

WOMEN IN THE WORKFORCE

AN UNMET POTENTIAL IN ASIA AND THE PACIFIC



ASIAN DEVELOPMENT BANK

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FOREWORD

Enormous advances have been made in closing the education and health gap between females and males in Asia and the Pacific. Nonetheless, the average labor force participation rate of women around the globe has remained stubbornly constant over the last 25 years at just over 50% of the economically active female population. There has been some progress but still, women face a labor market that offers them lower wages and lower quality jobs than their male counterparts. These trends persist even in economies in Asia and the Pacific where the female labor force participation rate in 2014 was a high 53%—roughly the same as the DMC average, which in itself is a rate that masks significant variations across countries. This special report looks into the complex and varied causes behind this gap in economic empowerment between males and females across Asia and the Pacific, then analyzes the available evidence for its implications to economic growth.

This report shows that the low labor force participation of women is intimately related to how they allocate time between market and nonmarket activities. Indeed, in deciding whether to work outside of home, women of whatever education or socioeconomic status tend to put more weight on the need to care for their children and dependents. This choice is reinforced by social norms that emphasize domestic tasks as a woman's primary responsibility and, in some countries, also constrain women's social activities and mobility. In some places in Asia and the Pacific, these norms severely limit the possibility for women to achieve wage or income growth or to engage in productive entrepreneurial activities, or both. Thus, policy makers need to focus on the specific reasons behind the gender gap so they can develop and implement effective policies for improving female economic empowerment. This will go a long way in leveling the playing field between men and women as well as unleash a country's full potential for sustainable economic growth and prosperity.

This special report previews the initial findings of the ongoing research on gender issues initiated by the Asian Development Bank under TA8620: Economic Analysis for Gender and Development. The background study for this report was prepared by ADB's Economic Research and Regional Cooperation Department under the overall guidance of Director Cyn-Young Park, Economic Analysis and Operational Support Division. It was written by Valerie Mercer-Blackman and Sakiko Tanaka with assistance from Jasmin Sibal, Paulo Rodelio Halili, Lilibeth Poot, Maricor Muzones, and Ricasol Calaluan. The report benefited from background studies under the TA prepared by the teams from Evidence for Policy Design at Harvard Kennedy School (Rohini Pande, Deanna Ford, Erin Fletcher, Erica Field, Kate Vyborny, Simone Schaner, Lena Edlund, Smita Das, and Charity T. Moore) and Korea University (Jong-Wha Lee, Kwanho Shin, and Jinyoung Kim).

The report draws heavily from three key publications, namely the paper "Female Labor Force Participation in Asia: Constraints and Challenges" by Evidence for Policy Design at Harvard Kennedy School, 2015; the World Bank's World Development Report: Gender Equality and Development, 2012; and the World Economic Forum's Gender Gap Report, 2014. It benefitted greatly from inputs and comments by the following experts and colleagues: Shikha Jha, Akiko Terada-Hagiwara, Shanny Campbell, Natalie Chun, Sonomi Tanaka, and Francesco Tornieri. Special thanks are due to Carlos Llorin, Jr. for editorial assistance and to Michael Cortes for layout, cover design, and typesetting.

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HIGHLIGHTS

What does the evidence show?

- Women in Asia are on average 70% less likely than men to be in the labor force, with the country-to-country percentage varying anywhere from 3% to 80%. This gap persists despite economic growth, decreasing fertility rates, and increasing education.
- In the 2014 Gender Gap Index of the World Economic Forum, there is a very pronounced disparity between Asia and the other regions of the world. Asia has some of the highest as well as some of the lowest-ranked countries in the index, which measures the share of women with the same level of access to men on the economic, education enrollment, health and survival, and political empowerment fronts. In particular, the Philippines ranks 9th globally while Pakistan ranks 141st among 142 countries.
- Quantitative research demonstrates that increasing the presence of women in the workforce can have significant benefits for economic growth and welfare, but neither economic growth nor increasing education appears sufficient to pull women into the labor force.

What constrains Asian women from entering the labor force?

- Women face a labor market that offers them lower wages and lower quality jobs than those for their male counterparts, a disparity largely influenced by how women allocate their time between market and nonmarket activities.
- Results of a new simulation model suggest that closing the gender gap could generate a 30% increase in the per capita income of a hypothetical average Asian economy in one generation.
- Surveys suggest that, relative to men, women are often perceived to have lower skills for the labor market.
- In some countries, social norms that emphasize domestic work as the primary responsibility of women constitute a significant constraint to their social activities and mobility.

What can policy makers do?

- To improve female economic empowerment in Asia and the Pacific, policies in a particular country should focus on the specific reasons behind the gap in labor force participation between males and females.
- To attract more female talent to the labor force, policies should promote a more flexible and family-friendly workplace that allows equitable and efficient distribution of time among household members.
- In some countries in Asia, measures should be instituted to (i) increase the security and protection of female workers, (ii) provide them appropriate transportation alternatives to the workplace, and (iii) give greater focus on improving women's productivity in countries where lack of access to property and credit are key constraints and where the female labor force participation rate is very low.
- To encourage more women to seek and demand better workplace opportunities, policies such as those that explicitly promote skills-training for them should be instituted. This will ensure that more women are seen and heard in traditionally male-dominated jobs.

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ABBREVIATIONS

- ADB Asian Development Bank
- FLFP female labor force participation
- GDP gross domestic product
- Lao PDR Lao People's Democratic Republic
- LFPR labor force participation rate
- MLFP male labor force participation
- OECD Organisation for Economic Co-operation and Development
- PRC People's Republic of China
- WEF World Economic Forum



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INTRODUCTION AND GLOBAL OVERVIEW "People and their talents are two of the core drivers of sustainable, long-term economic growth. If half of these talents are underdeveloped or underutilized, the economy will never grow as it could. Multiple studies have shown that healthy and educated women are more likely to have healthier and more educated children, creating a positive, virtuous cycle for the broader population." (From the Global Gender Gap Report 2014)

A. Trends in Female Labor Force Participation: How Asia Fares Globally

The female labor force participation (FLFP) rate varies considerably across the globe, despite some clustering within regions (Figure 1). It is lowest in the Middle East and North Africa (26%) and in South Asia (35%) and highest in East Asia and Pacific (64%) and in Sub-Saharan Africa (61%).¹ However, despite large cross-regional differences, participation rates have converged over time as countries or regions that started with very low rates (primarily Latin America and the Middle East and North Africa) experienced large increases, while those with higher rates (primarily Europe and Central Asia and East Asia and Pacific) experienced small declines.

Differences are also stark across economies in Asia and the Pacific. According to a composite gender gap index, these economies score about average, but there is a wide disparity across economies (see Figure 2 and Appendix 1 for country-level details on the World Economic Forum's [WEF's] Gender Gap Index).² More specifically, the FLFP in Asia in 2013 ranged from 16% in Afghanistan to 79% in Cambodia. This range reflects not only the labor market opportunities that women have but also the influence of cultural norms. Figure 1 already hints at the outset that the relationship is nonlinear and dynamic between a country's per-capita income and the progress that women have achieved on this indicator relative to men.

The world average for the FLFP rate has been remarkably stable, despite some minor moves by subregions (Figure 3). The average global ratio has hovered around 50% for the last 25 years, going from 52% in 1990 to 50% in 2013. However, this average rate masks significant differences across countries and even across regions; ADB countries mostly conform with the overall global trend of the convergence of FLFP rates between women and men but there are some exceptions. Between 1990 and 2013, the FLFP rate of women fell in Vanuatu (18.8%), in Thailand (11.6%), and in the People's Republic of China (PRC) (8.7%), and to some extent, South Asia; moreover,





DMC = developing member countries, OECD = Organisation for Economic Co-operation and Development. Sources: International Labour Organization (2013); World Bank, World Development Indicators, accessed January 2015.



Figure 2. Global Gender Gap Index by Region, 2014: Global comparison shows wide dispersion in gender gap in economies of Asia and the Pacific

Notes: The Gender Gap Index compiled annually measures the gap of females relative to males on a composite of four subindices. The subindices measure economic participation and opportunity, educational attainment, health and survival, and political empowerment. Black cross markers correspond to regional averages weighted by population; regions are sorted by average score and weighted by population. Details on regional classifications are in Appendix 1.

Sources: World Economic Forum 2014; World Bank, World Development Indicators for population data (accessed January 2015).



Figure 3. Female Labor Force Participation by Region (% of female population aged 15+): Not much change over the last 25 years

Source: World Bank, World Development Indicators (accessed January 2015).

the gap between the labor force participation rate (LFPR) of women and men in these countries widened.³

The gap between male and female labor force participation has narrowed in some countries

due to remarkable progress in education and greater female employment in the tradable sectors. Indeed, the LFPR of women in technical and professional fields now exceeds that of men in 50% of the 142 countries surveyed by the WEF 2014 Gender Report (11 of these were ADB member countries in Asia). The combined effect of economic development, rising education among women, and declining fertility goes a long way in explaining progress in the participation of women in the labor markets over the past 25 years. Moreover, in many countries, greater trade openness and economic integration have led to significant growth of export-oriented sectors, with some (such as garments, electronics, and services) employing increasingly large numbers of women in recent decades.

Part of this overall phenomenon is due to a small decline in male participation rates (Figure 4). In the developed member countries of ADB in the region, FLFP rate has increased marginally, but those of males have declined somewhat, a development that is also evident in other high-income countries around the world as households increasingly make decisions based on comparative advantage of the adult members rather than on priors about gender roles.⁴ East Asia and South Asia have seen a fall in participation rates of both women and men. In the Pacific

islands where the economies have transitioned from primary activities to services, the male labor force participation (MLFP) rates have fallen, and this is also the case in other small islandeconomies in the Caribbean. Finally, the economic transition that occurred following the breakup of the Soviet Union had a large impact on FLFP and MLFP, although the rates have since recovered (see Box 1).

