁸⁰ The exceptions are the Philippines and Singapore on unpaid care work, where we used the best in Asia Pacific given their leading performance in the region on other metrics related to gender parity in work.



BIBLIOGRAPHY

A

- Adema, Willem, "Greater gender equality: What role for family policy?" *Family Matters*, number 93, December 2013.
- Aker, Jenny C., Rachid Boumnijel, Amanda McClelland, and Niall Tierney, "Payment mechanisms and antipoverty programs: Evidence from a mobile money cash transfer experiment in Niger", *Economic Development and Cultural Change*, volume 65, number 1, October 2016.
- Akgunduz, Yusuf Emre, and Janneke Plantenga, "Labour market effects of parental leave in Europe", *Cambridge Journal of Economics*, volume 37, issue 4, July 2013.
- Akhoun, Ishita, *How women in India are able to help each other through self-help groups*, Youth Ki Awaaz, May 24, 2017.
- Albert, Jose Ramon G., and Jana Flor Vizmanos, *Closing the gender gap in economic opportunities*, Rappler, February 2, 2017.
- Alibaba Group, "Make a better rural China", presented at 2016 Investor Day in Hangzhou, June 14, 2016 (<http://www.alibabagroup.com/en/ir/pdf/160614/09.pdf>)
- AliResearch, *Analysis of female consumption, entrepreneurship and financial needs in the great Taobao ecosystem*, 2016.
- AliResearch, *Women in the era of Internet Plus*, May 2015.
- All-China Women's Federation, *ACWF unveils 'most beautiful families' of 2017*, May 27, 2017.
- Alvarez, J. Benjamin C., and Patricia M. Alvarez, "The Filipino family-owned business: A matriarchal model", *Philippine Studies*, volume 20, number 4, fourth quarter 1972.
- The American Chamber of Commerce in Japan, *Untapped potential: A collaborative blueprint for achieving the Japanese government's "2020/30" overall target of women holding 30 percent of management and leadership positions by 2020*, 2016.
- Andajani, Sari, Olivia Hadiwirawan, and Yasinta Astin Sokang, "Women's leadership in Indonesia: Current discussion, barriers, and existing stigma", *Indonesian Feminist Journal*, volume 4, number 1, March 2016.
- Apps, Patricia F., "The central role of a well-designed income tax in 'the modern economy'", *Australian Tax Forum*, volume 30, number 4, 2015.
- Arsana, I. Gede Putra, and Salman Alibhai, *Women entrepreneurs in Indonesia: A pathway to increasing shared prosperity*, World Bank, April 2016.
- Asian Development Bank, *Balancing the burden? Desk review of women's time poverty and infrastructure in Asia and the Pacific*, 2015.
- Asian Development Bank, *Gender equality in the labor market in the Philippines*, December 2013.
- The Asia Foundation, *Religious courts: Improving women's access to justice in Indonesia*, July 2010.
- Asia-Pacific Economic Cooperation, *Policy partnership on women and the economy working group* (<https://www.apec.org/Groups/SOM-Steering-Committee-on-Economic-and-Technical-Cooperation/Working-Groups/Policy-Partnership-on-Women-and-the-Economy>).
- ASIC's Financial Literacy Community of Practice, *Delivering financial education in Singapore*, Australian Securities and Investments Commission, February 2016.
- Association of Women for Action and Research, *Violence against women fact sheet: Public perceptions and attitudes towards violence against women* (<http://www.aware.org.sg/information/violence-against-women-in-singapore/>).
- Attané, Isabelle, "Being a woman in China today: A demography of gender", *China Perspectives*, number 2012/4, 2012.
- Aurik, Johan, and Helena Leurent, *Which countries are best prepared for the future of production?* World Economic Forum, January 2018.
- Aurizon, *Case study: Gender diversity at Aurizon* (https://www.aurizon.com.au/~/_/media/aurizon/files/sustainability/diversity/aurizon%20diversity%20case%20study.ashx).
- Australia Indonesia Partnership for Economic Governance, Australian Department of Foreign Affairs and Trade, and Monash University Centre for Development Economics and Sustainability, *Gender inequality in Indonesia*, October 2015.

Australia Indonesia Partnership for Economic Governance, Australian Department of Foreign Affairs and Trade, and Monash University Centre for Development Economics and Sustainability, *Women's economic participation in Indonesia: A study of gender inequality in employment, entrepreneurship, and key enablers for change*, June 2017.

Australian Council of Learned Academies, *Securing Australia's future: STEM: Country comparisons*, January 2013.

Australian Government Department of Employment (now Department of Jobs and Small Business), *More jobs. Great workplaces: Annual report 2015–16*, October 2016.

Australian Government Fair Work Ombudsman, *Leave* (<https://www.fairwork.gov.au/leave>).

Australian Government Productivity Commission, *Childcare and early childhood learning*, Overview and recommendations, Productivity Commission Inquiry Report, number 73, October 31, 2014.

Australian Government Productivity Commission, *Report on government services 2018*, 2018.

Australian Human Rights Commission, *Change the course: National report on sexual assault and sexual harassment at Australian universities*, 2017.

Australian Human Rights Commission, *Ending workplace sexual harassment: A resource for small, medium, and large employers*, 2014.

Australian Human Rights Commission, *Sexual harassment: Know where the line is*, May 21, 2014.

Australian Human Rights Commission, *Supporting working parents: Pregnancy and return to work national review—report*, 2014.

Australian Institute of Family Studies, *The longitudinal study of Australian children annual statistical report 2014*, August 2015.

Azmi, Ilhaamie Abdul Ghani, Sharifah Hayaati Syed Ismail, and Siti Arni Basir, "Women career advancement in public service: A study in Indonesia", *Procedia—Social and Behavioral Sciences*, volume 58, October 12, 2012.

B

Bagri, Neha Thirani, *Japan leads the world in paid paternity leave but fails on nearly every other measure of workplace gender equality*, Quartz, March 8, 2017.

Bangko Sentral ng Pilipinas, *Consumer finance survey*, 2014.

Bankwest Curtin Economics Centre and Workplace Gender Equality Agency, *Gender equity insights 2017: Inside Australia's gender pay gap*, March 2017.

Baughn, C. Christopher, Bee-Leng Chua, and Kent E. Neupert, "The normative context for women's participation in entrepreneurship: A multicountry study", *Entrepreneurship Theory and Practice*, volume 30, issue 5, 2006.

BHP, *No silver bullet but great progress on gender balance*, press release, September 18, 2017.

Blau, Francine D., and Lawrence M. Kahn, "The gender pay gap", *The Economists' Voice*, volume 4, issue 4, June 2007.

Blum, Sonja, Alison Koslowski, and Peter Moss, eds., *13th international review of leave policies and related research 2017*, International Network on Leave Policies and Research, June 2017.

BNY Mellon and the UN Foundation, *Return on equality: Investment opportunities to help close the global gender gap*, January 2017.

Bohnet, Iris, and Jeni Klugman, *Behavioural insights and gender equality: The second VicHealth Leading Thinkers residency*, Victorian Health Promotion Foundation, April 2017.

Booth, Allison J., and Patrick J. Nolen, *Choosing to compete: How different are girls and boys? IZA discussion paper number 4027*, February 2009.

