IMPACT OF GENDER INEQUALITY ON LONG-TERM ECONOMIC GROWTH IN MONGOLIA

Tsolmon Begzsuren, Bumchimeg Gungaa, and Declan Magee

ADB EAST ASIA WORKING PAPER SERIES

NO. 56
December 2022
Impact of Gender Inequality on Long-Term Economic Growth in Mongolia

Tsolmon Begzsuren, Bumchimeg Gungaa, and Declan Magee

No. 56 | December 2022

Tsolmon Begzsuren is a social development specialist (gender and development) at the East Asia Department of the Asian Development Bank. Bumchimeg Gungaa is a senior economics consultant. Declan Magee is a principal economist at the Sustainable Development and Climate Change Department of the Asian Development Bank.
The ADB East Asia Working Paper Series is a forum for stimulating discussion and eliciting feedback on ongoing and recently completed research and policy studies undertaken by the East Asia Department of the Asian Development Bank (ADB) staff, consultants, or resource persons. The series deals with key economic and development problems, as well as conceptual, analytical, or methodological issues relating to project or program economic analysis, and statistical data and measurement. The series aims to enhance the knowledge on Asia's development and policy challenges; strengthen analytical rigor and quality of ADB's country partnership strategies, and its subregional and country operations; and improve the quality and availability of statistical data and development indicators for monitoring development effectiveness.

The ADB East Asia Working Paper Series is a quick-disseminating, informal publication whose titles could subsequently be revised for publication as articles in professional journals or chapters in books. The series is maintained by the East Asia Department.
CONTENTS

TABLES AND FIGURES iv
 ACKNOWLEDGMENTS v
 ABBREVIATIONS vi
 GLOSSARY vii
 ABSTRACT viii

I. INTRODUCTION 1

II. FEMALE LABOR FORCE PARTICIPATION IN MONGOLIA 2
   A. Women’s Educational Attainment 2
   B. Labor Force Participation Trends for the Last 2 Decades 4
   C. Women’s Employment and Key Constraints 5

III. THE MODEL 13
   A. Model Structure 13
   B. Model Calibration 14
   C. Model Results 15

IV. FOSTERING WOMEN’S LABOR FORCE PARTICIPATION:
    INTERNATIONAL PERSPECTIVES 16
   A. Advancing Gender Equality in the Workplace 16
   B. Advancing Gender Equality at Home 17

V. CONCLUSIONS AND POLICY RECOMMENDATIONS 18
   A. Enabling Environment 19
   B. Economic Measures 19
   C. Social Norms and Childcare: Investing in the Care Economy and Care Infrastructure 21

REFERENCES 22

APPENDIX: PARAMETERS USED IN MODEL ESTIMATION 26
TABLES AND FIGURES

TABLES
1  Time Spent on Childcare, Minutes per Day, by Gender  15
A.1  Calibrated Parameters  26
A.2  Steady-State Solutions  27

FIGURES
1  Education Level, by Gender  3
2  Labor Force Participation Rate, by Education Level  3
3  Labor Force Participation Rate of Women and Men, 1999–2019  5
4  Labor Force Participation Rate, by Age Group, 2019  5
5  Employment Status, by Job Category and Gender  6
6  Employment by Economic Activity, Sector Classification, and Gender  6
7  Paid and Unpaid Work, by Gender  10
8  Intra-Household Responsibilities, by Gender  10
ACKNOWLEDGMENTS

The authors are grateful to peer reviewers Keiko Nowacka, senior social development specialist, Gender Equality Thematic Group, Sustainable Development and Climate Change Department (SDTC-GEN); and Aiko Kikkawa Takenaka, economist, Economic Research and Regional Cooperation Department (ERCD) for their helpful comments and insights. The authors are also grateful to Fahad Khan from ERCD for his guidance and support. The authors appreciate the guidance provided by M. Teresa Kho, director general, EARD; Samantha Hung, chief, SDTC-GEN; and Pavit Ramachandran, country director, Mongolia Resident Mission. The authors are also grateful to Todgerel Sodbaatar, head of the Social Statistics Department in the National Statistical Office of Mongolia, for her help in preparing appropriate statistics for the study. Finally, the authors are grateful to Bold Sandagdorj of the Mongolia Resident Mission for his views and guidance in the preparation of this working paper.
<table>
<thead>
<tr>
<th>Abbreviation</th>
<th>Full Form</th>
</tr>
</thead>
<tbody>
<tr>
<td>ADB</td>
<td>Asian Development Bank</td>
</tr>
<tr>
<td>COVID-19</td>
<td>coronavirus disease</td>
</tr>
<tr>
<td>GDP</td>
<td>gross domestic product</td>
</tr>
<tr>
<td>LFPR</td>
<td>labor force participation rate</td>
</tr>
<tr>
<td>NSO</td>
<td>National Statistical Office</td>
</tr>
<tr>
<td>OECD</td>
<td>Organisation for Economic Co-operation and Development</td>
</tr>
<tr>
<td>ROK</td>
<td>Republic of Korea</td>
</tr>
<tr>
<td>TUS</td>
<td>Time Use Survey</td>
</tr>
</tbody>
</table>
gender-based violence  Acts of physical, mental, or social abuse (including sexual violence) that is attempted or threatened, with some type of force (such as violence, threats, coercion, manipulation, deception, cultural expectations, weapons, or economic circumstances) and is directed against a person because of his or her gender roles and expectations in a society or culture. Forms of gender-based violence include sexual violence, sexual abuse, sexual harassment, sexual exploitation, early marriage or forced marriage, gender discrimination, denial (such as education, food, freedom), and female genital mutilation.¹

ger  Traditional dwelling of Mongolians.

herders  People whose main activity is animal husbandry and earn livelihoods from animal productivity throughout four seasons of the year.

¹ UN Women. 2013. The costs of the violence. Thailand.
The participation of women in the labor force is an important social and development goal. This working paper shows that it is also crucial for a country’s economic prospects. Only 53.4% of working-age women in Mongolia participate in the labor force compared to 68.3% for men, and women dominate unpaid work. Asian Development Bank estimates show that eliminating gender inequality in Mongolia could increase the female labor force participation rate to 63.2%, which would boost Mongolia’s annual per capita growth rate by 0.5 percentage points. The experiences of other countries show that the female labor force participation rate increases when the time spent on unpaid care work is reduced and shared more equally with men, and when workplace practices and norms are more compatible with gender equality and family-friendly cultures. Government policies that promote increased participation of fathers in child-rearing and promote gender equality in the labor market can boost the female labor force participation rate. Increasing the labor force participation rate has high economic returns and should be prioritized by policy makers in Mongolia. This working paper provides a set of recommendations to boost female labor force participation in the country.