B. The Gap in Male-Female Work Opportunities: How it Relates to Economic Development

There is a U-shaped relationship between the female labor force participation and the level of economic development. As first noted by Goldin (1995), FLFP is high at earlier stages of development or when agriculture is important, then falls somewhat as greater household income allows some women to opt out of the labor market, and then rises again as societies become





FLFP = female labor force participation aged 15+, MLFP = male labor force participation aged 15+. Note: East Asia refers to People's Republic of China and Mongolia. Source: International Labour Organization 2014.

Box 1. How the economic transition following the breakup of the former Soviet Union impacted female labor force participation

The labor force participation rates of both men and women in countries in the former Soviet Union that are ADB members fell drastically with the collapse of the union, as the economic transition into a new system was preceded by a sharp drop in output. Following the transition out of socialism female labor force participation in these countries declined from (a relatively high) 56% in 1990 to 50% in 2008. The decline likely reflected institutional changes associated with the regime change, whereby participation in market work ceased to be a mandate for most women, and with the retrenchment of some support structures for working mothers, such as child care. In some other health and education indicators, however, the equality achieved in these former Soviet republics remained. In terms of participation in tertiary education and of the labor force participation rate in technical and professional fields, women far exceed men in these countries: in Armenia, for example, by 1.88 and 1.56 times, respectively. The overall labor force participation rate of women has recovered to 57% in 2013, just above the 1990 level of 56%. However, relative to men, the labor force participation rate of women is still wider than pre-1990: men's labor force participation rate was 76% in 2013 compared to 57% for women.

wealthier. The phenomenon becomes evident when comparing across countries and across time. Some studies show that the relationship holds even if the FLFP data are restricted to nonchildbearing women from ages 45 to 59. In other words, the U-shape is actually not a function of the fact that women tend to withdraw from the labor market during childbearing years.⁵

The increasing choices for women on whether to participate in the labor market as income rises determines the U-shaped relationship. Indeed, when considering how much they should work in the labor market, women take into greater account other household income and responsibilities more than men do. As household income rises and social protection programs develop, women can withdraw from the market in favor of household work and childcare. When other household income is low, the marginal benefit of additional income is very high and this may induce an addition to the labor supply even when wages are low. When other household income is high, there is a less pressing need for women to work to supplement the household budget, so the participation of women in the labor market gets reduced. This income effect illustrates one reason why we may see lower levels of FLFP in middle-income countries. Further changes in household labor supply as economies develop are theoretically dominated by a substitution effect:

as wages rise for women, the opportunity cost of staying home—either for leisure or for home production—increases, leading to increased female participation in the labor market. Lower fertility rates and higher education attainment levels also reinforce the push to participate in the labor markets.

As a result, the per-capita income of a country is not necessarily correlated to the gender gap in labor force participation. Figure 5 depicts the gap between the female to male labor force participation rates against the natural log of gross national income (GNI) per capita (in 2011 PPP US dollars). The fitted U-shape relationship across levels of economic development of countries is still evident, but it is much weaker than for the LFPR alone and shows much greater worldwide variation between economic development and the ratio of female-male labor force participation. Figure 6 shows that the ratio for economies in Asia and the Pacific ranges widely: in Afghanistan, the female-to-male labor force participation ratio is less than 20%, whereas in Lao People's Democratic Republic (PDR), the ratio is comfortably over 90%. Rich countries do not necessarily have smaller ratios; for instance, Japan's is only over 60%. This suggests that increasing national income will not necessarily propel women into the labor force, a finding that warrants focusing on more targeted policies to increase FLFP.



Figure 5. Female Labor Force Participation and GNI per capita Worldwide, 2012: As economies develop, women are able to choose their labor force participation

GNI = gross national income, Lao PDR = Lao People's Democratic Republic. Source: Human Development Index (UNDP 2014, http://hdr.undp.org).



Figure 6. Ratio of Female to Male Labor Force Participation in Economies in Asia and the Pacific, 2012: The best performers are not necessarily the wealthiest

Lao PDR = Lao People's Democratic Republic.

Source: United Nations Development Programme 2014.

The channel through which gender equality in the economic and social sphere can lead to greater economic growth has been identified in many studies across time, and within specific regions or even communities.⁶ Table 1 summarizes the empirical evidence on how gender equality can impact economic growth. In terms of the impact of education

Table 1. Gender Equality and Economic Growth: A Summary of Findings

Key Factor	Transmission Mechanism	Evidence
Human capital	More educated girls and women can undertake higher-value economic activity	Context-specific. Appears strongest in countries with an export-focused manufacturing base and few cultural barriers. Secondary and tertiary education particularly beneficial
	Greater control for women in the domestic sphere (household resources and family size) augments the human capital of the next generation	Women are more likely to spend household income on children. Large family size may not always adversely affect education; although there is strong evidence that the presence of preschool children has a detrimental impact on older siblings' education
	Greater access to family planning leads to declining fertility and a "demographic dividend"	Significant impact as long as other preconditions for growth are in place
	Better maternal health tends to increase the number of women who can participate in the labor force	Little evidence available on the effect on economic growth; more specific studies required
Competitive markets	Improving gender equality can make labor markets more competitive	Growing in importance over time. Inequality in employment often has a larger effect on growth than does inequality in education
	Increasing entrepreneurial opportunities for women increases the competitiveness of product markets	Well-documented evidence on legal barriers in some countries, but no empirical link to growth has been established
Physical capital	Greater investment is made possible by higher household savings rates through more female employment and through more equitable distribution of income	Evidence focused on semi-industrialized countries
	Rising gender equality may boost the profitability of investment	Small effect, as higher-skilled women raise productivity faster than wages go up, thus boosting rates of return
	Women make more productive investments than men	Mixed evidence. Women may focus on using profits to purchase household goods rather than reinvest in business, especially during childbearing years
Rule of law	Precise transmission mechanism unclear	Small but significant relationship between rising female political and workforce participation and lower levels of corruption
Infrastructure	Women and men prioritize different public goods. Precise transmission mechanism unclear	Unclear whether alternative priorities of women generate higher growth
Agricultural productivity	Discrimination means resources not allocated efficiently to household plots	Household income in Africa could increase by up to 25%; conditional upon cultural context
Macroeconomic stability	Female suffrage leads to different role of government in economic sphere	Limited evidence suggests that women prefer redistributive policies and possibly lower deficits. Link to growth not yet established

Source: Ward et al. 2010.

of women on economic growth, the evidence is very clear and positive. Better-educated mothers are able to provide their children better nutrition, longer years of schooling, and enhanced opportunities for academic achievement (World Bank 2012a). Other channels are more complex and site-specific. Various studies show how sociocultural norms, religion, customs, and family norms can limit the opportunities for women. When the potential of women is not limited by gender bias at home, in their communities, and in their workplaces, the socioeconomic benefits can be far-reaching and can even magnify the development impact beyond the economic gains. The next section considers in more detail why the economic gap between women and men in Asia persists across countries and time, and what the main underlying causes are. It discusses the observed differences between males and females in educational attainment, in business types of job and sector, in time allocation, and in ownership of capital and investment incentives as well as the reasons behind wage disparities. It also explains how, under some circumstances and without policy intervention, the systems of social norms tend to perpetuate these gaps rather than alleviate them. This sets the stage for the policy options that could be considered for some countries or regions.





female Α with average observable characteristics in Asia is less productive⁷ in market activities compared to an average male over the life cycle; however, she may be equally or more productive in an environment that levels the playing field. Various studies have shown that on average, women not only have less time throughout their lifetime for paid work (due to childbearing interruptions or others) but also start with less technical and vocational training compared to males on average, and engage in activities where wages are on average lower. Becoming an entrepreneur is more challenging to women than to men because women have less capital, whether in the form of less land or in lower quality land (in the case of agriculture), and less access to credit.8 Consequently, women cannot be as productive, and this low productivity trap can get perpetuated under certain circumstances. Each of these issues from the region's perspective is discussed in detail below.

A. Determinants of Women's Labor Force Participation

1. Closing the education and health gap between women and men

The education gap has narrowed rapidly in Asia despite flat and falling FLFP rates in some countries (Figure 7). Indeed, a substantial part of the increase in the FLFP rate has been due to more educated women entering the workforce. The recent closing of the education gap is a global phenomenon, and it has contributed to the observed narrowing in the gender wage gap. However, although some countries in Asia have had remarkable improvements in education and might have partly closed the gap in most levels of education, they have not necessarily seen a commensurate increase in FLFP.

The positive effects on growth by the narrowing of the education gender gaps arise



Figure 7. Ratio of Female Primary Enrollment by Income Level, 1980–2012: Astounding progress in closing the education gender gap around the world

^a All income levels.

Source: World Bank, World Development Indicators (accessed January 2015).

primarily from the impact of female education on fertility and on the creation of human capital for the next generation.9 First, studies have shown that historically, women have fared well during industrialization and development because capital is more complementary to women's labor input than to men's. Indeed, much of the growth in Asia has come from sectors such as garments and electronics, which require labor-intensive and predominantly femaleintensive¹⁰ assembly line jobs. Second, the increase in women's labor force participation has led to lower fertility rates because it induces women to substitute entry to the labor market" with child-rearing. Third, as women obtain a higher education and enter the workforce, they tend to delay the age of marriage and childbearing, a development that improves human capital outcomes for their children. Moreover, these come hand-in-hand with improvements in their children's health indicators, particularly immunization rates. Studies show that women who are more educated, and employed women in general, are more likely to use maternal health-care and prenatal health care services, thus reducing child mortality rates (Millennium Development Goal 4).¹² As we move to the digital age, however, it is not clear whether these trends will continue.

Progress in closing the wage gap in many countries eventually stalls regardless of the levels of formal education, despite the fact that increases in capital intensity that accompany economic development initially helped raise the relative wages of women. Women with basic skills (in factory work, for example) do not always have the opportunity to advance to managerial levels or acquire the necessary technical training to rise to more valueadded endeavors. The reasons for this may vary by country or activity. However, greater access and availability to technical and vocational education and training could help women develop their skills at all levels of education.