Broadband Commission for Sustainable Development, *The state of broadband: Broadband catalyzing sustainable development*, September 2017.

Budlender, Debbi, "What do time use studies tell us about unpaid care work? Evidence from seven countries", in *Time use studies and unpaid care work*, United Nations Research Institute for Social Development, 2010.

C

Cabinet Office, Government of Japan, *Public opinion poll on gender equality in society*, 2016 (<https://survey.gov-online.go.jp/h28/h28-danjo/2-1.html>)

Cabinet Public Relations Office, Government of Japan, *Utilisation of foreigners conducting housekeeping services* (https://www.kantei.go.jp/jp/singi/tiiki/kokusentoc/pdf/gaiyou_English.pdf)

Cabral, Esperanza I., "The Philippine health agenda for 2016 to 2022", *Philippine Journal of Internal Medicine*, volume 54, number 2, April–June, 2016.

Cabrita, Jorge, and Felix Wohlgemuth, *Promoting uptake of parental and paternity leave among fathers in the European Union*, European Foundation for the Improvement of Living and Working Conditions, February 2015.

Cameron, Lisa, Diana Contreras Suarez, and Katy Cornwell, *Technical note: Understanding the causes of maternal mortality in Indonesia*, Australia-Indonesia Partnership for Gender Equality and Women's Empowerment (MAMPU), June 2016.

Catalyst Knowledge Center, *Sponsoring women to success*, August 17, 2001.

Catalyst, *Sponsorship/mentoring* (<http://www.catalyst.org/knowledge/topics/sponsorshipmentoring>).

Chen, Mengni, Paul S. F. Yip, and Mui Teng Yap, "Identifying the most influential groups in determining Singapore's fertility", *Journal of Social Policy*, volume 47, issue 1, January 2018.

Chen, Wansi, Yucheng Zhang, Karin Sanders, and Shan Xu, "Family-friendly work practices and their outcomes in China: The mediating role of work-to-family enrichment and the moderating role of gender", *The International Journal of Human Resource Management*, June 2016.

China Labour Bulletin, "Why raising the retirement age is a bad idea for workers", June 22, 2012.

China Labour Bulletin, "Workplace discrimination in China", November 20, 2012.

Chinese National People's Congress Network, *Decision on the quotas and election of representatives to the 13th National People's Congress at the fifth session of the 12th National People's Congress*, March 15, 2017 (http://www.npc.gov.cn/npc/xinwen/2017-03/15/content_2018912.htm)

Citigroup, "Diversity", in *2015 Citi global citizenship report*, 2016 (<http://www.citigroup.com/citi/about/citizenship/download/2015/global/2015-citi-global-citizenship-factsheet-diversity-en.pdf>)

Claussen, Heather L., *Unconventional sisterhood: Feminist Catholic nuns in the Philippines*, University of Michigan Press, 2001.

Coffman, Katherine B., Christine L. Exley, and Muriel Niederle, *When gender discrimination is not about gender*, Harvard Business School working paper 18-054, December 2017.

CPA Australia, *The CPA Australia workplace flexibility survey 2016*, 2016.

Cruz, Lourdes J., "Gender parity and Filipino women in science and technology", in *Women in science and technology in Asia*, The Association of Academies and Societies of Sciences in Asia, 2015.

D

da Silva Wells, Carmen, Sunetra Lala, V. Kurian Baby, and Joep Verhagen, *Maximizing the benefits of learning and knowledge management to tackle the sanitation challenge in India*, International Water and Sanitation Centre, 2013.

Dacuycuy, Connie B., *Wages, housework and attitudes in the Philippines*, Philippine Institute for Development Studies discussion paper number 2016-36, November 2016.

Dahlgreen, Will, *Global report: Attitudes to gender*, YouGov, November 12, 2015.

Dasgupta, Sukti, Makiko Matsumoto, and Cuntao Xia, *Women in the labour market in China*, ILO Asia-Pacific working paper series, May 2015.

Didi Chu Xing, *DiDi launches Women's Network, introducing leadership programs for its 40 percent women workforce*, press release, March 29, 2017.

Dinkelman, Taryn, "The effects of rural electrification on employment: New evidence from South Africa", *American Economic Review*, volume 101, number 7, December 2011.

Dong, Xiao-yuan, and Xinli An, "Gender patterns and value of unpaid care work: Findings from China's first large-scale time use survey", *The Review of Income and Wealth*, volume 61, issue 3, September 2015.

Downes, Ronnie, Lisa von Trapp, and Scherie Nicol, "Gender budgeting in OECD countries", *OECD Journal on Budgeting*, volume 16, issue 3, OECD, 2017.

Ducanes, Geoffrey, and Manolo Abella, *Overseas Filipino workers and their impact on household poverty*, ILO Asian Regional Programme on Governance of Labour Migration, working paper number 5, January 2008.

Durano, Charity, *Self-help groups bolster rural women in southern Philippines*, Global Sisters Report, January 25, 2018.

E

Economist Intelligence Unit, *Mind the gaps: Perceptions of gender equality in corporate Southeast Asia*, 2016.

Ellingrud, Kweilin, Mekala Krishnan, Anu Madgavkar, and Tracy Nowski, *Opinion: How cross-sector collaborations can accelerate progress toward gender equality*, Devex, November 2017.

Eren, Ozkan, “Differential peer effects, student achievement, and student absenteeism: Evidence from a large-scale randomized experiment”, *Demography*, volume 54, issue 2, April 2017.

Evertsson, Marie, “The reproduction of gender: Housework and attitudes towards gender equality in the home among Swedish boys and girls”, *The British Journal of Sociology*, volume 57, issue 3, September 2006.

Eydal, Guðný Björk, and Ingólfur V. Gíslason, “Paid parental leave in Iceland—history and context”, in *Equal rights to earn and care: Parental leave in Iceland*, 2008.

F

Feng, Zhanlian, Chang Liu, Xiping Guan, and Vincent Mor, “China’s rapidly aging population creates policy challenges in shaping a viable long-term care system”, *Health Affairs*, volume 31, number 12, December 2012.

Ferrant, Gaëlle, Luca Maria Pesando, and Keiko Nowacka, *Unpaid care work: The missing link in the analysis of gender gaps in labour outcomes*, OECD Development Centre, December 2014.

Fink, Larry, *Larry Fink’s annual letter to CEOs: A sense of purpose*, BlackRock, January 2018.

Fisman, Ray, “It takes a village ... to fail to thank its female leader, no matter how good she is”, *Slate*, November 27, 2007.

Fong, Vanessa L., “China’s one-child policy and the empowerment of urban daughters”, *American Anthropologist*, volume 104, issue 4, December 2002.

Freeman, Chalya, Julia Curran, Danielle Littee, Kristina M. Allen, Kira Edgren, Alice Leong; Kathryn Scott, *Footprints: Taking strides toward gender parity and sustainable diversity and inclusion*, Takeda Pharmaceuticals International (https://www.hbanet.org/sites/hba.cms.memberfuse.com/hba/files/docs/Corporate/Annual_Conference/Posters/P07-Freeman_et_al_Takeda.pdf)

Freire, Tiago, “How the 1978 foreign domestic workers law increased the labor supply of Singaporean women”, *The Singapore Economic Review*, volume 61, number 05, December 2016.