**Keywords:** female labor force participation, economic growth, gender equality, Mongolia, labor market, unpaid care work, time use

---

2 In 2020, labor force participation fell further to 50.0% for women against 65.1% for men. This working paper continues to use and refer to 2019 labor force participation as this was the data used in the model for alignment with the 2019 Time Use Survey.
I. INTRODUCTION

The participation of women in the labor force is an important social and development goal and is also crucial for a country's economic prospects. Removing barriers faced by women in the labor market can substantially increase productivity and economic performance. Nevertheless, female participation in the labor market in developing Asia remains low, with about 49% of working-age women participating in the labor force compared to 80% of men. Before the coronavirus disease (COVID-19) pandemic, this gender gap in labor force participation was increasing across Asia and the Pacific—the only region where this is the case. It is expected that the pandemic has made this worse with the additional burdens placed on households, mostly falling on women's shoulders. In Mongolia, the female labor force participation rate (LFPR) has fallen by 10.7 percentage points since 1999. This is in contrast to men, whose participation has remained largely stable, falling only by a single percentage point. This declining female LFPR drags down the country's overall LFPR, dampening development potential and economic growth.

Women in Mongolia suffer from a “double burden” that constrains their labor market participation and affects their perceived ability to undertake high-skilled jobs. Lower labor market participation for women is primarily explained by their disproportionate responsibility for unpaid domestic and care work, gender segregation in higher-paid occupations, the earlier retirement age for women, as well as deeply rooted social norms and gender stereotypes. Working women spend approximately three times more on caregiving duties and household chores than working men, and account for 75.9% of non-paid work in family-owned businesses. Despite having higher educational attainment than men, Mongolian women are less likely to be active in the labor market and earn less than men on average. As of 2019, the LFPR of women with master- or bachelor-level degrees is 17.1 and 16.8 percentage points lower than for men, respectively, and the national average monthly wage is 19.7% higher for men than for women.

Both male and female LFPRs have fallen since the outbreak of COVID-19. Entering 2021, female LFPR fell by 3.2 percentage points to 50.0%, and male LFPR fell by 3.9 percentage points to 65.1%. Women dominate employment in trade, services, and hospitality sectors, all of which have been deeply impacted by COVID-19. Unpaid care work for women has increased due to the closure of schools and kindergartens and heightened care needs for the elderly due to overwhelmed health services. Evidence also suggests that women have been disproportionately affected by COVID-19 in other ways. Police records show an increase of 15.5% in reported domestic violence cases nationwide in 2020 compared to 2019. Most cases included physical violence, and women constituted 92% of the victims.

The issue of the role of women in the economy is not unique to Mongolia and has been debated extensively globally. There are several estimates on the impact of closing the gender gap on economic growth. The main transmission channel for a smaller gender gap impacting economic growth is through increased the labor force participation of women (Kochhar, Jain-Chandra, and Newiak 2017; Ostry et al. 2018; and Kim, Lee, and Shin 2016). The McKinsey Global Institute projects that a “full-potential” scenario where female participation is equal to male participation would add $28 trillion, or 26%, to annual global gross domestic product (GDP) in 2025.

---

Agénor (2012) developed an overlapping generations economic growth model that accounts endogenously for women's time allocation for home production, child-rearing, and market work. The model also accounts for bargaining between spouses, gender bias in the workplace, and the allocation of parental time to daughters and sons. Kim, Lee, and Shin (2016) estimated models based on Agénor (2012) to estimate the impact of gender inequality on economic growth and developed a calibrated model using micro-level data from Asian economies. Their analysis shows that achieving gender equality can contribute significantly to economic growth by changing women’s time allocation and promoting human capital accumulation. They found that if gender inequality is completely removed at home and in the workplace, aggregate income will be about 6.6% higher than the benchmark after one generation, while per capita income will be 30.6% higher.\textsuperscript{7
}

Using data from the Republic of Korea (ROK), Kim, Lee, and Shin found that policies that lower gender discrimination in the labor market or increase the time spent by a father on child-rearing can positively contribute to female labor market participation and per capita income growth.\textsuperscript{8
} Their analysis shows that when there is no inequality between men and women at home or in the labor market, the female LFPR increases from 54.4% to 67.5%, and the annual per capita income growth rises from 3.6% to 4.1% on average for 30 years.\textsuperscript{9
}

The model we are presenting in this working paper builds on a model presented by Kim, Lee, and Shin (2016a, 2016b). It accounts endogenously for the allocation of women’s time between home production, child-rearing, and market work, and then analyzes how gender inequality at home and in the labor market affects female labor force participation and economic growth. We calibrated the model to fit its steady-state values to the observed values from Mongolia and conducted simulations to quantitatively measure the opportunity cost of gender inequality in terms of foregone output.

This working paper proceeds as follows: Chapter II describes the factors constraining female labor force participation in Mongolia; Chapter III describes the model and the results; in Chapter IV, we share international good practices of increasing women’s labor force participation; and Chapter V provides a set of practical and contextualized policy recommendations to increase female labor force participation.

\section*{II. FEMALE LABOR FORCE PARTICIPATION IN MONGOLIA}

\subsection*{A. Women’s Educational Attainment}

Mongolian women are less active than men in the labor market despite having higher educational attainment. The proportion of women in the population with secondary, vocational, and tertiary
education is 0.8, 0.5, and 6.7 percentage points higher than for men (Figure 1). However, women’s LFPR is lower than that of men at all levels of education with the exception of those with doctoral degrees (Figure 2). A further matter of concern is the extent of the gap at certain education levels—the LFPR of women with master and bachelor level degrees is 17.1 and 16.8 percentage points lower respectively than that of their male counterparts.
In Asia and the Pacific, there is gender bias against women across social, institutional, and economic spheres. This bias is reflected in significant unpaid care and domestic work, resulting in lower female LFPRs, women’s disproportionate engagement in informal work, consistent difference in male–female wage ratios, sex segregation in certain markets and occupations, and low levels of political representation. Behind this bias, there are overarching societal norms that often define the position of women in households, firms, labor markets, and politics. A 2016 ADB study in Mongolia shows how social norms and gender stereotypes play out. The research shows strong societal biases around the role of women, which were particularly profound in rural areas, among older generations and in less educated households. The biases strongly influence how women are viewed in the workplace and the choices that women make when choosing their career. Social norms and gender stereotypes also affect the length of time women are expected to participate in the labor market and when they are expected to attend to unpaid domestic care work.