Although the acquisition of human capital may give women the opportunity to enter the workforce, there are not always good incentives for them to pursue a skilled job in some countries in Asia. In Pakistan and Indonesia, women with intermediate levels of education are less likely to work compared to women with low or high levels of education. In the People's Republic of China and in the Republic of Korea, women who are more educated are likely to exit the labor force over the lifecycle. This suggests that for some groups of women, there is a mismatch between their educational investments and the job opportunities available to them. It also explains why the FLFP rate remains stubbornly flat despite the almost complete closure of education gaps in many of these Asian countries.¹³

2. Women allocate their time differently from men

How women allocate their time is different from men, and this can be a key source of inequality between women's and men's participation in the labor force. At all levels of household income, women do the majority of housework and care, so they correspondingly spend less time in labor market work. In other words, they contribute to economic welfare through activities such as child-rearing and housework, tasks that are not accounted for in gross domestic product (GDP). Indeed, on average, women spend twice as much time on household work and four times more on childcare, thereby freeing up time for male household members to participate in the formal labor force.¹⁴

Women tend to have less time for labor market activities because they have less discretionary time and their own time is less predictable. Within any household, all members need to allocate a minimum amount of time to "survival"-related personal activities such as cooking, sleeping, fetching water, or ensuring a minimum amount of consumption. Only after these tasks are taken care of can time be devoted to other activities so-called "discretionary time". In general, both the availability of discretionary time and its amount and predictability affect the capacity of any individual to take on specific types of activities such as market activities. Studies show women have less discretionary time, which leads to less overall productivity in market activities. This can also feed into gender biases and wage discrimination. Figure 8 illustrates the difference in time allocation as well as where biases tend to feed into the life cycle, which leads to lower female productivity in market activities.¹⁵

Women also face short-term disruptions which can impact their labor force participation more than men. Women are more likely to stay home and care for a sick relative or child. Similarly, during the post-2007 recession, many countries that suffered a drop in output saw employment of women fall by considerably more than for men. Of course, repeated lapses during the working years can create employment disadvantages over the long-term.

Gender roles for dependent care, housework, and main-income-earner responsibilities are deeply entrenched around the world, particularly in Asia and the Middle East. In no country anywhere do women invest as many hours as men in market work over their lifetime. Convergence in housework and, in most cases, also in care work is driven primarily by a decline in hours devoted to these tasks by women, rather than an increase in hours in the case of men. Research also shows that marriage significantly increases the time devoted to housework for women but not for men.¹⁶

Flexibility in the workplace is important for female labor force participation, but in highincome countries, flexible work arrangements are often equated with part-time formal

Figure 8. How Time Allocation Affects Female Labor Market Income: Social norms reinforce a woman's time allocation and can perpetuate low wage outcomes



Note: Sociocultural norms, denoted in blue, impact time allocation. Source: Pande, Fletcher and Moore (2014).

employment. In Austria, Germany, Switzerland, and the United Kingdom, the percentage of women who work part time because of family responsibilities is quite high at above 40%. Therefore, while part-time work might allow women to combine employment with care, it could also trap them in lower-quality jobs because career-track and management jobs are rarely designed with reduced work-weeks in mind. Part-time work also gives less time for networking in professional jobs, and thus fewer possibilities for promotion.¹⁷

Nonmonetary demand-side factors also play an important role in FLFP. For example, a woman will be less willing to work for a given wage if the jobs available to her make it difficult to balance work with obligations at home (such as child care), or if she faces a low-quality work environment (e.g., due to biased attitudes towards women or entrenched social norms about gender roles in the workplace).

Finally, the location of jobs is also an important factor determining the level of

FLFP. For example, if jobs are concentrated in urban areas, high commuting costs may keep rural women at home and out of the labor market because it may be more difficult for women to travel. Security concerns and attitudes regarding the acceptability of women in public space may further constrain FLFP.¹⁸

The root of the problem is better illustrated by life-cycle modeling of Asian women's participation in the workplace. Recent lifecycle models and time-allocation models are able to capture a clear sense of the inefficient allocation of resources in the economy due to the existence of biases and the labor force gap. Using the average parameter values of a typical Asian economy, simulations were run to measure the long-term growth impact of time-allocation adjustments that will allow women to enter the labor force (Box 2). A simulation model that was applied to the Republic of Korea—a high-income country where the gender gap has retreated somewhat in recent years—suggests that reducing the dropout rate of women from labor force participation during their childbearing years

Box 2. A Generational Model of Gender and Economic Growth in Asia

The model stands on endogenous economic growth with human capital as the engine of growth (Becker, Murphy, and Tamura 1990; Ehrlich and Lui 1991). It explicitly considers the quality/quantity tradeoff in children (Becker and Lewis 1973) and treats gender bias in child education at home and discrimination in the labor market as the key sources of gender inequality in society. In other words, an overlapping generation (OLG) model of economic growth that endogenously accounts for women's time allocation between market and home production, which has been extended by adding the role of women in childbearing and child education. In this sense, the human capital investment by parents is the source of persistent economic growth. Through this model Kim, Lee and Shin (2014) investigate the interaction among women's labor force participation, fertility, and economic growth via human capital accumulation.

Set-up of the Home and Market Production Structure of the Hypothetical gender-biased Asian Economy.

- The economy produces two goods, a market good and a home good, at every period. The market good is produced by firms and can be consumed or saved. Every individual in this economy lives for three periods: childhood, adulthood, and retirement.
- Each one is endowed with one unit of time in childhood and adulthood, but no units of time in the period of retirement. The population produces equal amounts of males as of females. In adulthood, individuals participate in the labor market and receive wages, which constitute the only income to the family. A male adult allocates all his time between market production (i.e., working in the official labor market) and home production. A female adult allocates her time into home production, market production, child rearing, and child education.

continued

- The females spend time devoted to children in two spheres. More time is spent on child-rearing the more children she has, but it is assumed that the time spent on the education of sons is greater than that for daughters; this models the bias in parental preferences toward sons.
- Children's education is determined by three factors: children's time for schooling, mothers' time for education, and government expenditure on education. Children's education partially explains their human capital when they become adults, thus determining their productivity in the labor market
- The model also assumes that due to discrimination in the labor market, female workers receive a fraction of their marginal product.

Simulation results

In the balanced growth path, the growth of output per capita and capital stock per capita is equal to that of a mother's human capital. Hence, female education plays a critical role on persistent economic growth. The model is calibrated to fit its steady-state values to the observed values from the average values from East and South Asia for the period 2005–2010, as reported in the World Bank's World Development Indicators and the Barro-Lee (2013) data. According to the simulation results, in the hypothetical economy (dotted line), the female labor market participation rate becomes 66.2%, higher than the corresponding value of 57.7% in the benchmark economy (solid line). Note that in this framework, the rate of female labor force participation increases when gender bias in education and the labor market falls, but the gap with males still exists due to the females' allocation of time in child-rearing and education. Introducing the role of males for child care and education will promote a higher rate of the female labor force participation in the hypothetical economy.

The figure below demonstrates the transition path of per capita income in two economies. Per capita income in the hypothetical economy is estimated to be 30% higher after one generation and 71% higher after two generations, both owing to higher income and to the fact that more active female labor participation lowers fertility rate, resulting in a decline in the population growth rate.

These results indicate that, by eliminating gender inequality, the female labor force participation rate can increase by about 9 percentage points. Using the model, the authors analyze how gender-based policies affect female labor market participation rate and economic growth. To assess the impacts of gender-based policies, the authors conduct various policy experiments in the context of the above model. The policy that reduces discrimination in the labor market and encourages females to participate more actively in the labor market seems to be the most effective in increasing the growth rate of per capita output.





Note on figure: The benchmark economy (blue line) refers to the simulated per-capita output of a typical Asian economy over three generations in the model. The hypothetical economy (dotted red line) keeps all other values the same in the simulation of per-capita output, but assumes that parents spend equal amount of time in the education of girls and boys (b=0.5); that there is no discrimination in the labor market (d=1); and that intra-household bargaining leads to males spending the same amount of time in home production as women (f=1).

Sources: A Model of Gender Inequality and Economic Growth, by Jinyoung Kim, Jong-Wha Lee, and Kwanho Shin, ADB draft working paper, December 2014; Female Labor Force Participation in Asia: Challenges, by: Rohni Pande, Deanna Ford, and Erin. K Fletcher, ADB Manuscript, January 2015.

would generate significant economic gains. A similar model could be constructed in situations where the supply of female labor drops after secondary school (as in Pakistan) or after early mandatory retirement (as in the PRC).

3. The complex multidimensional issue of getting more women into the labor market

A woman's decision to work is a complex balance between valuing her opportunity cost and social cost against her potential wages. The wage rate itself is not the sole determinant of whether a woman should participate in the labor market. The left hand side of Figure 9 shows the woman's decision criteria of how much to work given the labor market opportunities available to her. A woman has a fixed amount of time and must allocate between such activities as labor market work, home production and leisure, so any changes in the allocation imply tradeoffs. For instance, if a woman decides to devote one extra hour working on the labor market, she must balance the returns to this activity (her wage) against the opportunity cost of foregone home production as well as any social costs that she or her family members would incur if she performed work outside the home.

The limited availability of labor market opportunities for a woman is another critical factor for her decision. These opportunities may be limited by a number of factors, such as gender-based discrimination in wage or hiring, the quality of the work environment (e.g., due to harassment or security), the location of available



Figure 9. A Model of Gender Labor Force Participation and Wage Determination: A complex multidimensional issue

HH = households, LFP = labor force participation. Source: Schaner and Das 2015. jobs and commuting costs, and whether or not available jobs allow a woman to balance work with obligations at home. This also restricts possibilities to migrate.

Moreover, wages offered in the marketplace may not be high enough to induce women to enter the labor market at the same rate as that of equally skilled men. This is particularly true where discrimination is present or where there are strong social norms of female responsibility for household production. Women consider other nonwage factors in their decision-making, so wage gaps may partially explain why FLFP rates are low among some educated women.

B. The Rise of Gender Wage Gaps: Female-Dominated Jobs and Sectors Tend to Command Lower Wages

There is abundant evidence across the globe showing that individual wages vary systematically with the gender composition

of occupations. Women earn one-half to twothirds of what men earn for the same work in some countries in Asia.¹⁹ These wage gaps are slightly diminished after controlling for education and age, but gaps persist nonetheless. For example, in Pakistan, female teachers in private schools in rural areas are paid 30% less than their male counterparts, and the difference persists even after individual and school characteristics are taken into account.