G

Global Entrepreneurship Monitor, *GEM 2016/2017 global report*, 2017.

Global Entrepreneurship Monitor, *GEM 2016/17 women’s entrepreneurship report*, 2017.

Godbole, Rohini M., and Ramakrishna Ramaswamy, “Women scientists in India”, in *Women in science and technology in Asia*, The Association of Academies and Societies of Sciences in Asia, 2015.

Goldin, Claudia, “The U-shaped female labor force function in economic development and economic history”, in T. Paul Schultz, ed., *Investment in women’s human capital*, University of Chicago Press, 1995.

Goldman Sachs, *10,000 women* (<http://www.goldmansachs.com/citizenship/10000women/>)

Golley, Jane, and Rod Tyers, “Gender ‘rebalancing’ in China”, *Asian Population Studies*, volume 10, issue 2, 2014.

Gompers, Paul A., and Sophie Q. Wang, *Diversity in innovation*, Harvard Business School working paper 17-067, January 2017.

Government of India, “Gender and son meta-preference: Is development itself an antidote?” in *Economic survey 2017–18, volume 1*, January 2018.

Government of India, “State of the economy: An analytical overview and outlook for policy”, in *Economic survey 2017–18, volume 1*, January 2018.

Government of India, Ministry of Electronics and Information Technology, *CSC (Common Service Centres) Scheme 2.0* (<https://csc.gov.in/cscscheme>)

Government of India, Ministry of Finance, *Progress report*, Pradhan Mantri Jan Dhan Yojana.

Government of India, Ministry of Health and Family Welfare, *Key findings from NFHS-4, National Family Health Survey* (http://rchiips.org/NFHS/factsheet_NFHS-4.shtml)

Government of India, Ministry of Health and Family Welfare, *National Family Health Survey (NFHS-4), 2015–16*, December 2017.

Government of India, Ministry of Human Resource Development, Department of Higher Education, *All India survey on higher education (2012–2013)*, 2015.

Government of Japan, *The 5th Science and Technology Basic Plan*, January 22, 2016.

Government of Japan, *Gender equality policy in Japan*, Gender Equality Bureau, Cabinet Office, August 2017 (http://www.gender.go.jp/international/int_kaigi/int_acw3/pdf/contry_presentation_japan_09.pdf#page=14)

Government of Japan, Gender Equality Bureau, *Cabinet Office, Expansion of women’s participation in policy and decision-making processes in all fields in society*, 2016.

Government of Japan, Gender Equality Bureau, Cabinet Office, “The fourth basic plan for gender equality”, in *Women and men in Japan 2017*, 2017 (http://www.gender.go.jp/english_contents/pr_act/pub/pamphlet/women-and-men16/pdf/2-4.pdf)

Government of Japan, Gender Equality Bureau, Cabinet Office, *Male leaders efforts to promote women’s active role in Japan*, August 2015 (http://www.gender.go.jp/english_contents/mge/declaration/pdf/women_active_role.pdf)

Government of Japan, Gender Equality Bureau, Cabinet Office, *Numerical targets and updated figures of the 4th basic plan for gender equality*, 2017 (http://www.gender.go.jp/about_danjo/seika_shihyo/pdf/numerical_targets_2017.pdf)

Government of Japan, Gender Equality Bureau, Cabinet Office, “Utilizing the act to promote women’s participation to accelerate and expand the advancement of women”, from *White paper on gender equality 2017*, 2017.

Government of Japan, Ministry of Finance, *FY2017 tax reform (main points)*, (Cabinet decision on December 22, 2016) (http://www.mof.go.jp/english/tax_policy/tax_reform/fy2017/tax2017a.pdf)

Government of Japan, Ministry of Foreign Affairs, *G7 Initiative on women and STEM: Women’s initiative in developing STEM career (WINDS)*, 2016 (<http://www.mofa.go.jp/files/000159926.pdf>)

Government of Japan, Ministry of Health, Labour and Welfare, *Efforts aimed resolution of waiting lists for public childcare centres*, 2017, April 25, 2017 (<http://www5.cao.go.jp/keizai-shimon/kaigi/special/reform/wg1/290425/shiryu2.pdf>)

Government of Japan, Ministry of Health, Labour and Welfare, Labour survey, 2014 (<http://www.mhlw.go.jp/file/04-Houdouhappyou-11902000-Koyoukintoujidoukateikyoku-Koyoukintouseisakuka/kakusoku2.pdf>)

GSMA, *Accelerating affordable smartphone ownership in emerging markets*, 2017.

GSMA, *Bridging the gender gap: Mobile access and usage in low- and middle-income countries*, 2015.

GSMA Development Fund and Cherie Blair Foundation for Women, *Women & mobile: A global opportunity*, 2010.

H

Halabisky, David, *5 ways policy could close the gender gap in entrepreneurship*, World Economic Forum, October 19, 2017.

Halim, Daniel Zefanya, Hillary C. Johnson, and Elizaveta Perova, *Could childcare services improve women’s labour market outcomes in Indonesia?*, East Asia and Pacific gender policy brief issue 1, World Bank, March 2017.

Hang Leung, Kang, *Indonesia’s summary transport assessment*, ADB papers on Indonesia, number 15, Asian Development Bank, August 2016.

Harte, Emma, and Joanna Hofman, “What is being done in Europe to get mothers back to work?” The RAND Blog, RAND Corporation, April 25, 2016.

Hasan, Amer, Marilou Hyson, and Mae Chu Chang, eds., *Early childhood education and development in poor villages of Indonesia: Strong foundations, later success*, World Bank, 2013.

Hasan, M. Mahmudul, and Mizan Rahman, “Self-help groups in Bangladesh”, *Review of Enterprise and Management Studies*, volume 2, number 1, 2015.

Hays, *2017 Hays Asia gender diversity report: Gender diversity is key to business success in Asia*, 2017.

Heath, Rachel, and A. Mushfiq Mobarak, *Manufacturing growth and the lives of Bangladeshi women*, NBER working paper number 20383, August 2014.

HeForShe, *IMPACT 10x10x10* (<http://www.heforshe.org/en/impact>).

HeForShe, *University IMPACT Champion: Seiichi Matsuo* (<http://www.heforshe.org/en/impact/seiichi-matsuo>)

Hesketh, Therese, and Zhu Wei Xing, “The effect of China’s one-child family policy after 25 years”, *The New England Journal of Medicine*, volume 353, number 11, September 15, 2005.

Hewlett, Sylvia Ann, Kerrie Peraino, Laura Sherbin, and Karen Sumberg, “The sponsor effect: Breaking through the last glass ceiling”, *Harvard Business Review*, January 12, 2011.

Hewlett, Sylvia Ann, Melinda Marshall, and Laura Sherbin, “How diversity can drive innovation”, *Harvard Business Review*, December 2013.

Hillman, Ben, “Increasing women’s parliamentary representation in Asia and the Pacific: The Indonesian experience”, *Asia & the Pacific Policy Studies*, volume 4, issue 1, January 2017.

Himmelweit, Susan, and Maria Sigala, “Choice and the relationship between identities and behaviour for mothers with pre-school children: Some implications for policy from a UK study”, *Journal of Social Policy*, volume 33, issue 3, July 2004.