B. Labor Force Participation Trends for the Last 2 Decades

Women in developing Asia are, on average, 30% less likely than men to be in the workforce, though there is considerable cross-country variation. On average, the female LFPR in Asia fell from 57.2% in 1990 to 50.3% in 2017, with marked variations across countries and subregions. Between 1990 and 2017, female LFPR fell sharply in East Asia and the Pacific, and the gap between the LFPR of women and men in East Asia widened. This gap has persisted and even widened, despite it being a period of economic growth, decreasing fertility rates, and increasing education.

In 2019, only 53.4% of working-age women in Mongolia participated in the labor force compared to 68.3% for men. Overall (male and female) labor force participation has by fallen 6.2 percentage points since 1999. It is the decline in the female LFPR that has dominated. During this period, the male LFPR only fell by 1 percentage point, whereas the female LFPR decreased by 10.7 percentage points (Figure 3). Figure 3 also shows that the LFPR gap between women and men has been increasing since 2009. The LFPR gap between men and women rose to 14.9 percentage points in 2019 compared to 1.4 percentage points in 2009.

The key constraints that underlie gender disparity in the labor market include traditional norms and social expectations for men and women regarding marriage, household and care duties, and career choices. The lack of an enabling political and social environment to change these expectations and other constraints, such as the lack of elderly care and childcare facilities, further constrain female labor force participation. Unsurprisingly, the highest LFPR gap is among women of typical childbearing age (20–39), reflecting the expectations that women primarily take childcare responsibilities (Figure 4). Moreover, the fact that women retire 5 years earlier than men at the age of 55 leads to another significant LFPR for the age group of 55–59.

---

C. Women's Employment and Key Constraints

(i) Women's Employment: Sector Concentration, Wage Inequality, and Workplace Protection

As of 2019, 54.0% of women in the labor force are salaried employees, 21.6% are herders, 17.4% are self-employed, 5.9% are non-paid workers in family-owned businesses, and employers account for 1.0% (Figure 5). Women make up 76% of non-paid work in family-owned businesses, three times the proportion of men (24%). This is reinforced by the high proportion of men in the categories of salaried employees, employers, self-employed, and herders, suggesting that women are more engaged in non-paid work and unpaid care and domestic work and less present in the formal labor market.
Furthermore, women are less likely to be in high-demand and higher-paid sectors, such as mining, manufacturing, and construction. By contrast, women are highly concentrated in lower-earning sectors, such as social services, health, food production, and trade. This suggests that gender norms on occupation and industrial sectors are affecting career choices for women and girls. This is reinforced by the data of university graduates where men comprise 73% of graduates in information technology, while women comprise 85.5% of graduates in teaching and 83.6% in medical science.

In terms of employment by economic sectors, majority of employees in the mining, construction, transportation and storage, public administration and defense, agriculture, forestry, fishing, and hunting sectors are male (56.5%–86.5%), whereas women dominate welfare, education, wholesale and retail trade, and hospitality (52.3%–84.3%) (Figure 6).
Occupational gender segregation results in much lower wages for women than for men. As of 2019, the national average monthly wage was 19.7% higher for men than for women, with MNT1,222,600 for male employees against MNT1,021,300 for females. Compared to 2009, this shows that the wage gap increased by 4.4 percentage points. In terms of economic activity, the wage gap is widest in finance and insurance (75% female–male wage ratio), information and communication (82%), and manufacturing (84%).

There is ample evidence that harassment in the workplace is costly for both victims and employers and can be particularly damaging for women's labor market outcomes. Weak grievance redress mechanisms in both the public and private sector accentuates the problem further. A study by the National Human Rights Commission of Mongolia in 2020 shows that one in five women have experienced sexual harassment in the workplace in Mongolia. The Law of Mongolia on Promoting Gender Equality prohibits sexual harassment in the workplace, but the law does not define how and to what extent a perpetrator can be made accountable and brought to justice. Against this background, the recent amendment to the Labor Code (2 July 2021), effective 1 January 2022, has brought the following progressive measures: (i) entitlement of 10 days paid paternity leave; (ii) prevention and redress mechanisms for workplace harassment, in particular, sexual harassment, to create harassment-free workplaces; and (iii) recognition of the part-time employment and work from home or remote work.

Furthermore, there is a link between female labor force participation and gender-based violence. Global studies show that when women have access to income-generation opportunities, they have more bargaining power within the household, reducing the risk of gender-based violence, including intimate partner violence. The study on risk factors of domestic violence in Mongolia revealed that better opportunities for income generation serve as a protective factor for most women.

An enabling environment with more female policy makers can foster more gender-inclusive policies and increases the chance that women’s specific needs and priorities are reflected. In practice, once women are in leadership positions, they can also significantly change public attitudes toward women, and importantly, raise the aspirations of teenage girls. However, in response to the COVID-19 crisis, for example, far from being equally represented in national political and scientific task forces, women account for only 25% of the experts leading the response to the virus. Similarly, in Mongolia, only three women are represented on the State Emergency Commission out of 26 members (11.5%).

(ii) **Legal and Policy Framework and Implications on the Ground**

According to Mongolia’s Vision–2050, the country aims to increase the LFPR to 65% by 2030 and 70% by 2050. To achieve this goal, progress on female LFPR will be essential. Vision–2050 also promotes an improved work–life balance through the introduction of more flexible working hours for working parents. In addition, the National Program on Gender Equality (2017–2021) aims to promote women’s labor force participation by increasing economic opportunities for women and through raising awareness to address gender stereotypes.