Asia. Globally and in evidence of "employment segregation by gender" is still **prevalent.** Across the globe, women are more likely than men to work in agriculture (37% of all employed women, against 33% of all employed men) and in services (47% of all employed women, against 40% of all employed men). The opposite is true for manufacturing. Women also are overrepresented among unpaid workers and in the informal sector. In Asia, women account for about 33% of the total workforce, but they account for 76% of all unpaid work, for 46% of wage employment, and for 43% of informal employment. This pattern is also true globally (Figure 10).20



Figure 10. Share of Women Employment by Status: Women are overrepresented in unpaid jobs

Source: International Labour Organization 2013.

Women are overrepresented among agricultural and unpaid workers at low gross domestic product (GDP) per capita, and likewise among unpaid and wage workers at medium GDP per capita. These trends remain the same as GDP per capita increases from medium to high. In richer countries, the incidence of unpaid work is very low; however, there is more part-time work for "typical female" jobs. As the service sector grows, many "female" tasks, such as childcare and food service are incorporated into the market economy. The affinity of many of these new service sector jobs to women's traditional domestic roles may exacerbate the existing gender division of labor into the sectorial and occupational spheres.²¹ Lack of information about women's performance arising from the limited presence of women in some economic sectors may reinforce low FLFP, especially when there are no compensatory measures that can foster experimentation and learning.

Occupational segregation may be driving some of the wage differentials. Conditional on working, men and women appear to be engaged in equally skilled occupations, but industry segregation is much more common. In Pakistan and Indonesia, self-employment and homebased work are common among women. Even within the formal markets, women may accept lower wages in return for the flexibility or the security this type of employment offers, but this flexibility itself may reduce the opportunities for promotion. Social stigma and norms (e.g., with respect to women's mobility or to what types of jobs are "appropriate" for women to do), seem to be especially important in Asia, where the roles of men and women in the home and in society are often sharply differentiated. The chosen employment sectors may come from the original decision to pursue particular academic subjects in school suitable to women according to social norms that reinforce gender stereotypes. This decision generally rules out science and math.

There is also some evidence that open economies have been able to close the wage gap more quickly. Wage discrimination has been reduced in manufacturing and other jobs connected to exports. This may be because the exposure to higher competition in international trade leads exporting firms, regardless of gender, to be less influenced by cultural norms and gender biases and more predisposed to boosting productivity. Exporting firms may also be subject to greater scrutiny by international labor unions regarding compliance and discrimination issues.²²

C. Major Factors That Discourage Women from Becoming Entrepreneurs

1. Women still outnumbered by men in business and entrepreneurship

Female representation in senior positions and in entrepreneurship remains low across the globe. For example, during the period from 2008–2012, the share of women among chief executive officers in Standard and Poor's 500 companies remained at 4%. In the 27 European Union countries, only 25% of business owners with employees are female. In 2012, only about 20% of national parliamentary seats across the world were held by women.²³ Moreover, the ratio of female to male legislators, senior officials, and managers in economies in Asia and the Pacific in 2014 was only 39%, although this is much higher than the global average of 27%.²⁴

Female entrepreneurs generally exhibit lower productivity than men across Asia, mainly because they have fewer productive inputs. Various country studies have found evidence to this effect.²⁵ In rural Bangladesh, Indonesia, and Sri Lanka, for example, there is a stark contrast in profitability between female-owned and maleowned businesses. The differences are largest in Bangladesh, where average output per worker was 8 times higher in firms operated by men than in those operated by women; they are smallest in Indonesia, where output per worker was 6% lower among female-owned firms. However, studies show that gender differences in productivity almost always disappear when access to physical and productive inputs is taken into account.²⁶

In developing countries, many women entrepreneurs are involved in the agricultural or informal sectors out of necessity. In surveys, women often cite the need to supplement household income as the main reason for going into entrepreneurship, whereas men cite the desire to exploit market opportunities.

Microlevel studies in OECD countries have found that at higher levels of education, companies with female directors perform better. However, there is not much evidence to show why having women in the boardroom helps; it appears that it suffices to have in the board even a small percentage of women, not necessarily a greater share. Which way the causality works is not clear; it is possible that firms that are more successful may have more resources to ensure higher diversity, in which case diversity may result from success and not the other way around.

In many countries, the lack of basic rights and security inhibits the potential of women to work for themselves or become entrepreneurs.

Restrictions on women's independent mobility and participation in market work curtail their economic potential in some emerging and developing economies. Social norms can influence views on women's presence in public spaces, on crimes against women, and on the perception itself of crimes against women. From the point of view of women, perceptions of safety can limit women's labor force participation, as women may choose not to participate out of fear. Moreover, in some countries, limits on mobility and security concerns inhibit the education and work opportunities available to women. In 2013 in Indonesia and Pakistan, a quarter of ever-married women (ages 15-49) believe that wife-beating is justified if a wife goes out without her husband's permission.²⁷

2. Women's investment is limited by less access to land, credit, and technology

On average, female-headed households are less likely than male-headed households to own and operate land. Even when women do have access to land, they suffer greater land-tenure insecurity, so they invest less. Inheritance and marital regimes as well as land titling regulations can sometimes add to gender disparities in land ownership and accumulation in developing countries, particularly where land registry systems do not function properly.

Inheritance laws and traditions also tend to disfavor women in land ownership, particularly where actual land inheritance follows cultural norms. For example, in some Hindu communities in Bangladesh, women do not inherit property at all.²⁸ In South Asia, there is sometimes a tendency for women not to claim their inheritance following cultural norms and a lack of knowledge of the processes.²⁹ Islamic laws allow for equal inheritance, but in Pakistan, for example, interfamily hierarchies make women inherit less land than their male siblings.³⁰ Although the writing of wills can help direct assets toward daughters, parental preferences shaped by prevailing norms may often discriminate against girls, as has been the case in Fiji and Cambodia, for example.³¹ Even with good laws, dysfunctional property registry systems generally result in unequal control of land in favor of men. In Vanuatu, for example, although the pluralist system does not directly discriminate against women, the operation of the system increasingly marginalizes women from decision-making processes for land management and control.32

Women are also disfavored in the crucial use of property as collateral when applying for productive loans. In many countries, land tenure acts as the main collateral to acquire business loans. However, despite great strides in microfinance in the rural sector, studies across the world still show that female-headed households in rural areas are less likely to have received credit in the last 12 months. In Indonesia, Viet Nam, and Nepal, in particular, the combination of small plots, insecure land rights, and binding credit constraint limits female farmers' ability to use agricultural inputs.³³

Gender differences lead to wide disparities in access to productive resources and market information. Among female farmers, for example, their lower levels of commercialization can discourage investments that could increase productivity of female plots—either directly through complementary productive inputs or indirectly through, say, time-saving investments and potentially increase access to markets as well. Some studies have looked at other developing countries in this regard, but better research is needed in Asia.

D. Causes of the Perpetuation of Women's Low Productivity

The World Development Report in 2012 suggested that without intervention, there is a danger that some of these persistent trends that lead to low female market productivity will be perpetuated across time and generations. If women are perceived as less productive today, there is less investment and desire to increase their productivity tomorrow, thus creating a "low-productivity trap." This may happen overall even when an individual female whose resources are equal to a male's may be as productive as he is. Indeed, after accounting for individual characteristics, differences in occupation and sector explain a large part of the differences in productivity.³⁴

Perpetuating low investment by females happens at various levels:

Parents may invest less in education of their daughters because they see the returns to female employment in labor markets as lower than the same investments in the education of their sons. This can also be reinforced by sociocultural norms about the role of women in society in some countries.³⁵ With less women working, the situation is perpetuated because there are not enough role models in the workplace.

In the People's Republic of China, recent evidence shows that the severe imbalance in birth rates of females to males may be due to various factors that could have an underlying economic rationale. In particular, the preference for bearing sons is not due to social or community biases but is in part based on the expectation that male income would be higher in the future. A recent study³⁶ looking at certain areas of post-Maoist PRC suggests that the "missing girls" phenomenon can be linked to preferences for bearing and rearing sons. The results show that increasing family agricultural income alone had no effect on male-female ratios. On the other hand, increasing female income while holding male income constant increases the survival rates for girls; increasing male income while holding female income constant decreases the survival rates for girls. Moreover, the study showed that increasing the mother's income increases educational attainment for all children, while increasing the father's income decreases educational attainment for girls and has no effect on boys' educational attainment. This shows that in Maoist PRC, gender discrimination is an economic phenomenon rather than a sociocultural one.

In turn, gender segregation in access to economic opportunities not only reinforces gender differences in time use and in access to inputs but also perpetuates market and institutional failures. For instance, women are more likely than men to work in jobs that offer flexible working arrangements, such as part-time or informal jobs, so that they can combine work with care responsibilities. But because part-time and informal jobs often pay lower (hourly) wages, it becomes more difficult for women to raise their living standards. It will also have implications for career progress, such as moving up the corporate ladder. Indeed, gender differences in productivity of paid and unpaid work strengthen existing incentives for specialization in housework and care-work as well as reinforce gender biases regarding time use. Low productivity of female businesses can be entrenched by limited access to productive inputs and credit and create an uneven playing field for women's economic participation.

In some countries, the low-productivity cycle can get perpetuated because women acquire less old-age income than men. If women are outside of the labor market for more years on average, and their average wages are lower, pension benefits will also tend to be lower, thus increasing their dependence on younger family members. Recent preliminary studies³⁷ show that while the expectation of old-age support matters for both men and women, it is a bigger challenge for women due to their more limited participation in the labor market and, hence, their more limited eligibility for pension benefits.

THE PERFORMANCE OF SELECTED ASIAN COUNTRIES IN WOMEN'S ECONOMIC EMPOWERMENT Many of the key economic issues facing women continue to be universal and persistent, although not all countries face the same degree of severity and circumstances. First, as already mentioned, it is not solely the level of a country's per-capita income that reflects its advancement on gender issues; and second, the nature of the problems, particularly those influenced by sociocultural norms, can vary considerably. Appendix 1 groups economies in Asia and the Pacific according to per capita income-low income, lower-middle income, higher-middle-income, and high income-and discusses how these country groups measure up relative to their global peers within the same country group. However, owing to so much heterogeneity even within income groups in Asia, no clear pattern emerges.