- Holloway, Kyle, Zahra Niazi, and Rebecca Rouse, *Women's economic empowerment through financial inclusion: A review of existing evidence and remaining knowledge gaps*, Innovations for Poverty Action, March 2017.
- Holtzappel, Coen J. G., and Martin Ramstedt, eds., *Decentralization and regional autonomy in Indonesia: Implementation and challenges*, Institute of Southeast Asian Studies and International Institute for Asian Studies, 2009.
- Hoque, Uzma S., *Summary of Indonesia's gender analysis*, ADB Papers on Indonesia, number 06, Asian Development Bank, October 2015.
- House of Commons Science and Technology Committee, *Women in scientific careers: Sixth report of session 2013–14*, February 6, 2014.
- Huebener, Mathias, Kai-Uwe Müller, C. Katharina Spieß, and Katharina Wrohlich, "Zehn Jahre elterngeld: Eine wichtige familienpolitische Maßnahme (Ten years of parental benefits: An important family policy measure)", *DIW-Wochenbericht*, German Institute for Economic Research, volume 83, number 49, December 2016.
- Huerta, Maria C., Willem Adema, Jennifer Baxter, Wen-Jui Han, Mette Lausten, Raehyuck Lee, and Jane Waldfoegel, "Fathers' leave and fathers' involvement: Evidence from four OECD countries", *European Journal of Social Security*, volume 16, issue 4, December 2014.
- Human Rights Watch, *Indonesia: Events of 2016* (<https://www.hrw.org/world-report/2017/country-chapters/indonesia>)
- Hunt, Abigail, and Fortunate Machingura, *A good gig? The rise of on-demand domestic work*, ODI working and discussion papers, Overseas Development Institute, December 2016.
- Huntington, Dale, Eduardo Banzon, and Zenaida Dy Recidoro, "A systems approach to improving maternal health in the Philippines", *Bulletin of the World Health Organization*, volume 90, number 2, February 2012.
- Ilahi, Nadeem, and Franque Grimard, "Public infrastructure and private costs: Water supply and time allocation of women in rural Pakistan", *Economic Development and Cultural Change*, volume 49, number 1, October 2000.
- ILO, *Domestic workers in the Philippines: Profile and working conditions*, 2010.
- ILO Country Office for India, *India labour market update*, July 2016.
- I-Min, Pearl Lim, and Tham Zheng Kang, "Females catching up with males in enrolment at local tertiary institutions", *Statistics Singapore Newsletter*, Singapore Department of Statistics, March 2016.
- Indonesian Ministry of National Development Planning and National Development Planning Agency, *Background study for the preparation of the RPJMN for Education 2015–2019*, Part 1: Basic education, early childhood, access and quality, 2015.
- Institute for Fiscal Studies, *The gender wage gap*, briefing note number BN186, 2016.
- Intel Corporation and Dalberg Global Development Advisors, *Women and the Web: Bridging the Internet gap and creating new global opportunities in low and middle-income countries*, January 2013.
- International Bank for Reconstruction and Development, *Enhancing financial capability and inclusion in the Philippines: A demand-side assessment*, World Bank Group, 2015.
- International Finance Corporation, Accenture, and Uber, *Driving toward equality: Women, ride-hailing, and the sharing economy*, 2018.
- International Finance Corporation, Garanti Bank SA: *Combining SME banking excellence with a proposition for women entrepreneurs in Turkey*, case study, March 2014.
- International Finance Corporation, *Gender equality at the forefront of business in Singapore*, (http://www.ifc.org/wps/wcm/connect/news_ext_content/ifc_external_corporate_site/news+and+events/news/gender+equality+at+the+forefront+of+business+in+singapore).
- International Finance Corporation, *Tackling childcare: The business case for employer-supported childcare*, September 2017.
- International Finance Corporation, *Women-owned SMEs in Indonesia: A golden opportunity for local financial institutions*, March 2016.
- International Labour Organization, *Decent work for domestic workers in the Philippines*, 2014.
- International Trade Union Confederation, *Stopping sexual harassment at work*, April 2008.
- Internet and Mobile Association of India and Kantar IMRB Technology Practice, *Internet in India—2016: An IAMAI & KANTAR IMRB report*, 2016.
- Inter-Parliamentary Union, *Women in national parliaments* (<http://archive.ipu.org/wmn-e/arc/classif011017.htm>)

J

Jadhav, Apoorva, Abigail Weitzman, and Emily Smith-Greenawam, "Household sanitation facilities and women's risk of non-partner sexual violence in India", *BMC Public Health*, volume 16, 2016.

Jain, Amrita, *Early childhood—key issues, challenges and approaches in the Indian context*, 2008.

Japan Science and Technology Agency, *Percentage of female researchers in Japan is 20%, the lowest among 12 countries/areas surveyed*, April 7, 2017 (https://scienceportal.jst.go.jp/news/newsflash_review/newsflash/2017/04/20170407_02.html)

Jensen, Robert, and Emily Oster, "The power of TV: Cable television and women's status in India", *Quarterly Journal of Economics*, volume 124, issue 3, August 2009.

Jha, Shreyasi, and Abha Saxena, eds., *Projected gender impact of the ASEAN Economic Community*, UN Women Asia and the Pacific, 2016.

Johnsen, Sigbjørn, "Women in work: The Norwegian experience", *OECD Observer*, number 293, Q4 2012.

Jumde, Anandita, *How Common Service Centres are revolutionising e-governance in rural India*, The Better India, May 31, 2016.

K

Kalmijn, Matthijs, "Attitude alignment in marriage and cohabitation: The case of sex-role attitudes", *International Journal of Psychology*, volume 12, issue 4, December 2005.

Kang, Duckju, *How bad is the gender wage gap in Singapore?* ValuePenguin.

Karlan, Dean, Jake Kendall, Rebecca Mann, Rohini Pande, Tavneet Suri, and Jonathan Zinman, *Research and impacts of digital financial services*, NBER working paper number 22633, September 2016.

Katjasungkana, Nursyahbani, and Saskia E. Wieringa, eds., *The future of Asian feminisms: Confronting fundamentalisms, conflicts and neo-liberalism*, Cambridge Scholars Publishing, 2012.

Keidanren (Japanese Business Federation), *Action plan on women's active participation in the workforce: Enhancing corporate competitiveness and achieving sustainable economic growth*, April 15, 2014.

Kelly Services, *Women in STEM: Why an inclusive strategy is critical to closing the science, technology, engineering, and maths talent gap in Europe*, 2015.

Khalakdina, Margaret, *Early childcare in India*, Routledge, 2017.

Kinias, Zoe, and Jessica Sim, "Facilitating women's success in business: Interrupting the process of stereotype threat through affirmation of personal values", *Journal of Applied Psychology*, volume 101, number 11, November 2016.

Kivunike, Florence Nameere, Love Ekenberg, and Mats Danielson, "Perceptions of the role of ICT on quality of life of people in rural communities in Uganda", *Information Technology for Development*, volume 17, issue 1, 2011.

Klasen, Stephan, and Claudia Wink, "Missing women: Revisiting the debate", *Feminist Economics*, volume 9, issue 2–3, February 2003.