---

12 The national average monthly wage for men was 15.3% higher than that of women in 2009.
15 However, the causality between income generation and intimate partner violence should be taken cautiously, given recent studies showing that women working outside of the home earning an income can cause higher levels of stress within households and/or intimate partner violence as it can challenge the power status quo.
Maternity leave and retirement age policies contribute to decreased years of employment and earnings for women. Paid maternity leave is currently 120 days, but it is unlikely to be available in the informal sector, where more than 60% of women work. Employers are often reluctant to recruit women of childbearing age and those who are above 45 years old. Bias against women, particularly for women with small children, is also another factor leading to the low female labor force participation. For instance, Nikolova (2016) shows that respondents with small children were more likely to agree that chores should be done mostly by women even if their husbands do not work. Female respondents were more likely to agree that women are as able as men to serve as business executives and politicians, revealing a possible male bias against women.

A 2019 ADB study in Mongolia reveals that women above the age of 40 face various challenges in getting employment due to social stigma and the absence of programs to facilitate learning new skills, which are appropriate for their age, physical capacity, and career re-orientation. Furthermore, the legal age of retirement for women is 55, which is 5 years earlier than for men, resulting in a significant gap in the LFPR for the age group 55–59. While these retirement ages are voluntary guidelines, it is widely believed that employers seek to dismiss women at minimum retirement age due to a desire to fill their positions with younger employees. This early retirement affects the professional development and advancement potential of women, resulting in lower earnings and pensions. Unsurprisingly, women’s early retirement and lower pension are the leading causes of poverty among older women. As of 2015, the average pension for women was 18.6% lower than for men.

In January 2018, the Government of Mongolia launched a program called “Mothers with salary” to provide a monthly allowance (MNT50,000 or equivalent to $17.5) for mothers who take care of children under 3 years old to ensure their social security. This allowance was not paid to fathers nor to working mothers with children under 3 years old, including those who worked intermittently or part-time. The design of this allowance created a disincentive for women considering re-entering the labor market. Against this background, the law on allowances for mothers and single mothers and/or fathers with many children was amended on 6 May 2021 to allow the allowance payment to be made to fathers taking care of children under 3 years old. While it is a gender-sensitive way of promoting the father’s role in childcare, it may take time to have an impact. The data show that there are 20,000 fathers nationwide eligible for this kind of allowance compared to 167,041 mothers receiving the allowance as of May 2020.

(iii) Women’s Disproportionate Burden of Unpaid Care and Domestic Work

In Asia and the Pacific, women spend 4.1 times more doing unpaid work, second only to their counterparts in the Arab states (4.7 times). As a result, women dedicate less time than men to paid work: in Asia and the Pacific, 0.57 women are in paid work for each man, although women work longer hours than men when unpaid care work and paid work are added together. In Asia and the Pacific, women aged 15 and older spend 262 minutes per day for unpaid care work and 201 minutes per day for paid work, while men

19 For mothers with twins, it is 140 days.
20 Mongolia has not ratified the ILO’s Maternity Protection Convention, 2000 (No. 183), which entitles women to at least 14 weeks paid maternity leave.
23 According to the Social Insurance Law, the retirement age for men is 60 years old, while it is 55 years old for women who wish to retire. If a woman has four or more children, she is entitled to retire at the age of 50.
spend 64 minutes per day for unpaid care work and 353 minutes per day for paid work. The female–male ratio of total work (paid and unpaid) is 1.11 in Asia and the Pacific.27

In Mongolia, according to the 2019 Time Use Survey (TUS),28 working age (18–59) women spend 291 minutes per day on unpaid domestic work and care work, compared to 103 minutes for men (Figure 7).29 For adults aged 25–39, men spend 84% of working hours in paid work compared to women who spend 46% of their working hours doing paid work and the majority (54%) in unpaid work. Furthermore, women aged 25–39 spend 3.3 times more than their male counterparts in unpaid domestic and care work.30 The gap is often larger in rural areas. Consequently, women spend less time on paid work, resulting in lower female LFPR.31

In addition, while working-age men spend 23 minutes per day for childcare, women spend 71 minutes (Figure 8). The average time spent on doing household chores and providing unpaid assistance and services to family members, such as cooking, cleaning, and washing clothes, increases for rural women—women in urban areas spend an average of 85 minutes per day preparing food, whereas women in rural areas spend 127 minutes.

As an ADB survey reveals, in 2020, during the COVID-19 pandemic, women spent 54% of their daily time on unpaid care and domestic work while men spent 24% of their daily time (i.e., women spent 258 minutes per day while men spent 115 minutes per day). More specifically, women spent three times more daily time on cooking, twice more for cleaning, and twice more for childcare and education than men. Men spent 2.4 hours more than women for paid work per day.32

A study on the correlation between the presence of small children (aged 0–4) in a family and female employment in Mongolia shows that each small child decreases the probability of female labor force participation by 14.7 percentage points relative to women with no small children. Time allocation decisions are influenced by deep structural factors related to gender roles and social norms on household chores and care work. In addition, the limited availability of public childcare services leaves no other choice for young mothers than to directly look after their children up to primary school age.33 The Organisation for Economic Co-operation and Development (OECD) has examined a broad range of employment barriers and found that unmet care responsibilities affect up to one-quarter of all jobless people and much higher shares of jobless women.34 In Mongolia, statistics show that for women with children up to 2 years old, childcare is the primary reason for not participating in labor market due to the absence of childcare services for children. Furthermore, only a handful of public kindergartens can accommodate children with disabilities. The children of herders, disabled children, and the urban poor remain the hardest-to-reach groups.

28 According to the Law on Statistics of Mongolia, the NSO conducts the TUS every 4 years to identify the lifestyle of the population and estimate the time spent on paid and unpaid work by sex following international methodologies. The main and parallel activities, and other contextual information (e.g., location, with whom), follow the international classification of activities for the time use statistics (ICATUS 2016). Mongolia’s latest TUS dates to 2019.
29 This computation was made using the TUS raw data (not accounted secondary activity) from the NSO.
30 While any model must make broad assumptions and some detail gets lost, there is a growing recognition in the TUS community that time is never 100% dedicated to one activity, in particular, when it relates to care work. The US TUS, for example, is now looking to capture multiple activities in recognition that women may be “watching TV/enjoying leisure,” but this is in the context of babysitting children or even cooking, and other activities.
33 While a common choice is grandparents, according to the TUS, women aged 60 and above spend 31 minutes per day for childcare while men spend 19 minutes daily. No data is available on the number of children who are taken care of by their grandparents.
Due to limited capacity of childcare facilities across the country, only 40% of children who are supposed to be going to kindergarten are enrolled. Currently, 45.2% of herders’ children are not enrolled in early childhood education. Therefore, increasing the capacity and improving standards of the mobile (or ger) kindergartens are critical to promote rural women’s employment.