In terms of the economic empowerment of women, countries can nonetheless be roughly grouped by degree of their progress. The grouping is far from robust given the heterogeneity of the characteristics of economies in Asia and the Pacific, but it does bring forth the notion that the level of per capita income is not necessarily a good predictor of progress in gender issues. The grouping roughly corresponds to the ranking of the Global Gender Index of the WEF (2014). With the exception of Fiji, the other Pacific islandcountries did not take part in the WEF index, and they are thus not included here. Appendix 2 describes each individual country's performance on the Gender Gap Index in 2014, ranked by their outcome on the WEF Gender Gap index.

The key characteristic that is relevant to policy makers is the gap; in other words, the level of women's empowerment relative to men particularly on the economic front.

 Australia, Mongolia, New Zealand, the Philippines, and Singapore all have a high subindex score on economic participation and opportunity, labor force participation, educational attainment, and health and survival. The Philippine FLFP is enhanced by emigrant workers, many of them female. Singapore and Mongolia lack top scores in political empowerment.

- **PRC and Indonesia** both have high and growing FLFP rates supported by high rates of internal mobility and low fertility. However, owing to its systemic discrimination against daughters, the PRC ranks low in the health and survival index of gender equality. In Indonesia, its recent economic growth is allowing women—particularly educated women—to close the wage gap, but there are some issues related to social norms that still negatively impact the gender gap.
- Former Soviet Republics in Central Asia All of the Central Asian countries except Pakistan and Afghanistan have scores above sample average, with high FLFP and high scores on the education gab subindex. Countries of the former Soviet Union had a small drop in the FLFP rate since the 1990s.
- Lao PDR, Thailand, and Viet Nam These countries are middle-income in status and have some dynamic manufacturing sectors. Their respective health and education gaps have been closed for some time now.
- **Bangladesh and Sri Lanka** are still lowincome, largely agricultural countries, with high FLFP fueled by employment in rural agricultural areas and certain specific sectors such as garments in Bangladesh. They have also made huge advances in closing the gap in health and education.
- Brunei Darussalam, Fiji, Malaysia, and Maldives are mostly high middle-income countries, with high subindex scores in educational attainment, health and survival, and economic participation. However, they are not highly ranked in political empowerment due to (i) their lack of representation by women in ministerial positions, and (ii) their having had just a few female heads of state in the past 50 years.

- Japan and Republic of Korea are both high income countries but with relatively low FLFP, particularly over the life cycle. On average, women enter the labor force in their 20s and withdraw during marriage and child-rearing and then reenter in their late 30s.
- Bhutan and Nepal both have high FLFP rates. In Nepal, in particular, social norms can be quite different from region to region; in some places, discriminatory practices against women and girls are significant. Both countries post high scores in women's educational attainment and in the health and survival subindices relative to men, but their scores are low in political empowerment for women in public places.
- Afghanistan and Pakistan have very low FLFP owing to social, cultural, and religious norms as well as mobility restrictions.

Policy considerations for any given country will depend on the nature and severity of its gender gap problem. However it is important that appropriate policies should address many interrelated issues that cut across cultures and income groups. For example, increasing childcare options for working parents, raising access to technical and vocational education, reducing barriers to international trade and making job information more available are examples of initiatives that benefit both women and men. To be effective, every policy response should take into account the specifics of the country's history, culture, social norms, progress of socioeconomic development, and other relevant factors or conditions.

IV.

MAJOR POLICY OPTIONS AND INITIATIVES TO INCREASE FLFP AND PROMOTE ITS GROWTH Effective policy intervention is warranted in countries where the current system is perpetuating a large and possibly widening gender gap. As has been shown in the preceding discussions, less intervention is needed in many countries that have already made substantial progress in closing the gender gap or that continue to make fast progress in this area. Still, it must be recognized at the same time that a decision for women to work is a very complex one.

The following are some indicative policy options that can be considered in certain countries or regions within countries to encourage FLFP. In the discussion of each policy option, the background and experience of countries that have taken that option is presented for potential consideration by other countries.

A. Competition through Greater International Trade and Openness

The quality of the work environment was discussed in the earlier section as one of the determinants for a woman's decision to work. Policies that reduce trade barriers and promote export-oriented industries may allow women to find work with less discriminatory employers, or they may force employers to reduce wage and hiring discrimination to better compete in the global market.

There is strong evidence that FLFP will increase in developing countries that locate export-oriented firms with female-specific jobs. This is particularly true in areas where women have not been previously employed, such as manufacturing where wages may be high enough for women but not high enough to induce men to work in that sector. Indeed, exportoriented growth has resulted in the expansion of low-skill manufacturing jobs all over the world.³⁸ For example, the PRC's export-led growth has been partially fueled by increased FLFP, as the female employment share in the PRC is 13% higher in exporting firms.³⁹ In Brazil, states that implemented tariff reductions saw an increase in FLFP, but only after 2 years.⁴⁰ In Bangladesh, FLFP increased by up to 15 percentage points in villages that are close to where garment factories are located.⁴¹

Trade liberalization may reduce genderbased wage and hiring discrimination and, even if FLFP does not change, it may help increase female empowerment. Openness may also affect FLFP through price convergence. In Britain, the reduction in labor cost due to trade liberalization has been shown to account for 10% to 15% of the rise in its FLFP.⁴² In the PRC, due to competition among firms for better workers, gender-based wage discrimination is lower in export-oriented sectors than in nonexport sectors.⁴³

Some studies, however, suggest that openness may reduce FLFP under very specific conditions. The effects of openness may depend on overall levels of income, the time period, and the structure of the economy, but those effects may differ depending on the age cohort or on the country studied.⁴⁴ Some studies show that female-intensive sectors are also capitalintensive, and that when growth is in the femaleintensive sector, men move into the expanding sectors and tend to push women out.⁴⁵ Indeed, in some cases, competition among women and between male and female workers may also hold down women's wages.⁴⁶

Policies designed to ease the migration process could give women access to better jobs in other regions or countries, and possibly increase the ability of high-earning women to return to work following childbearing. Open borders for migration, like those in the Philippines, could also have significant effects on FLFP. There is robust literature on the effects of immigration on employment and wages in recipient countries. Opening up borders to immigrants may also allow women to pursue opportunities for work that are unavailable due to wage discrimination, to social norms about acceptable work, and to lack of growth in female-specific fields in their homeland. While the effects of migration on the households receiving remittances are not well studied, there is some evidence that higher income from remittances has only a small but negative effect on female labor supply.47 A study of the United states showed that higher inflows of immigrant workers are associated with increased likelihoods of women in the host country having a baby, and responses are strongest among women who are most likely to consider childcare costs when making fertility decisions-namely, married women and women with a graduate degree.⁴⁸ The women may also work longer hours which could help ease labor supply-side constraints, but may also reduce the time spent with their own children. The overall effects on women and children have not been studied extensively.

B. Skills and Vocational Training

Sector-specific skills and vocational training enable individuals of all genders to access new opportunities and transfer to a new occupation. As discussed in an earlier section, people who have undergone formal skills training are more likely to be in the labor force. This is because their hiring and retention require employees to have adequate gualifications. There is a U-shaped relationship between FLFP and education, where women with junior or senior secondary education are the least likely to work. This suggests that sufficiently attractive jobs may not be available for women with only junior or senior secondary education. The provision of complementary vocational training could thus help women compensate for their lack of higher education, provided that the training (i) is welltargeted, (ii) signals quality with positive branding and output, and (iii) enhances productivity for job retention.

Evidence suggests that women who have undergone training, in addition to formal education, can more easily get formal jobs. In Indonesia, in particular, women with skills training are more likely to be in waged jobs; a labor force survey reveals that women who attended senior vocational school are more likely to join wage jobs than women who attended senior regular school. While women in Indonesia who attended junior vocational school are less likely to join wage jobs than those who attended junior regular school, the former are more likely to be self-employed or generally decide to join the labor force.⁴⁹

Evidence from other developing countries shows that vocational training likewise improves female labor market outcomes. In Colombia, an impact evaluation of a program that provided 6 months of in-classroom and onthe-job training found that the program raised the probability of paid employment for women slightly but raised women's earnings by 20% at a relatively low cost.⁵⁰ In Indonesia, it was estimated that attending vocational school is associated with lower unemployment rates among women with low test scores.⁵¹

C. Employment Quotas for Women

Employment quotas could be an effective and necessary mechanism for encouraging gender equality in the workplace. The earlier section discussed social norms and women's perceptions towards work that may constrain women from deciding to join the labor force, particularly in some male-dominated sectors. To counteract these perceptions, encouraging the putting up of employment quotas could be used to create role models for particular jobs. Recent studies examining the Republic of Korea and Pakistan suggest that employment quotas based on gender can improve gender equality through increased FLFP.⁵² Employment quotas

can boost labor demand for female workers, thus making jobs more available. This strategy would be advisable in sectors or countries where persistently low levels of FLFP are perpetuated by social norms or discrimination. To encourage the initial entry of women, the quota level should be low enough and time-bound. In addition, electoral quotas could also be considered to enhance FLFP and promote female entrepreneurship. When properly designed, electoral quotas are known to raise direct female participation in politics in South Asia.

Quota policies can complement related policies. Expanding the use of female-specific quotas to other areas of government, and then linking gender quotas to loans and other multilateral assistance, may increase the pool of available jobs for women and also create stronger aspirations for work and education among younger women and girls. For example, the practice of some countries to institute quotas in the civil service could set a good example for the private sector. Other policies can substitute for quotas or complement them, such as those that enhance labor market flexibility, spur investment in infrastructure, and enhance social spending.