Klugman, J., and L. Wang, *How women have fared in the labour market with China's rise as a global economic power*, UNHLP background brief, 2016.

Kogdenko, Nadja, *Successfulness of bus rapid transit systems in Asia: Ex-post evaluation*, Energy Research Center of the Netherlands, February 2011.

L

Lai-ching, Leung, and Chan Kam-wah, "A family-friendly policy for Hong Kong: Lessons from three international experiences", *International Journal of Sociology and Social Policy*, volume 32, issue 1/2, 2012.

Lazar, Michelle M., "Equalizing gender relations: A case of double-talk", *Discourse and Society*, volume 4, issue 4, October 1993.

Lean In and SurveyMonkey, *Sexual harassment in the workplace: Key findings*, 2018 (<https://leanin.org/sexual-harassment-backlash-survey-results/>)

Lean In China, *2016 women, work and happiness white paper*, November 2016. <http://www.leaninchina.com.cn/col.jsp?id=141>

Lee, Jean, "Perception of women managers in Singapore: A media analysis", *Asia Pacific Business Review*, volume 11, issue 2, June 2005.

Lieberman, Samuel S., *Decentralization and health in the Philippines and Indonesia: An interim report*, World Bank, East Asia and Pacific Region, April 2002.

Lim, Linda Y. C., "Beyond gender: The impact of age, ethnicity, nationality and economic growth on women in the Singapore economy", *The Singapore Economic Review*, volume 60, number 02, June 2015.

Lyons, Lenore, "Singapore: Contradictions in the work/care regime", in *Women, work and care in the Asia Pacific*, Marian Baird, Michele Ford, and Elizabeth Hill, eds., Routledge, 2017.

M

MacPhail, Fiona, *Is gender inequality really so low in the Philippines?* East Asia Forum, March 2015.

Male Champions of Change, *We set the tone: Eliminating everyday sexism*, October 2017.

Mananzan, Mary John, *The Filipino women: Before and after the Spanish conquest of the Philippines*, Institute of Women's Studies, St. Scholastica's College, 2003.

Martin, Phiona, and Antoni Barnard, "The experience of women in male-dominated occupations: A constructivist grounded theory inquiry", *SA Journal of Industrial Psychology*, volume 39, number 2, 2013.

Mason, Andrew D., Reena Badiani, Trang Van Nguyen, Katherine Patrick, and Ximena Del Carpio, *Toward gender equality in East Asia and the Pacific: A companion to the World Development Report*, World Bank, 2012.

Mastercard, *Girls in tech: The path of young women to a career in STEM*, January 2018.

Mastercard, *Inspiring girls in STEM: Mastercard's Girls4Tech program to reach more than 13,000 girls in Singapore by 2018*, press release, October 11, 2017.

Mastercard, *Low confidence limits number of girls pursuing STEM careers in Singapore: Inaugural Mastercard study*, press release, March 16, 2016.

Mastercard, *Women in Asia's emerging markets take reins of household finances: Mastercard survey*, press release, March 27, 2013.

Matsui, Kathy, Hiromi Suzuki, Kazunori Tatebe, and Tsumugi Akiba, *Womenomics 4.0: Time to walk the talk*, Goldman Sachs Portfolio Strategy Research, May 30, 2014.

Maxwell, Claire, Ulrike Deppe, Heinz-Hermann Krüger, and Werner Helsper, eds., *Elite education and internationalisation: From the early years to higher education*, Palgrave Macmillan, 2018.

McKinsey & Company Technology, Media and Telecom Practice, *Offline and falling behind: Barriers to Internet adoption*, October 2014.

McKinsey & Company Telecommunications, Media and Technology Practice, *Ten ideas to maximize the socioeconomic impact of ICT in Indonesia*, March 2015.

McKinsey & Company, *Delivering through diversity*, January 2018.

McKinsey & Company, *Digital revolution: What it means for Indonesian business*, February 2017.

McKinsey & Company, *Diversity matters*, February 2015.

McKinsey & Company, *Women Matter: An Asian perspective: Harnessing female talent to raise corporate performance*, 2012.

McKinsey & Company, *Women Matter: Time to accelerate: Ten years of insights into gender diversity*, October 2017.

McKinsey & Company, Workplace Gender Equality Agency, and Business Council of Australia, *Women in leadership: Lessons from Australian companies leading the way*, November 2017.

McKinsey Australia, *Compete to prosper: Improving Australia's global competitiveness*, July 2014.

McKinsey Global Institute, *A labor market that works: Connecting talent with opportunity in the digital age*, June 2015.

McKinsey Global Institute, *China's choice: Capturing the \$5 trillion productivity opportunity*, June 2016.

McKinsey Global Institute, *Delivering the power of parity: Toward a more gender-equal society*, discussion paper, May 2016.

McKinsey Global Institute, *Digital China: Powering the economy to global competitiveness*, December 2017.

McKinsey Global Institute, *Digital finance for all: Powering inclusive growth in emerging economies*, September 2016.

McKinsey Global Institute, *Global flows in a digital age: How trade, finance, people, and data connect the world economy*, April 2014.

McKinsey Global Institute, *Global growth: Can productivity save the day in an aging world?* January 2015.

McKinsey Global Institute, *How advancing women's equality can add \$12 trillion to global growth*, September 2015.

McKinsey Global Institute, *Independent work: Choice, necessity, and the gig economy*, October 2016.

McKinsey Global Institute, *India's labour market: A new emphasis on gainful employment*, June 2017.

McKinsey Global Institute, *India's technology opportunity: Transforming work, empowering people*, December 2014.

McKinsey Global Institute, *Jobs lost, jobs gained: Workforce transitions in a time of automation*, December 2017.

McKinsey Global Institute, *The power of parity: Advancing women's equality in India*, November 2015.