As stipulated in Mongolia’s Vision–2050, Mongolia aims to increase the capacity and access to social services including kindergartens. While the government plans to establish 60 new public kindergartens in 2021–2022, supply has not kept up with demand. The private market in Ulaanbaatar has seen the fastest growth in Mongolia and as of 2018–2019, there were more private (441) than public kindergartens.

---


While increased private provision may be part of the solution, it poses further challenges for the government around affordability and service quality. A lottery system has been put in place in Ulaanbaatar city since 2016 for the new entrance of children 2 to 5 years old to public kindergartens. In 2019, for example, 31,340 children aged 2 to 5 years old were registered for the lottery, of whom 57% (18,000) were enrolled. Moreover, there is a quality issue given the fact that there are 33 children on average per teacher in those kindergartens. This has also impacted corruption in the education sector. According to a report on corruption in the education sector survey, most parents bribed kindergarten administration to enroll their children.39

There is no facility that cares for children below 2 years old. Due to the high demand for childcare facilities, the Government Action Plan, 2020–2024 has identified the need (provision 2.3.1) to revive the national nursery system for children aged 1–2 years and childcare services for children aged 2–3 years.40 In line with this, the government issued a resolution on 16 December 2020 to re-introduce the nursery services for children aged 1–2 years starting from 1 September 2021 through a phased approach.41 However, due to the COVID-19 restrictions for the academic year 2021–2022, this plan has not materialized, and only children aged 4–5 years are allowed to attend public and private kindergartens.

The study in Mongolia shows that offering free public childcare increases mothers’ employment by 4.5 percentage points.42 Moreover, international studies show that childcare and flexible hours for parents with young children are associated with reduced parental stress, absenteeism, and staff turnover, as well as increased staff satisfaction and commitment.

(iv) COVID-19 Impact on Women’s Employment

Another generation of women will have to wait for gender parity, according to the World Economic Forum’s Global Gender Gap Report 2021.43 As the impact of the COVID-19 pandemic continues to be felt, the estimated time to close the global gender gap has increased by a generation from 99.5 years to 135.6 years. International studies show that COVID-19 increases income and non-income inequalities, including gender inequality in the economy, education, and livelihoods of communities in urban and rural settings. For instance, women and girls have unique health needs, but they are less likely to access quality and timely health services, essential medicines and vaccines, and maternal and reproductive health care. This is typically worse in rural areas and marginalized communities.44 These rising inequalities could threaten the progress and achievements made toward the Sustainable Development Goals.

The International Labour Organization has rated four sectors as being at high risk of severe job losses and declining working hours due to COVID-19: (i) accommodation and food services; (ii) real estate, business, and administrative activities; (iii) manufacturing; and (iv) wholesale and retail trade. In 2020, 527 million women, representing 41% of total female employment, are employed in these sectors globally, compared to 35% of total male employment. This suggests that women’s employment is likely to be hit more severely than men due to the COVID-19 crisis.45 Moreover, during the first quarter of 2020, the ILO reports that women’s employment rate declined by 4.9% globally, compared to 3.3% for men.46
(Q1) 2020, an estimated 5.4% of global working hours were lost relative to Q4 2019, equivalent to 155 million full-time jobs. Given the earlier spread of the virus in the People's Republic of China and other countries in Asia and the Pacific, the region accounted for approximately 80% of the global reduction in working hours during Q1 2020.46

As a study by United Nations Development Programme (UNDP) with ADB support in Mongolia reveals, preexisting poverty and inequality are likely to increase due to the COVID-19 crisis with substantial adverse impacts on vulnerable women and girls. Women and girls in rural areas, herders, migrants, elderly women, and those with disabilities are likely to feel the worst effects. Consequently, many of them are at high risk of falling into deeper poverty due to unemployment, underemployment, and income loss.47 National statistics show that the Mongolian economy contracted by 5.3% in 2020 due to the pandemic. As of Q1 2021, the female LFPR has fallen by 3.2 percentage points to 50.0%, while the male LFPR has fallen 3.9 percentage points to 65.1%.

Women work in sectors that have been disproportionately affected by the COVID-19 crisis in Mongolia. More specifically, the trade, service, and hospitality sectors have experienced a sharp decline in sales and revenues and the number of employees. In 2020, the total revenue in the food service sector decreased by 7% compared to 2019, while the number of employees decreased by 23.8%. As for the hospitality sector, revenue decreased by 55.9% and employees decreased by 29.1%.

Unpaid care work for women increased due to the closure of schools and kindergartens, and heightened care needs for the elderly due to overwhelmed health services. In addition, the increased work burden in the home may have impacted girls’ educational attainment. Girls living in ger districts or remote areas tend to perform more domestic work, which limits their well-being and study time.

According to ADB’s study (2021), due to the COVID-19 crisis, more women-led businesses, particularly micro, small, and medium-sized enterprises or MSMEs, cut jobs (23%) compared to men-led businesses (8%). Moreover, freelance workers with less or no income have been struggling with loan repayments, social insurance, taxes, and rent. This was most commonly observed in the trade and service sectors, where most female informal workers are employed.48 In addition to financial difficulties, women entrepreneurs were doubly burdened with domestic and care work due to the closure of kindergartens and schools and a shift to distance and online learning from November 2020 through June 2021. The ADB study (2021) covering 120 micro and small enterprises revealed that 82.5% of the total respondents had children aged 0–18 years and 61% had two to three children, and the majority of respondents (69.7%) said that businesses of women entrepreneurs, who had children of kindergarten and school ages, have been substantially affected.49

III. THE MODEL

In this working paper, we have used a model developed by Kim, Lee, and Shin (ADB 2016) for the Republic of Korea (ROK). We have calculated specific values for Mongolia where these were available, and have drawn on the parameters applied in the original model where similar data is unavailable for Mongolia. The applied theoretical model has a three-period overlapping generations structure where various aspects of gender inequality are related to the economy’s growth performance. Kim, Lee, and Shin (2016) have shown that improving gender equality can contribute significantly to economic growth by changing female time allocation and promoting the accumulation of human capital. We will now explain briefly how gender inequality was added to the model, the calibration we applied to the model, and the results.50

A. Model Structure

In the model, there are three agents represented in the economy: households, firms, and the government. According to the model, each individual lives in three periods: childhood, adulthood, and retirement. In retirement, time is allocated entirely to leisure. All individuals, men and women, work in adulthood. The wages earned in the adulthood period are the only source of income for individuals in the model. Adults, both male and female, supply their time to the labor market and receive wages, dividing their time toward four uses: (i) market production, (ii) home production, (iii) child-rearing, and (iv) child education. Each individual is either male or female and is endowed with one unit of time in each period of life. Children devote all their time to education in the first period of childhood. It is assumed that the total time in childhood is fixed and that children must spend a given fraction of it in school.