D. Information on Available Employment Resources and Job Matching

The provision of job-matching services may help overcome information constraints and increase employability and social networks for women. An earlier section discussed social norms such as reducing mobility restrictions as one of the significant factors that induce women to find job opportunities and to decide to join the labor market. Indeed, women often lack opportunities, but in many cases they are simply unaware of the opportunities available to them for work and the returns associated with that work. Job-matching services, aside from helping women bargain for better working conditions or wages, can also increase employability through skilling or career counseling. Since job-matching centers work with employers to cultivate relationships, this leads to further collaboration and hiring and serve as well to reduce information asymmetries. They can thus reduce unemployment for women and help women match with high-productivity jobs that generate higher returns.

There is evidence from other countries that job-matching services assist all individuals in finding work in a cost-efficient way. In the United States, an analysis based on data from a series of policy experiments on recipients of unemployment insurance showed that jobmatching services increased the individual's rate of transition to work in a cost-effective way.53 In France, job-matching services raised transitions to employment by about 5 percentage points in comparison to private job-search methods; this is according to a study that used data from a public employment agency in 1986.54 A 1996 review of studies in OECD countries⁵⁵ found that job assistance was the most effective and lowest-cost labor market policy reviewed. Costs may be lower now due to current technology, which increases the applicability of job-matching services to low-income countries where access to the Internet is low. However, depending on prevailing economic conditions, reducing jobsearching costs may have little effect on the incidence of possible mismatches between the expectations of jobseekers and the job openings that employers can offer them.⁵⁶

E. Mobility, Security, and Other Female-Specific Concerns

Limits on women's mobility inhibit both education and labor force participation for women. As already discussed, limited mobility is one of the critical constraints to women's deciding to work in some parts of Asia. The lack of safe, reliable transport may prevent women from joining the labor force or to work as much as they would like, as is the case in villages in Pakistan and Afghanistan and in other cities across Asia. Although establishing the causal effect of increased safety and mobility in improving FLFP is empirically challenging, hurdles to female mobility—be it transportation availability or social norms—are likely to adversely affect FLFP.

An important insight into the relationship between transport and FLFP has been obtained from a number of recent studies on social and economic issues not specifically focusing on women's labor force **participation.** Parents in Pakistan, particularly among the low-caste, are much less likely to send their girls to school if the school is located across caste boundaries within a village.57 The studies present qualitative evidence suggesting that security is a particular issue for girls, a result that has implications for FLFP in two ways. First, a direct implication, since these constraints on education would also affect women's options in the labor market later on. Second, as an indirect implication, similar barriers are likely to impact women's security and mobility when getting to work or when going to activities outside their home and immediate neighborhood. For example, many households in Pakistan are willing to nominate female members for vocational training, but transport to the trainings is an important constraint to doing so.58

Adequate and safe transportation options for women can help all members of the community. In Pakistan, putting female-specific transportation in place, or easing entry for women into sectors where working is acceptable, may constitute an important policy option for increasing FLFP. However, further research is needed to determine how effectively FLFP can be improved by large-scale efforts to improve transport infrastructure. Another path to increasing FLFP is the use of legal recourse to ensure that women have equal access to jobs and equal wages. There is a lack of consensus in the literature on whether laws should follow norms or attempt to change them. However, FLFP may be increased by instituting protections for women, by providing standards and by the possibility of legal recourse in cases in which opportunities or equal wages are denied.

F. Parental Leave, Child Care, and Flexible Work Arrangement Options

Increasing flexibility at work, such as those afforded by mandatory parental/maternity leave policies in many European countries, provide a means for improving work-life **balance.** They may help overcome constraints on women's time and child health.⁵⁹ As briefly discussed in the earlier section on women's time allocation, this aspect is directly improved when women are provided childcare, maternity leave, and flexible work arrangements, and indirectly improved when incentives are created for men to commit to share domestic responsibilities. Moreover, paid maternity leave may increase the length of breast-feeding; this improves infant health outcomes⁶⁰ and increases female job retention and tenure, thus also improving the likelihood of matching to higher paying jobs.⁶¹ Where public policy can decrease the costs of having children through childcare and parental leave without disincentivizing work, countries may enjoy both high FLFP and high total fertility rates.62

Female job retention and tenure seem to increase when parental leave is mandatory. European countries that offer longer mandatory leave and have a public provision for child care also had (i) more equitable distribution of domestic responsibilities across gender, and (ii) a smaller share of women not working or working part time due to care responsibilities.⁶³ In the Republic of Korea, it appears that policies targeting women with child-rearing needs rather than targeting homemakers were more effective at promoting labor force reentry.⁶⁴ However, if they are not fully publicly financed, mandatory maternity leaves could discourage employers from hiring women. To address the financial issues, the PRC provides social insurance-funded maternity leave, Indonesia and Pakistan require employer-funded mandatory maternity leave, and the PRC offers a mixed funding structure for it.

In some countries, the mandatory expansion of parental leave and child-care by law could potentially encourage a more equitable distribution of domestic responsibilities between males and females. Such policies could also encourage women to return to work. However, whether or how those family policies will work in other countries needs to be carefully considered, taking into account the fact that each country has different and complex issues for women to consider in their decision to be in labor market. The affordability of such family policies should be looked into as well.

Appendix 1. Performance by Income Group and Placement in the Gender Gap Index

Figure A1.1. Gender Gap Index in Economies in Asia and the Pacific by Income Group The gap between education and health is almost closing, in contrast with the still significant difference in political empowerment and economic access



Source: World Economic Forum 2014.

The above figures characterize subindices that comprise the Gender Gap Index of the World Economic Forum.¹ Each figure shows the global average for the corresponding income group as well as the average for economies in Asia and the Pacific.² While the gender gap in education and health has almost closed, this progress contrasts with the still significant difference in political and economic access.

¹ The Gender Gap Index itself only has four subindices, as the Labor Force participation gap is included in the economic subindex. Here, we have shown the LFPR as a separate index, and the remaining indicators that comprise the economic subindex have been grouped to create the new index.

² The only Pacific island country included is Fiji.

Low Income	Lower-Middle Income	Upper-Middle Income	High Income
(US\$1,035 or Less)	(US\$ 1,036-4,085)	(US\$4,086-12,615)	(US\$12,616 or more)
Bangladesh Tajikistan Cambodia Nepal	Philippines Mongolia Lao PDR Kyrgyz Republic Viet Nam Sri Lanka Georgia Indonesia Armenia Bhutan Pakistan	Kazakhstan Thailand China, People's Rep. of Azerbaijan Maldives Malaysia Fiji	Australia Singapore Brunei Darussalam Japan Korea, Rep. of New Zealand

Table A1.1. Income Group Classification

Note: Income classifications are taken from the World Bank. Source: World Economic Forum 2014.

Table A1.2. Structure of Global Gender Gap Index

Subindex	Variable
Economic Participation and Opportunity	 Wage equality between men and women for similar work (converted to female-over-male ratio) Ratio: female estimated earned income over male value Ratio: female legislators, senior officials and managers over male value Ratio: female professional and technical workers over male value
Labor Force Participation	Ratio: female labor force participation over male value
Educational Attainment	 Ratio: female literacy rate over male value Ratio: female net primary enrolment rate over male value Ratio: female net secondary enrolment rate over male value Ratio: female gross tertiary enrolment ratio over male value
Health and Survival	 Sex ratio at birth (converted to female-over-male ratio) Ratio: female healthy life expectancy over male value
Political Empowerment	 Ratio: females with seats in parliament over male value Ratio: females at ministerial level over male value Ratio: number of years of a female head of state (last 50 years) over male value

Source: World Economic Forum 2014.

The summary results by income group and subindex are explained below. Table A1.1 shows the countries included classified by income group and Table A1.2 defines each subindex.

Economic Participation and Opportunity subindex. Here the upper-middle income group takes a lead followed closely by high income countries. Because the averages are weighted by population size, the above sample average performance of the upper-middle income group is driven by the high scores of Thailand, the PRC, and Malaysia. The low subindex scores of Pakistan largely affected the poor performance of the lower-middle income group. For the high income group, the subindex scores of Japan and the Republic of Korea contributed to the lowering of the score in economic participation. This is because in both countries, there is a wide gap in estimated income among women and a lower number of women in professional and managerial positions.

Labor Force Participation subindex. In the PRC, the upper-middle income group scored the highest, supported by high rates of mobility and low fertility (Edlund 2015). In Azerbaijan, increased employment in low-wage sectors or self-employment work in agriculture in rural areas contributed to high participation among women (Onder 2013). Kazakhstan, with its high FLFP rate, also contributed to the overall group performance. Among high-income countries, FLFP is lower than the group average for Brunei Darussalam, Japan, and the Republic of Korea. In both Japan and the Republic of Korea, labor market participation among women has been lagging behind other developed economies due to massive exits from labor market after marriage. In these countries, the FLFP rate is M-shaped, characterized by high dropouts in late 20s and early 30s and then by reentry in late 30s due to women's heavy involvement in childrearing (Kim et al. 2014). In Brunei Darussalam, although the labor force participation among women increased considerably over the years-a development linked to easy access to and the low cost of childrearing services from neighboring countries like Indonesia and Philippines-it is considered relatively low compared to its counterparts in the high income group. Among low income countries, the high female-to-male labor force ratio of Cambodia and Nepal drives the group's high subindex score. The female labor force of both countries underwent dramatic changes in the past decade although most of their women are involved in agriculture and unpaid family work (Upadhyaya 2000, NIS and ILO 2010). Due to the low scores of highly populated Pakistan, the low-middle income group is trailing behind the other three. There is low FLFP outside the home due to mobility restrictions imposed by men, usually the husbands and fathers, reflecting cultural and religious norms; the situation

is aggravated by threat to safety and poor transport facilities (Field and Vyborny 2014).

Educational Attainment subindex. In this area, both the high-income and upper-middleincome groups have nearly closed the gap, followed closely by the low-income group; lower-middle-income countries are far behind. Among high-income countries, Australia and New Zealand have closed the gender gap in educational attainment. Brunei Darussalam is among the top-performing countries in tertiary education indicator, with more females than male enrolled in science, technology, engineering, and mathematics studies and also more female PhD graduates. Most countries belonging to the uppermiddle-income group posted very high scores on the educational attainment subindex. For the low-income group, Bangladesh is one of the topperforming countries from the region in primary and secondary enrollment indicators. Among the low-middle-income group, the Philippines has closed the educational attainment gap, followed closely in this respect by countries like Armenia, Mongolia, and Sri Lanka; however, the very low score of Pakistan contributed to the group's very low subindex score on education.