- McKinsey Global Institute, *The power of parity: How advancing women's equality can add \$12 trillion to global growth*, September 2015.
- McKinsey Global Institute, *The world at work: Jobs, pay, and skills for 3.5 billion people*, June 2012.
- McKinsey Global Institute, *What's now and next in analytics, AI, and automation*, briefing note, May 2017.
- McKinsey Indonesia Office, *Unlocking Indonesia's digital opportunity*, October 2016.
- McLaughlin, Heather, Christopher Uggen, and Amy Blackstone, "The economic and career effects of sexual harassment on working women", *Gender & Society*, volume 31, issue 3, June 2017.
- Meeker, Mary, *Internet trends 2017*, Kleiner Perkins, May 31, 2017.
- Melhuish, Edward, and Konstantinos Petrogiannis, eds., *Early childhood care and education: International perspectives*, Routledge, 2006.
- Merluzzi, Natalia, *These businesses are taking the equal pay pledge*, White House blog, June 14, 2016.
- MicroSave and Center for Global Development, *Household perception: Impact of Bhamashah on digital governance reforms in Rajasthan*, version 1.0, December 2017.
- MicroSave, *Digital financial inclusion India—a growth trajectory*, October 2013–March 2017 (http://www.microsave.net/files/pdf/GSI_Feasibility_Statement.pdf)
- Mirvac, *2017 annual report*.
- Miyajima, Takeru, and Hiroyuki Yamaguchi, "I want to but I won't: Pluralistic ignorance inhibits intentions to take paternity leave in Japan", *Frontiers in Psychology*, September 20, 2017.
- Mohapatra, Diptirekha, *Female workers in the unorganised sector in India*, International Conference on Studies in Humanities and Social Sciences in Phuket, Thailand, July 29–30, 2015.
- Morgan, Candice, "What we learned from improving diversity rates at Pinterest", *Harvard Business Review*, July 11, 2017.
- Moss-Racusin, Corinne A., Jojanneke van der Toorn, John F. Dovidio, Victoria L. Brescoll, Mark J. Graham, and Jo Handelsman, "A 'scientific diversity' intervention to reduce gender bias in a sample of life scientists", *CBE—Life Sciences Education*, volume 15, number 3, September 2016.
- Murthy, Sohan, *Women in software engineering: The sobering stats*, LinkedIn Talent blog, March 20, 2014.
- N**
- Nagpal, Mohita, *Women in tech: There are 3 times more male engineers to females*, Belong Technologies India, August 31, 2017.
- Nakane, Chie, *Japanese society*, Penguin Books, 1970.
- National Bureau of Statistics of the People's Republic of China, *2016 migrant workers monitoring survey report*, 2017 (http://www.stats.gov.cn/tjsj/zxfb/201704/t20170428_1489334.html).
- National Economic and Development Authority, *Philippine development plan 2017–2022*, 2017.
- National People's Congress of the People's Republic of China, *Decision of the fifth session of the 10th National People's Congress on the number of deputies to the 11th National People's Congress and on the election of the deputies*, 2009 (http://www.npc.gov.cn/englishnpc/Law/2009-02/25/content_1472459.htm)
- National Personnel Authority, *Announcement of successful participants in Heisei 29 – year National Public Service adopted comprehensive job examination*, June 30, 2017 (<http://www.jinji.go.jp/kisya/1706/sougousaigou.htm>)
- Nelson, Jane, Marli Porth, Kara Valikai, and Honor McGee, *A path to empowerment: The role of corporations in supporting women's economic progress*, Harvard Kennedy School and U.S. Chamber of Commerce, April 2015.
- Nobel Women's Initiative, *Call for better conditions for Bangladesh women factory workers*, 2013.
- Noerdin, Edriana, "Transport, health services and budget allocation to address maternal mortality in rural Indonesia", *Transport and Communications Bulletin for Asia and the Pacific*, number 84, UN Economic and Social Commission for Asia and the Pacific, December 12, 2014.
- Nott, George, "Is flexible working bad for your career?" *CIO*, May 30, 2017.
- O**
- Obunsha Company Education Information Centre, *FY2017 college/junior college entrance status by prefecture*, August 2017 (http://eic.obunsha.co.jp/eic/resource/pdf/2017_shingakujokyo/02.pdf)
- OECD, *Japan policy brief: Greater gender equality for more inclusive growth*, April 2015.
- OECD, *Singapore tops latest OECD PISA global education survey*, press release, December 6, 2016.
- OECD, *Starting strong IV: Monitoring quality in early childhood education and care*, October 28, 2015.

OECD, *The pursuit of gender equality: An uphill battle*, 2017.

OECD, *Women, government and policy making in OECD countries: Fostering diversity for inclusive growth*, 2014.

Oláh, Livia Sz., “Gendering fertility: Second births in Sweden and Hungary”, *Population Research and Policy Review*, volume 22, issue 2, April 2003.

Olatokun, Wole Michael, “Analysing socio-demographic differences in access and use of ICTs in Nigeria using the capability approach”, *Issues in Informing Science and Information Technology*, volume 6, 2009.

Open Government Data Platform India, *Loan disbursement to women entrepreneurs under Pradhan Mantri Mudra Yojana as on 31.03.2016*, October 19, 2016.

P

Patunru, Arianto A., “Access to safe drinking water and sanitation in Indonesia”, *Asia & the Pacific Policy Studies*, volume 2, issue 2, May 2015.

People’s Republic of China, *Law of the People’s Republic of China on the protection of the rights and interests of the elderly (2015 amendment)*, 2015 (<http://en.pkulaw.www.wdisplay.aspx?cgid=252608&lib=law>)

Philippine Commission on Elections, *Number of candidates and elected candidates by sex per elective position*, June 2017.

Philippines Commission on Women, *Enacting a women’s political participation and representation law, policy brief number 4* (<http://www.pcw.gov.ph/wpla/enacting-women%E2%80%99s-political-participation-and-representation-law>)

Philippine Commission on Women, *Gender and development local learning hubs: Davao City* (<http://www.pcw.gov.ph/sites/default/files/documents/studies/Davao%20GAD%20LLH%20Write%20up.pdf>).

Philippine Commission on Women, *Republic Act 9710: Magna Carta of Women* (<http://pcw.gov.ph/law/republic-act-9710>)

Philippine Commission on Women, *Strengthening law enforcement and protection against sexual offenses: Expanding the Anti-Sexual Harassment Law*, policy brief number 5, 2016.

Philippine Commission on Women, *Towards a gender fair media*, 2013.

Philippine Statistics Authority, *2016 annual poverty indicators survey*, 2017.

Philippine Statistics Authority, *2016 gender statistics on labor and employment*, 2016 (<https://psa.gov.ph/sites/default/files/attachments/ird/pressrelease/GSLE%202016%20PUBLICATION.pdf>).

Philippine Statistics Authority, *2016 statistical handbook on women and men in the Philippines*, 2016.

Philippine Statistics Authority, *July 2016 labor force survey*, 2017.

Philippine Statistics Authority, *Labor force participation of women in the Philippines across the life cycle*, 2013.

Philippine Statistics Authority, National Demographic and Health Survey 2013, August 2014.

Ping, Zhang, *Women’s annual ‘Blue Book’ on spending, life topics released in Beijing*, All-China Women’s Federation, June 20, 2017.

Pinterest, *Oh, how Pinteresting! A 2016 update on diversity at Pinterest*, December 16, 2016.

Population Europe Resource Finder and Archive, *Family policies: Sweden (2014)* (<http://www.perfar.eu/policy/family-children/sweden>)

Population Foundation of India, *Annual report 2015–16*, 2016.

Prasad, Rohit, and Rupamanjari Sinha Ray, “Critique of the Common Service Centre scheme”, *Economic & Political Weekly*, volume 47, issue 06, February 11, 2012.

Professionals Australia, *Unconscious gender bias in the STEM professions*, 2015.

Programme for International Student Assessment (PISA), *PISA 2015 results*, volumes I–V, OECD, 2016–17.

Q

Quek, Karen Mui-Teng, and Carmen Knudson-Martin, “A push toward equality: Processes among dual-career newlywed couples in collectivist culture”, *Journal of Marriage and Family*, volume 68, issue 1, February 2006.

R

Raghuram, Parvati, Clem Herman, Esther Ruiz-Ben, and Gunjan Sondhi, *Women and IT Scorecard—India: A survey of 55 firms*, NASSCOM and The Open University UK, spring 2017.

Rahman, Rushidan I., and Rizwanul Islam, *Female labour force participation in Bangladesh: Trends, drivers and barriers*, ILO Asia-Pacific working paper series, ILO, October 2013.