Children’s education depends on the educational attainment of the parents and the time they spend teaching their children. Boys and girls have the same innate abilities and, thus, the same intrinsic capacity to acquire human capital, making education critical for labor efficiency. There are survival rates from childhood to adulthood and from adulthood to retirement age, which are treated as distinct. Males and females have the same survival probabilities in childhood. However, women have a higher survival probability in adulthood, based on data for male and female mortality rates.

Adults divide their time for four uses: market production, home production, child-rearing, and child education. Thus, the time constraint for a female adult is as follows:

\[ h^{m} + h^{q} + h^{R} + h^{e} = 1 \]

where \( h^{m} \), \( h^{q} \), \( h^{R} \), and \( h^{e} \) are the amount of time an adult female allocates to market production, home production, child-rearing, and child education, respectively.

The model assumes that:

\[ h_{1}^{m} = f_{1} h_{1}^{q} \]

where \( h_{1}^{m} \) is the male adult’s time allocated to home production and \( f_{1} \) presents the bargaining power of the female partner with respect to home production, and we assume it is exogenously determined and constant. When there is perfect equality in home production, this coefficient is equal to 1.

50 See Kim, Lee, and Shin (2016) for more details.
The model assumes that $h^e_t = (2 - f_2) \nu_1$ where $2\nu$ is the time needed to rear a child. Therefore, the time a male adult allocates to child-rearing is:

$$h^m_t = f_2 \nu_1$$

where $f_2$ represents the bargaining power of a female adult with respect to child-rearing.

The model assumes that $h^e_t = n \epsilon^e_t$ where $\epsilon^e_t$ is the average time spent by a female adult educating each child. The male adult’s time allocated to child-rearing is determined by:

$$h^m_e = f_2 n \epsilon^e_t$$

where $f_3$ represents the bargaining power of a female adult with respect to a child’s education.

The education level of children, which will determine their productivity when they become adults, is determined by average government spending on education per child, the mother’s human capital $\epsilon^t_t$, and the time allocated to each child’s education by the mother. In the model, it is assumed that mothers choose how much time to allocate to home production, child-rearing, and child education. By contrast, the bargaining power of female adults determines the amount of time male adults allocate to those activities.

Firms produce market goods using capital, male labor, and female labor. They fully distribute the marginal product of male labor to men in the form of wages, but only a portion of the marginal product of female labor is distributed to women to reflect discrimination against women in the labor market. The level of discrimination is represented by a coefficient $d$ in the model, which equals 1 if there is no gender discrimination in the workplace.

**B. Model Calibration**

One of the objectives of this research was to measure the opportunity cost of gender inequality in Mongolia. Therefore, we calibrated the model and found the steady-state values of the economy. We then simulated a scenario with no gender gap and compared this simulation with the current steady-state values.

The sources used for calibration include Mongolian data reported in the World Development Indicators by the World Bank, United Nations, United Nations Children’s Fund (UNICEF), National Statistical Office of Mongolia, and Mongolia’s TUS–2019. Some parameter values are based on the studies by Kim, Lee, and Shin (2016b) and Agenor (2012). The full list of parameters and their sources are presented in the appendix to this report.

In the model we presented in the previous chapter, there are parameters on the gender gap, and inequality at home and in the workplace. Gender inequality at home is derived from the difference in time spent by men and women on home production and childcare. According to Mongolia’s TUS–2019, women aged 18–59 years spend 57 minutes per day on child-rearing and 14 minutes on child education, while their male counterparts spend 17 minutes on child-rearing and 6 minutes on child education. Therefore, in Mongolia, women spent 71 minutes, and men spent 23 minutes per day on average for childcare in 2019. Time spent by Mongolian women for child-rearing is on average 3.4 times longer than for men. The time spent each day by Mongolian women on the education of children is on average 2.3 times longer than that of men.
Table 1: Time Spent on Childcare, Minutes per Day, by Gender

<table>
<thead>
<tr>
<th>Time spent on</th>
<th>Male (aged 18–59)</th>
<th>Female (aged 18–59)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Child-rearing</td>
<td>17</td>
<td>57</td>
</tr>
<tr>
<td>Child education</td>
<td>6</td>
<td>14</td>
</tr>
<tr>
<td>Childcare, total</td>
<td>23</td>
<td>71</td>
</tr>
</tbody>
</table>


Coefficients on the bargaining power of a Mongolian female adult in child-rearing ($f_2$) and child education ($f_3$) can be derived from time spent on child-rearing and child education by gender (see equations 4 and 5 in Chapter III). These are 0.46 and 0.43, respectively. The coefficient on the bargaining power of a Mongolian female in home production ($f_1$) is 0.75, which is endogenously determined by the model.

As mentioned in the previous chapter, gender inequality in the workplace is measured by the parameter $d$, which is the proportion of their marginal product that female workers receive in wages (for male workers, wage equals their marginal product). There is no data on the gender gap in the workplace in Mongolia. Consequently, we assume that the gender gap in the workplace, $d$, equals 0.6 in Mongolia which is the same in the ROK.

For some steady-state parameters, we used period averages. The fertility rate is 2.8, which is the average rate from 2009–2018 in Mongolia. The gross savings rate is 30%, which is the average savings rate from 1991–2018, and we used an assumption that the depreciation rate is 8%. The steady-state annual per capita growth rate is 3.9%, which is the average rate from 1991–2018 (see Table 2 in the appendix on steady-state solutions for more details).

For some calibrated parameters, we used the latest available annual data. Mongolia’s adult survival rate (survival probability for adults to reach retirement age) is 0.786 using 2017 data. We assume that there is complete gender equality in education even though data show that the average years of schooling for males is 9.9 and females is 10.5, indicating a reverse gender gap in education in Mongolia. The LFPRs of males is 69.5% and females is 53.4%. We use the annual LFPR of 2019 for the model simulation to be consistent with the latest TUS data from 2019.