Political Empowerment subindex. The results show that low-income and lower-middle income countries are outdoing high-income and uppermiddle-income countries in terms of average scores by income group. Among the low-income group, Bangladesh posted the highest subindex score; this was brought about by a very high score in the indicator for "years with a female head of state;" the country has had 21 years with a female head of state in the past 50 years. Among the lowermiddle-income group, the Philippines posted high subindex scores in political empowerment; this is owing to this country having had the highest number of years with a female head of state in the last 50 years. The high-income group obtained a low subindex score in political empowerment due to Brunei Darussalam's low score, not having had a female head of state in the past 50 years.

The same is true for the upper-middle-income group, which scored the lowest in the political empowerment subindex because Azerbaijan, Malaysia, and Maldives have had no female head of state for the last 50 years.

Health and Survival subindex. All income groups have closed over 90% of the health gap. As the averages are weighted by population size, the PRC's poor performance in the upper-middle income group has driven the result of the group's weighted average.

Appendix 2. Individual Country Results by Global Ranking According to the Gender Gap Index⁶⁵







The Philippines is the only country in the Asia and Pacific region that placed in the top ten best-performing countries in the overall index. It is the only country in the region that closed the gap for both the education and health survival subindices, owing to its high female literacy and enrollment rate, survival rate, and life expectancy. In terms of women's economic advancement, the country has the highest percentage of firms with female participation in ownership as well as a high number of women in legislation and in senior or managerial positions; indeed, for 16 of the last 50 years, it was led by a female head of state. Improvement in women's labor force participation over the years contributed to the country's overall index score.

New Zealand has been part of the top ten bestperforming countries in the overall index prior to 2014. It has closed the gap in educational attainment with high female literacy and enrollment rates. Female labor force participation is also high, with a higher number of women holding top-level positions. In 1893, New Zealand became the first country where women were granted the right to vote.

Australia has seen an improvement in its overall index score owing to improvements in the economic participation and opportunity subindex as well as in the political empowerment subindex. It has closed the gender gap in educational attainment and in health and survival.



Mongolia ranks 10th in the economic participation and opportunity subindex. It has closed the gender gap in the health and survival subindex. It is also the second-best country overall on wage equality for similar work indicator and the highest ranking country from the region on the indicators for professional and technical workers and for health life expectancy.





Kazakhstan has closed the gender gap in the educational attainment subindex and in the health and survival subindex. It has a high female labor force participation rate. However, it scored low on the political empowerment subindex for not having had a female head of state in the past 50 years, and for having a low number of women holding parliament and ministerial positions. In terms of economic participation and opportunity, many women in Kazakhstan are employed as professional and technical workers.

Singapore scored high in the economic participation and opportunity subindex, and is closing the gap in estimated earned income and in high number of women working as legislators, senior officials, and managers. Female labor force participation is also high. It has almost closed the gap on the educational attainment subindex and health and survival subindex, as its female literacy and enrollment as well as its female healthy life expectancy are both high. It is also the country with the lowest fertility rate. However, it scored low in political empowerment owing to the low number of women in parliament and ministerial positions; it hasn't had a female head of state in the past 50 years.



Global average Country score

In Lao PDR, female participation in the labor force is high particularly in areas where subsistence farming is practiced. It also posted a high score in the educational attainment subindex and health and survival subindex, having high enrolment rates in primary and secondary school as well as high healthy-life expectancy. It scored low in the political empowerment subindex as it hasn't had a female head of state in the past 50 years and has a low number of women in parliament and ministerial positions.

Thailand has closed its health and survival gap and educational attainment gap. In economic participation and opportunity, it ranks 4th in wage equality for similar work indicator and has a high number of women working as professional and technical workers. Female labor force participation is high as women in Thailand continue to work even during marriage and while raising children (Wacharaporn 2008).



Kyrgyz Republic has almost closed the gender gap in the educational attainment subindex and health and survival subindex. It has a high literacy rate and high enrollment rates particularly in tertiary education. In economic participation and opportunity, it scored high in the indicator for having female professional and technical workers. As in most countries in Central Asia, its female labor force participation is also high.







Bangladesh, although it has experienced improvements in the overall score, still ranked low, falling below the global average in the economic participation and opportunity subindex due to its low performance on the indicators for having women as legislators, senior officials and managers and as professional and technical workers relative to men. In labor force participation among women, there has been an increase over the years that can be attributed to growth in the economy, which boosted the country's performance in the agriculture and manufacturing sector. The health and survival subindex score is low owing to low performance in the healthy-life expectancy indicator. The country is strong in political empowerment, having a very high score in the indicator for years with a female head of state.

Viet Nam has a very high score in labor force participation among women, with concentration in the agriculture and trade sectors. In economic participation and opportunity, the Vietnamese women rank high in representation in the professional and technical field and as legislators, senior officials, and managers relative to men.

In Sri Lanka, the level of education of females has improved rapidly. The country has the highest score in the educational attainment subindex among other South Asian countries. In education, it has achieved gender equality. However, the narrowing gender gap has not resulted in an increase in female labor force participation, with the score falling below other South Asian countries. The gender gap for health and survival in Sri Lanka has been closed with its high healthy-life expectancy. The number of women in parliament and ministerial positions is still low but this is offset by a high score in the indicator for years with a female head of state; it has had a female head of state for a total of 21 years over the past 50 years.



In Georgia, the growth of the economy during the past years has contributed to high economic participation and opportunity among women. This brought about an increase of women in the labor force, in top managerial and legislative positions, and in professional and technical work. The gender gap on education and health remains closed, with high scores in literacy, enrollment, and healthy-life expectancy among women.





In PRC, the high GDP growth rates have accompanied high and steady rates of female labor force participation. The increasing mobility of women along with low fertility has been the key to supplying the country's cheap labor. However, the gender gap in wage is substantial for the following reasons: (1) women earn only 63 % of what men earn, and (2) the human capital investment among women is lower as families prioritize education of sons over daughters and women are viewed as short term workers, therefore given less on-the-job trainings (Edlund 2015). The low ranking in gender equality in health and survival may be attributed to the systemic discrimination against daughters. In addition, Chinese women are underrepresented in the political realm, with a lower number of them in parliament and ministerial positions.

Azerbaijan's rapid economic growth in the past decade brought about improvements in the labor market. The female labor force participation increased, giving Azerbaijan the highest score in this subindex among the former Soviet Union countries. Although most of the growth in female employment has occurred in rural areas, the economic participation and opportunity score shows that women's position has improved, with a higher number of them in professional and technical work. However, the health and survival subindex score and that for political empowerment are among the lowest in the Central and West Asia region.



Indonesia experienced robust growth over the last 30 years, resulting in a decline in the total fertility rate and an increase in educational attainment among women. However, Indonesian women have remained moderately engaged in the labor market, with the female labor force participation rate lower than in the majority of the Southeast Asian countries. This can be attributed to a gender wage gap and gender-based discrimination in the labor market (Schaner and Das 2014-draft).





Brunei Darussalam is among the top performing countries in Southeast Asia in the economic participation and opportunity subindex, with the estimated women-men income being equal. The country has high enrolment rates in secondary and tertiary education, with the number of women in these levels exceeding that of men. However, it has a very low score in the healthy life-expectancy indicator. It also performed poorly in the political empowerment subindex as it has not had women in the parliament nor a female head of state in the past 50 years.

Tajikistan's labor market is characterized by a massive emigration of working population, predominantly among men. Women's labor force participation is high, and this can be attributed to the reduced participation among men and to women's access to education as evidenced by the high educational attainment subindex score.







Among the former Soviet Republics, Armenia received the lowest score in the economic participation and opportunity subindex and in the labor force participation subindex. It is also among those that received the lowest score in political empowerment, with females outnumbered by men in parliamentary and ministerial positions and having had no female head of state in the past 50 years. On the other hand, it has closed the gender gap in education and in health and survival with its high female literacy and high female enrollment at all education levels.

Among high-income and developed countries in Asia, Japan scored low in the economic participation and opportunity subindex due mainly to underrepresentation of women in legislative and managerial positions. In addition, Japan has the lowest percentage of women on boards of listed companies and is among the countries with the highest difference between female and male average minutes spent per day on unpaid work. Although educational attainment subindex score is high, enrollment in tertiary education among women is still lower than men. In terms of political empowerment, women in Japan are also underrepresented in the parliamentary and ministerial positions, with the country having had no female head of state in the past 50 years.

Women in Maldives, in contrast to their South Asian neighbors, enjoy access to education and health services at the same level as men. Enrollment in all levels of education is almost the same and even higher among females. However, participation in the labor force among women remains relatively low due to isolation and lack of access to resources and to gainful work opportunities (ADB 2007). Women also face challenges in participation in decision-making, and are underrepresented in parliament and ministerial positions.





Malaysia has the lowest female labor force participation among the countries in the Southeast Asian region. This may be attributed to rigid policies in workplaces, such as nonflexible work arrangements that disallow nurseries or breast-pumping facilities, and a culture of working late (Su-Lyn 2014). In terms of economic participation, women remain underrepresented in positions as legislators, senior officials, and managers, and there is a gender wage gap. Women are outnumbered by men in political positions such as in parliament and ministries, and no woman has ever headed the country in the past 50 years.

Cambodia is among the top performers in the Southeast Asian region in female labor force participation. Along with the economy's growth, the labor market improved and there was a substantial rise in literacy and enrollment rates. The gender gap is still evident though, with female enrollees lower in number in all education levels. With its high female life expectancy and sex ratio at birth, Cambodia has maintained its closed health and survival gender gap.



Nepal has the highest female labor force participation subindex score in the South Asian region. Being a predominantly agricultural society, the majority of its labor force is engaged in subsistence agriculture where women are mostly unpaid family workers. In education, the female literacy rate is still low even if enrollment rates in primary and secondary education among females exceed that of males. Women are also engaging in politics and public office; 33% of seats in the parliament are reserved for women, but there has not been a female head of state in the past 50 years.