- Rajkotia, Yogesh, Jessica Gergen, Iva Djurovic, Sayaka Koseki, Martha Coe, Kebba Jobarteh, Carol Miller, and Sujata Rana, *Re-envisioning maternal and newborn health in Indonesia: How the private sector and civil society can ignite change*, USAID and Health Policy Plus, 2016.
- Ramachandran, Lakshmi, *Small steps to big changes towards gender equality in science*, National University of Singapore, May 2017.
- Rau, Ashrita, *Maternal mortality in the Philippines*, The Borgen Project, June 18, 2015.
- Republic of the Philippines Department of Education, GEMS-CL: *Addressing gender equality issues in schools*, April 3, 2017.
- Republic of the Philippines Department of Health, *Maternal deaths by main cause* (<http://www.doh.gov.ph/Statistics/Maternal-Deaths-By-Main-Cause>)
- Republic of the Philippines Technical Education and Skills Development Authority, *TESDA trainers get gender sensitivity drills*, press release, October 28, 2014.
- ReseMom*, *National public service recruitment general job examination 2017*, June 30, 2017 (<https://resemom.jp/article/img/2017/06/30/38950/172347.html>)
- Rillo, Aladdin D., and Valdimir dela Cruz, *The development dimension of e-commerce in Asia: Opportunities and challenges*, ADB Institute policy brief number 2016-2, Asian Development Bank, June 2016.
- ## S
- Save the Children Australia, *State of Australia's fathers*, September 2015.
- Scheil-Adlung, Xenia, *Long-term care protection for older persons: A review of coverage deficits in 46 countries*, Extension of Social Security series number 50, ILO International Labour Office, 2015.
- Schober, Pia, and Jacqueline Scott, "Maternal employment and gender role attitudes: Dissonance among British men and women in the transition to parenthood", *Work, Employment and Society*, volume 26, issue 3, June 2012.
- Semba, Richard D., Saskia de Pee, Kai Sun, Mayang Sari, Nasima Akhter, and Martin W. Bloem, "Effect of parental formal education on risk of child stunting in Indonesia and Bangladesh: A cross-sectional study", *The Lancet*, volume 371, number 9609, January 2008.
- Senate of the Philippines, *Billions of pesos lost in traffic; Legarda pushes for sustainable transport*, press release, January 24, 2017.
- Senate of the Philippines, *Senate bats for increase in maternity leave from 60 days to 120 days*, press release, March 6, 2017.
- Shan, Ye, *Embracing a "new era"*, All-China Women's Federation, December 26, 2017.
- Shi, Yaojiang, and John James Kennedy, "Delayed registration and identifying the 'missing girls' in China", *The China Quarterly*, volume 228, December 2016.
- Sigle-Rushton, Wendy, "Men's unpaid work and divorce: Reassessing specialization and trade in British families", *Feminist Economics*, volume 16, issue 2, 2010.
- Singapore Department of Statistics, *Population trends*, 2016, 2016 (http://www.singstat.gov.sg/docs/default-source/default-document-library/publications/publications_and_papers/population_and_population_structure/population2016.pdf)
- Singapore Government, *Census of population, 1980—release no. 9*, Department of Statistics, Ministry of Culture, press release, October 24, 1981 (<http://www.nas.gov.sg/archivesonline/speeches/record-details/7b87587c-115d-11e3-83d5-0050568939ad>).
- Singapore Ministry of Community Development, Youth and Sports, *Marriage and parenthood study 2007*, cited in *Family first: State of the family report 2009*, National Family Council and Singapore Ministry of Community Development, Youth and Sports (<https://www.msf.gov.sg/research-and-data/Research-and-Statistics/Documents/NFC-StateoftheFamilyReport2009.pdf>).
- Singapore Ministry of Health, Agency for Integrated Care, *Singapore silver pages*, January 2018 (www.silverpages.sg)
- Singapore Ministry of Manpower and Singapore Ministry of Community Development and Sports, *Flexible work arrangements*, 2001.
- Singapore Ministry of Manpower, *Conditions of employment 2016*, November 2016.
- Singapore Ministry of Manpower, *Conditions of employment*, 2011–16.
- Singapore Ministry of Manpower, *Foreign workforce numbers*.
- Singapore Ministry of Manpower, *Labour force in Singapore 2016*, January 2017.
- Singapore Ministry of Manpower, *MOM statement on Research Across Borders study*, December 1, 2017.
- Singapore Ministry of Social and Family Development, *Family and work*, Insight Series paper number 4/2017, 2017.

- Singapore Ministry of Social and Family Development, *Labour force and the economy: Labour force participation rate of married persons* (<https://www.msf.gov.sg/research-and-data/Research-and-Statistics/Pages/Labour-Force-and-the-Economy-Labour-Force-Participation-Rate-of-Married-Persons.aspx>).
- Singapore Ministry of Trade and Industry, *MTI occasional paper on population and economy*, 2012.
- Singapore National Population and Talent Division, *Marriage and parenthood study 2012*, 2012.
- Singapore National Population and Talent Division, *Projection of foreign manpower demand for healthcare sector, construction workers and foreign domestic workers*, occasional paper, November 2012.
- Singh, Renu, and Protap Mukherjee, “‘Whatever she may study, she can’t escape from washing dishes’: Gender inequity in secondary education—evidence from a longitudinal study in India”, *Compare: A Journal of Comparative and International Education*, volume 48, issue 2, 2018.
- State Council of the People’s Republic of China, *Gender equality and women’s development in China*, September 2015.
- Stewart, Miranda, ed., *Tax, social policy and gender: Rethinking equality and efficiency*, Australian National University Press, 2017.
- Su, Biwei, and Almas Heshmati, *Analysis of gender wage differential in China’s urban labor market*, IZA discussion paper number 6252, December 2011.
- Sun, Shirley Hsiao-Li, “Re-producing citizens: Gender, employment, and work-family balance policies in Singapore”, *Journal of Workplace Rights*, volume 14, issue 3, January 2009.
- Suri, Tavneet, and William Jack, “The long-run poverty and gender impacts of mobile money”, *Science*, volume 354, issue 6317, December 2016.
- Suwana, Fiona, and Lily, “Empowering Indonesian women through building digital media literacy”, *Kasetsart Journal of Social Sciences*, volume 38, issue 3, September–December 2017.
- T**
- Tata Trusts, *Doorway to a new world*, January 2018.
- Telecom Regulatory Authority of India, *The Indian telecom services performance indicators July–September 2017*, December 28, 2017.
- Thévenon, Olivier, and Anne Solaz, *Labour market effects of parental leave policies in OECD countries*, OECD Social, Employment and Migration working papers, number 141, OECD, January 2013.
- Thévenon, Olivier, Nabil Ali, Willem Adema, and Angelica Salvi del Pero, *Effects of reducing gender gaps in education and labour force participation on economic growth in the OECD*, OECD Social, Employment and Migration Working Papers, number 138, December 10, 2012.
- Timsit, Annabelle, “Overhauling Japan’s high-stakes university-admission system”, *The Atlantic*, January 13, 2018.
- U**
- UN Economic and Social Commission for Asia and the Pacific, *Gender equality and women’s empowerment in Asia and the Pacific: Perspectives of governments on 20 years of implementation of the Beijing Declaration and platform for action*, 2015.
- UN General Assembly, *Report of the working group on the issue of discrimination against women in law and in practice on its mission to China (12–19 December 2013)*, June 2014.
- UN Office of the High Commissioner for Human Rights, *End of mission statement by the special rapporteur on the human rights to safe drinking water and sanitation Mr. Léo Heller*, November 10, 2017.
- UN Office of the High Commissioner for Human Rights, *Reporting status for Singapore*, (http://tbinternet.ohchr.org/_layouts/TreatyBodyExternal/Countries.aspx?CountryCode=SGP&Lang=EN).
- UN Office of the High Commissioner for Human Rights, UNFPA, UNICEF, UN Women, and World Health Organization, *Preventing gender-biased sex selection: An interagency statement*, 2011.
- UN Population Division, *Do pro-fertility policies in Singapore offer a model for other low-fertility countries in Asia?* policy brief number 15, November 2015.
- UN Secretary-General’s High-Level Panel on Women’s Economic Empowerment, *Leave no one behind: A call to action for gender equality and women’s economic empowerment*, 2016.
- UN Women Singapore Committee, *Equal pay* (<https://www.unwomen.org.sg/causes/stoptherobbery/>).
- UN Women, *Facts and figures: Ending violence against women*, August 2017.
- UNESCO, *Closing the gender gap in STEM*, Asia-Pacific education thematic brief, August 2016.