C. Model Results

We estimate the impact of gender inequality on the economy by comparing the performance of the baseline scenario with an alternative scenario where there is complete gender equality. In the alternative scenario, males and females have the same opportunities and power at home and in the labor market.

The alternative scenario assumes that changes in social norms regarding the role of women lead to autonomous increases in women’s bargaining power within the household. This results in an increase in $f_2$ from an initial value of 0.75 to a value of 1.0, which means the husband and wife spend the same amount of time on housework (home production). It results in an increase in $f_1$ from an initial value of

\[ f_1 = \frac{h_{mt}}{e_{mt}} \text{ and } f_2 = \frac{e_{mt}}{e_t} \Rightarrow f_2 = \frac{17}{(17+14)^2} \text{ and } f_3 = \frac{5}{14}. \]

Kim, Lee, and Shin (2016b) use 6% of depreciation rate for the ROK, and Bank of Mongolia DSGE model uses 13% of depreciation rate for Mongolia. In this research, we assumed 8% of depreciation rate.
0.46 to a value of 1.0, which means the husband and wife spend the same amount of time on child-rearing. It also means an increase in \( f_1 \) from an initial value of 0.43 to a value of 1.0, which means the husband and wife spend the same amount of time on child education. The assumption \( f_1 = f_2 = f_3 = 1 \) means that complete gender parity is achieved between husbands and wives. In this scenario, women can spend more time participating in the labor market (or more time on market production) by reducing their time on home production and childcare at home with the help of their male counterparts.

The alternative scenario also assumes that there is no discrimination against female workers in the labor market. In the model, this means an increase in \( d \) from the initial value of 0.6 to a value of 1.0, which means male workers and female workers receive wages equal to their marginal product. Therefore, if women receive the same wage as their male counterparts for doing the same job, women will have more incentives to participate in the labor market.

As to be expected, enabling women to choose to spend more time in the labor market and improving the equity of remuneration results in much greater female labor force participation. The simulation results show that eliminating gender inequality at work and home would increase female labor participation in Mongolia from 53.4% to 63.2%. This increase in labor force participation acts as a permanent increase in the labor supply, which increases economic output, resulting in an increase of the annual growth rate per capita by 0.5% (from 3.9% to 4.4% on average).

This working paper does not measure the impact of individual policies to support gender equality, nor does it measure the impact of incremental change. However, the model result strongly suggests that there are significant and long-lasting economic benefits to reducing gender inequality which, in turn, underlines the likely highly positive returns to policies and actions that boost gender equality in the workplace and in the home. This result has major policy implications, and the focus of the next chapters is to consider the international experience of available policy options and use these to frame a set of concrete policy recommendations for consideration in Mongolia moving forward.

<table>
<thead>
<tr>
<th>Current level</th>
<th>Female Labor Force Participation Rate</th>
<th>Per Capita Output Growth Rate</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>53.4</td>
<td>3.9</td>
</tr>
<tr>
<td>Alternative scenario with complete gender equality at home and in the workplace, ( f_1 = f_2 = f_3 = 1, d = 1 )</td>
<td>63.2</td>
<td>4.4</td>
</tr>
</tbody>
</table>

### IV. FOSTERING WOMEN’S LABOR FORCE PARTICIPATION: INTERNATIONAL PERSPECTIVES

This chapter discusses international experience on childcare policies, budget policies, and gender-inclusive infrastructure that can support women’s economic empowerment and participation in decision-making.

#### A. Advancing Gender Equality in the Workplace

There are many examples of countries that have adopted policies to promote gender equality in the workplace that have had real impacts on the ability of women to participate in the labor market. The ROK has helped to boost female employment by facilitating more part-time work opportunities and amending the tax code to encourage second earners in households.
Another example is in Italy, where working parents with children can take 15 days of parental leave at 50% of pay if the children are below the age of 12, and unpaid if they are older. This is open to both employees and those who are self-employed.

Many countries, including half of the Group of Twenty countries, have established quotas and other special measures to promote women's political participation and representation. Such measures can be complemented by promoting a more positive image of women, providing training programs for women who wish to pursue a political career, and mentoring programs to improve women's leadership on corporate boards. Some countries have taken dedicated steps to eliminate the gender pay gap—Iceland is a good example where the government requires employers with 25 or more employees to certify their salary structures annually according to equal-pay-for-work-of-equal-value principles.

Kazakhstan has adopted several policies to encourage firms to invest in the skills of older workers, such as tax allowances and tax credits to deduct the training costs of workers. Policies like these can be crucial at getting women above the age of 45 (who commonly face age and gender discrimination) into the labor market. Training is important more generally, with data from Indonesia revealing that women who undertake vocational training are more likely to join the labor force.

B. Advancing Gender Equality at Home

Another area where well-targeted policies can have real impact is in the home. Several international studies and surveys have concluded that more affordable childcare leads to higher female labor force participation.\cite{54} Recognizing, reducing, and redistributing unpaid care and domestic work, and providing quality affordable childcare increases women's labor participation and benefits the economy. It has been estimated that increasing the number of women in the workforce would raise GDP in OECD countries by 12% by 2030 from 2010 levels.\cite{55} By positioning care as a joint responsibility, OECD research has shown that it can promote a more equitable distribution of unpaid care work and can also increase employment among mothers.

Successful initiatives, such as in Finland and Norway, include public policies ranging from the provision of childcare facilities to statutory rights for paternal paid leave. For instance, Nordic countries invest in early childhood education and provide comprehensive and flexible childcare services, which result in employees with small children taking fewer absences from work. In Sweden, parents can stay home for a total of 120 days per child per year until the child turns 12 years old, receiving 80% of their regular income. Norwegian parents are entitled to 10 paid leave days per year until the child turns 12 years old, with single parents entitled to 20 days.\cite{56}

There is a strong correlation between mothers' labor force participation and the enrollment of children in childcare services in OECD countries. There is also emerging evidence suggesting that childcare allows for longer working hours, higher productivity and income, and employment in the formal sector, rather than in the informal sector. In Viet Nam, the provision of childcare is associated with 41% higher rates of wage employment among women and 26% more women working in the formal sector.\cite{57} In a comparative study of Japan and the ROK with Norway and Finland, researchers show, among other results, that public spending on childcare for ages 6–11 is critically important in helping women to continue to work. In the United States, up to an additional 10 weeks of paid leave can be granted to people caring for children whose schools are closed or whose childcare provider is unavailable because of COVID-19.

\begin{itemize}
\end{itemize}
In Japan, subsidies are being provided to compensate enterprises that have introduced family leave for workers affected by school closures to ensure continued salaries. Australia has expanded access to income support payments to persons taking care of someone affected by COVID-19. Furthermore, childcare subsidies have been expanded to cover early childhood educators and parents stranded due to extended quarantine or isolation during the pandemic.