Republic of Korea's rapid industrialization and development in the past 50 years have brought about substantial progress in gender equality, particularly in providing opportunities for women in education and employment. The narrowing gender gap is evident in the higher enrolment rates in all levels of education and the presence of women in professional and technical work. However, there is still a wide gender gap in labor force participation. Republic of Korea's female labor force participation lags behind other East Asian countries. The labor force participation of women shows an M-shaped pattern due to a significant drop in participation of women in their 30s owing to marriage and child rearing.

Bhutan underwent a major socioeconomic transformation over the past decades. Along with this, significant progress has been made towards achieving gender equality: higher enrolment rates of females in primary and secondary schools, high healthy-life expectancy, and higher labor force participation among women. Bhutan's labor force participation is one of the highest in South Asia; however, women are employed in low-paying agricultural jobs, and those employed in nonagricultural jobs earn significantly less than men do. Women are also underrepresented in parliamentary and ministerial positions.

Fiji has achieved gender equality in health and in education with its high performance in these two subindices. However, labor force participation among women is still low owing to few employment opportunities. The higher educational attainment among women has not translated into bigger workforce participation, as shown by fewer women in professional and technical work and in public office.



Pakistan occupies the last place in the regional ranking. The levels of education, healthcare, and political representation among women are very low. Female labor force participation is the lowest in the region as women are constrained from leaving at home due to mobility restrictions, issues on safety, and poor transport facilities.

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^{*} ADB recognizes "China" as the People's Republic of China.

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ENDNOTES

- ¹ Figures are from the International Labour Organization (www. ilo.org). The labor force participation rate statistics are not strictly comparable across countries. Part of the difference may be due to measurement or definitions of "work" used by various labor force survey instruments, including the way in which informality or the informal sector is incorporated.
- ² Figures are from the International Labour Organization (www. ilo.org). The labor force participation rate statistics are not strictly comparable across countries. Part of the difference may be due to measurement or definitions of "work" used by various labor force survey instruments, as well as the difficulty of capturing the degree of informality of many jobs.
- ³ The female LFPR during the 1990-2013 period also fell sharply in Timor-Leste (19.9%), Samoa (16.3%) and Armenia (5.8%); however, male LFPR also fell significantly, sometimes by more, suggesting that in these countries the fall was the result of other economic factors not directly related to gender.
- ⁴ See World Development Report Box Figure 5.1. Note that if the participation rates are calculated using the 15 to 64-year age group, the female LFPR in developed-member countries increases by 7 percentage points between 1990 and 2013, whereas the male LFPR during the same period remains constant. This largely reflects the demographic transition in Japan where the population aged 15 to 64 fell by 8% during that period.
- ⁵ See World Bank 2012a, 2012b.
- ⁶ See Ward et.al. 2010.
- ⁷ Labor productivity here is defined as the "measured" perworker output as accounted for in the market activities of gross domestic product.
- ⁸ See World Bank 2012a Chapter 5.
- E.g., Galor and Weil 1996; Lagerlof 2003; Guiso, Sapienza, and Zingales 2003
- ¹⁰ See Galor and Weil (1996), Blackden and Banu (1999). Lamanna (2009) finds that gender gaps in education and employment significantly reduce economic growth. The combined costs of education and employment gaps in Middle East and North Africa and South Asia amount respectively to 0.9–1.7 and 0.1–1.6 percentage point differences in growth compared to East Asia.

- " This is consistent with research showing the negative impact of gender inequality on economic growth when women's ability to accumulate human and physical capital is limited (Blackden and Banu 1999). Using cross country panel regressions over the 1960–1980 period, Klasen and Lamanna (2009) find that gender gaps in education and employment significantly reduce economic growth. The combined costs of education and employment gaps in Middle East and North Africa and South Asia amount respectively to 0.9-1.7 and 0.1-1.6 percentage point differences in growth compared to East Asia. Not surprisingly, various papers written around the turn of the century all find that gender gaps in education have a negative impact on subsequent economic growth King and Hill (1993), Knowles et al. (2002), Forbes (2000), Yamarik and Ghosh (2003), Appiak and McMahon (2002) and Klasen (2002)
- ¹² It is estimated that under-five mortality rates could be 15 per 1,000 higher on average in countries that fail to reach their Millennium Development Goal 2 target related to gender disparities. This MDG goal aims to eliminate gender disparities in primary and secondary education, preferably by 2005, and in all levels of education no later than 2015 (Abu-Ghaida and Klasen 2004).
- ¹³ See Evidence for Policy Design 2015.
- ¹⁴ See Duflo 2012.
- ¹⁵ See World Development Report Chapter 5, pages 215. In particular, Box 5.8.1 shows the results of a survey about time allocation and its perceptions by women and men.
- ¹⁶ Evidence for Policy Design 2015.
- 17 IMF 2013.
- ¹⁸ Evidence for Policy Design 2015
- ¹⁹ WEF 2014.
- ²⁰ ILO 2013.
- ²¹ World Bank (2012a) shows that economic development across the world is positively correlated with the share of female workers in wage employment and negatively correlated with the share of women in unpaid work, self-employment and entrepreneurship.

- ²² Chen et al. (2013) show that taste-based wage discrimination is lower in export-oriented sectors than nonexport sectors in the People's Republic of China., due to competition for better workers. Their findings echo each other's work on the US by Black and Brainerd (2004). Several papers show that gender wage equality in Mexico improved even as FLFP rose under NAFTA, suggesting increased demand for female labor (Juhn, Uchelhyi and Villegas-Sanchez 2013; Aguayo-Tellez 2010). Less well-identified, cross-country research shows that despite increases in FLFP associated with economic integration, other measures of female empowerment are not necessarily correlated (e.g., Bussmann 2009).
- ²³ IMF 2013.
- ²⁴ World Economic Forum (2014)
- ²⁵ IMF 2013.
- ²⁶ World Bank 2012, Chapter 5.
- ²⁷ Evidence for Policy Design 2015
- ²⁸ Shah I Mobin Jinnah, "Land and Property Rights of Rural Women in Bangladesh" Organization name: Community Development Association (CDA), January 2013.
- ²⁹ The Economist http://www.economist.com/blogs/banyan/2013/08/womenand-property-rights
- ³⁰ Shagufta Omar, 2011, 'A Woman's Right to Inheritance: Shariah and Pakistan's Law' Dawah Centre for Women, Dawah Academy International Islamic University Islamabad, Pakistan, November 2011.
- ³¹ WDR 2012, chapter 8 page 337.
- ³² Vijaya Nagarajan and Therese MacDermott, 2013 "Empowering Women Through Recognition of Rights to Land: Mechanisms to Strengthen Women's Rights in Vanuatu, Pacific Affairs, Volume 86 No, 3 September 2013.
- ³³ WDR 2012, page 304.
- ³⁴ Many of these studies are cited in World Bank (Chapter 5).
- ³⁵ Fernandez 2010.
- ³⁶ Quah 2007.
- ³⁷ See Kempson (2015) and Yoong (2015)
- ³⁸ Mammen and Paxson 2000.

- ³⁹ Chen et al. 2013; Edlund 2014.
- ⁴⁰ Gaddis and Pieters 2012.
- ⁴¹ Heath and Mobarak 2014.
- ⁴² Cavalcanti and Tavares 2008.
- ⁴³ Chen et al. 2013.
- ⁴⁴ E.g., Cooray, Gaddis and Wacker 2012.
- ⁴⁵ Suaré and Zoabi 2014.
- ⁴⁶ Seguino, 2000; 2005.
- ⁴⁷ Amuedo-Dorantes and Pozo 2006.
- ⁴⁸ Furtado 2014.
 - ⁴⁹ Schaner and Das 2014.
 - ⁵⁰ Attanasio 2011.
 - ⁵¹ Newhouse et al. 2011.
 - ⁵² Pande, Fletcher, Moore 2014.
 - 53 Meyer 1995.
 - 54 Fougere 2005.
 - 55 Fay 1996.
 - ⁵⁶ Groh et al., 2014.
 - ⁵⁷ Jacoby et al., 2011.
 - ⁵⁸ Cheema et al., 2012.
 - ⁵⁹ See for example a recent Rutgers University study which shows that states that adopted more generous family leave in the United States have healthier and more productive working women.

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- 60 Ruhm 2000; Tanaka 2005.
- ⁶¹ Waldfogel 1998.
- ⁶² Sundström & Stafford 1992.
- 63 Bettio 1996.
- ⁶⁴ Kim 2014.
- ⁶⁵ The source for the country figures, ranked by their composite score in the gender gap index, comes from the World Economic Forum 2014. This is one of many gender gap indicators. The FLFP is generally included in the Economic subindex. Afghanistan; Hong Kong, China; and the Pacific Island countries (with the exception of Fiji) were not included in the 2014 report.

Women in the Workforce An Unmet Potential in Asia and the Pacific

Despite economic growth, decreasing fertility rates, and rising education levels, women in Asia are on average 70% less likely than men to be in the labor force, with the country-to-country percentage varying anywhere from 3% to 80%. Results of a new simulation model suggest that closing the gender gap could generate a 30% increase in the per capita income of a hypothetical average Asian economy in one generation. This report discusses the reasons behind the continuing gap in the labor force participation rate between women and men in Asia and the Pacific, the impact of this gap on economic growth, and policy lessons drawn from specific country experiences in the region and elsewhere in the world. The channels of gender inequality are so complex that policy interventions must go beyond economics to effectively address them. Such a multidimensional approach to reducing gender inequality could unleash a nation's full potential for inclusive growth and development.

About the Asian Development Bank

ADB's vision is an Asia and Pacific region free of poverty. Its mission is to help its developing member countries reduce poverty and improve the quality of life of their people. Despite the region's many successes, it remains home to the majority of the world's poor. ADB is committed to reducing poverty through inclusive economic growth, environmentally sustainable growth, and regional integration.

Based in Manila, ADB is owned by 67 members, including 48 from the region. Its main instruments for helping its developing member countries are policy dialogue, loans, equity investments, guarantees, grants, and technical assistance.



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