UNESCO, *Policy review report: early childhood care and education in Indonesia*, Early Childhood and Family Policy Series number 10, February 2005.

UNESCO, *UNESCO science report: Towards 2030*, 2015.

UNFPA, *State of world population 2006: A passage to hope: Women and international migration*, 2006.

UNICEF, *The state of the world's children 2017: Children in a digital world*, 2017.

UNICEF, *Women and men in China—facts and figures 2012*, 2014.

United Nations, *The role of men and boys in promoting gender equality*, Women 2000 and beyond, December 2008.

Universities Canada, *Universities Canada principles on equity, diversity and inclusion*, press release, October 26, 2017.

University of Queensland Institute for Social Science Research, *Millennium mums report*, waves 1–5, February 2017.

University of Tokyo, *Housing assistance for female students* (http://www.u-tokyo.ac.jp/stu02/h04_11_j.html)

USAID, *Out-of-school youth learn trades in the Philippines*, July 2016.

USAID, “Safe water, sanitation reaching Indonesia’s urban poor”, *FrontLines*, March/April 2013.

USAID, *USAID supporting Women’s Livelihood Bond to benefit 385,000 women in Southeast Asia*, press release, August 7, 2017.

Utari, Valentina Y.D., *Unpaid care work in Indonesia: Why should we care?* The SMERU Research Institute, October 24, 2017.

Utomo, Ariane J., “Gender in the midst of reforms: Attitudes to work and family roles among university students in urban Indonesia”, *Marriage & Family Review*, volume 52, issue 5, November 2015.

V

van Egmond, Marcel, Janeen Baxter, Sandra Buchler, and Mark Western, “A stalled revolution: Gender role attitudes in Australia, 1986–2005”, *Journal of Population Research*, volume 27, issue 3, September 2010.

Voorhies, Rodger, Jason Lamb, and Megan Oxman, *Fighting poverty, profitably: Transforming the economics of payments to build sustainable, inclusive financial systems*, Bill & Melinda Gates Foundation, September 2013.

Vota, Wayan, *Should Indonesia be teaching ICT in schools?* ICT Works, April 14, 2014.

W

Weller, Chris, *These 10 countries have the best parental leave policies in the world*, World Economic Forum, August 24, 2016.

The Wise Campaign, *Annual report April 2015–March 2016*, 2016.

Witoelar, Firman, Alexander D. Rothenberg, T. Yudo Wicaksono, Tadeja Gracner, and Bondan Sikoki, *How Jakarta’s traffic affects labor market outcomes for women and people with disabilities: Results from a baseline survey*, Australia Indonesia Partnership for Economic Governance, September 2017.

Women’s Leadership Institute Australia, *Women for media report 2016: An analysis of the gender balance of sources and experts across Australian metropolitan print media*, 2016.

Wolf, Andrew, *WITEM 19 & 20 launch 8 April 2016, Women in IT Executive Mentoring (WITEM) Program*, Australian Government Department of Finance, April 8, 2016.

Working Families case study library, *Santander, finalist 2016, the Centrica Best for Modern Families Award* (<https://www.workingfamilies.org.uk/employers/case-studies/modern-families/santander-finalist-2016-the-centrica-best-for-modern-families-award/>)

World Bank, *Decentralizing Indonesia: A regional public expenditure review overview report*, 2003.

World Bank, “Gender equality in East Asia: Progress, and the challenges of economic growth and political change”, in *East Asia update*, 2005.

World Bank, *Implementation completion and results report, Indonesia: Early childhood education and development project*, June 27, 2014.

World Bank, *In Bangladesh, empowering and employing women in the garments sector*, February 7, 2017.

World Bank, *Live long and prosper: Aging in East Asia and Pacific*, 2016.

World Bank, *World Bank and education in Indonesia*, September 1, 2014.

World Bank, *World Development Report 2012: Gender equality and development*, September 2011.

World Economic Forum, *The global gender gap report 2017*, November 2017.

World Values Survey Association, *World Values Survey wave 6 2010–2014 official aggregate*.

World Wide Web Foundation, *Women's rights online report card: Indonesia: Measuring progress, driving action*, Women's Rights Online Digital Gender Gap Audit, September 9, 2016.

World Wide Web Foundation, *Women's rights online* (<https://webfoundation.org/our-work/projects/womens-rights-online/>)

World Wide Web Foundation, *Women's rights online: Translating access into empowerment*, October 2015.

X

Xiao, Eva, *Chinese VC: We don't invest in female CEOs*, Tech in Asia, January 9, 2017.

Xiaodan, Xu, *Has the only child elderly-leave really come?* China Law Insight, King & Wood Mallesons, December 6, 2017.

Xiaonan, Wang, *1st tech incubator for Chinese women boosts 'She-Economy'*, All-China Women's Federation, December 15, 2015.

Y

Yang, Sadie, and Ao Li, "Legal protection against gender discrimination in the workplace in China", *Gender and Development*, volume 17, number 2, July 2009.

Yeoh, Brenda S. A., Shirlena Huang, and Joaquin Gonzalez III, "Migrant female domestic workers: Debating the economic, social and political impacts in Singapore", *International Migration Review*, volume 33, number 1, spring 1999.

Z

Zhaopin Limited, *Zhaopin report found China's working women less keen on childbearing*, press release, May 11, 2017.

Zheng, Wang, *Finding women in the state: A socialist feminist revolution in the People's Republic of China, 1949–1964*, University of California Press, 2016.

Zhou, Jinghao, "Keys to women's liberation in Communist China: An historical overview", *Journal of International Women's Studies*, volume 5, issue 1, November 2003.

Zhou, Su, *China plans to raise age of retirement*, The State Council of the People's Republic of China, March 1, 2016.

Ziwica, Kristine, *Did Australian business leaders just pledge not to violate the most basic equal pay principle, and we're happy about it?* Women's Agenda, August 28, 2017.

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