Mexico has developed the Household Satellite Account since 2011 to provide information about the economic value of unpaid care work. The results of the Household Satellite Account have informed public policy related to gender equality, care services, and household expenditure and consumption. These results have been used to design development indicators for national policy—the National Program for Equal Opportunity and Non-Discrimination Against Women 2013–2018—which include estimates of women’s contribution to GDP by the economic value of unpaid household work. This type of approach has also been taken in other countries, such as Canada, the United Kingdom, and the United States. ADB has estimated the value of unpaid care work in Bhutan by showing the pros and cons of various approaches and their equivalent measures of unpaid care work as a share of GDP.

Investing in quality infrastructure, particularly in rural areas, can potentially free up women’s time to pursue economic opportunities. A study in Pakistan reveals that water sources closer to home decreased time devoted to housework and increased female employment. In Nepal, ADB supported rural women’s economic empowerment by combining increased access to income, assets, and employment opportunities with social empowerment initiatives addressing women’s time constraints. Over 3,500 small community infrastructure projects were introduced, including access to water, sanitation, transportation, and time- and labor-saving technologies. The introduction of water taps was particularly beneficial, reducing women’s time spent on related tasks by 41 minutes per day on average. These initiatives have had positive spillover effects for households, of which 67% were able to dedicate the time saved to income-generating activities.

V. CONCLUSIONS AND POLICY RECOMMENDATIONS

Increasing the LFPR of women has high economic returns for the entire economy and should constitute a core policy for the Government of Mongolia. This working paper aims to demonstrate the impact of eliminating gender inequality in the workplace and at home on Mongolia’s economic growth. Building on the international practices outlined in the previous chapter, this working paper concludes with a set of recommendations that can increase female labor force participation and boost Mongolia’s economic growth.

To accelerate an inclusive recovery from the COVID-19 crisis, increased female participation in the labor force can ultimately boost Mongolia’s economic prospects. There are several avenues that can help increase female labor force participation, including labor market policies, increased public awareness and capacity building on gender issues, and targeting gender design features in investment projects. At the core of this is the need for a “whole-of-government” approach to address gender disparities in the labor market by ensuring the timely collection and use of gender-disaggregated data on employment for policy making and budgeting purposes. More specifically, the following measures are recommended:

---

58 Government of Australia, Department of Education. Child Care Subsidy.
A. Enabling Environment

Adopt relevant International Labour Organization conventions including the Workers with Family Responsibilities Convention (C156), the Part-time Work Convention (C175), the Home Work Convention (C177), and the Maternity Protection Convention (C183). To address harassment in the workplace, it is recommended that Mongolia adopt the Convention No. 190 and Recommendation No. 206 that recognize the right to work free from violence and harassment, including violence and harassment linked to gender-based violence.

Ensure the enforcement of legal and policy frameworks. To prevent age and gender discrimination and protect the rights of women, in particular, young women and women aged 45 and above, it is critical to ensure effective implementation of the Law on Promotion of Gender Equality (article 11); Labor Code (provision 7.2); National Program on Gender Equality, 2017–2021 (clauses 3.1.1–3.1.4); and sector gender policies. More specifically, it is critical to monitor and undertake measures against the entities making female employees retire against their will. Furthermore, to materialize the recent amendment to the Labor Code, effective 1 January 2022, more efforts should be taken toward creating an enabling policy environment and ensuring enforcement actions in both public and private entities. In addition, accounting for women’s longer average life expectancy, the government should consider equalizing the retirement age for women and men.

B. Economic Measures

Introduce gender-responsive policy options and incentives as part of the COVID-19 recovery and beyond to avoid the further decline of female LFPR. To enable more women to work and access higher-paying sectors of the economy, gender-responsive fiscal policies should be designed to create conditions and incentives for women to work. This may include tax regimes that can be more favorable for working families and the provision of subsidized childcare. The introduction of tax allowances and tax credits to encourage business entities to adopt re-skilling programs for mothers wishing to re-enter the labor market and female employees aged 45 years and above could also be considered. These actions should be complemented by more flexible and family-friendly work arrangements to reduce the constraints to female labor force participation from domestic responsibilities. These arrangements could include shorter hours or working weeks, remote working, part-time jobs, and working from home. These efforts must be accompanied by the provision of sufficient affordable and quality childcare services. The government should also prioritize the funding of research and evidence-building to formulate policies that will increase female LFPR.

Increase investment in early childhood education and care. Provide carefully designed targeted support measures to preserve equity and boost work incentives, including increasing access to and availability of early childhood education and care services to free up the time of parents. Due consideration should be given to ensure that the cost of such services is affordable and available to the parents who need it most.

---

61 These conventions require governments to (i) take into account the needs of workers with family responsibilities in community planning and develop community services, such as childcare and family services and facilities; (ii) ensure that part-time workers benefit from equivalent conditions in relation to maternity protection, termination of employment, and other terms and conditions of employment; (iii) promote equality of treatment between homeworkers and other wage earners (e.g., in relation to protection against discrimination, remuneration, and social security); and (iv) provide at least 14 weeks paid maternity leave.


63 Measures such as entitlement of 10 days paid paternity leave; and prevention and redress mechanisms for workplace harassment, in particular, sexual harassment.

In the COVID-19 era, employers should regularly check in with their employees regarding their childcare and family needs, concerns, and possible solutions. There are several ways in which employers can respond to the needs of their employees and offer family-friendly support, such as (i) providing childcare services to essential staff, including those in working in health care; (ii) allowing home-based work where possible; (iii) offering flexible work options (even during home-based work); and (iv) allowing staff to take paid family and emergency leave.

Promote gender-sensitive career guidance for adolescent girls and boys to address occupational gender segregation. It is crucial to encourage women to enter nontraditional employment and revenue-generating roles to promote their empowerment in the workplace, marketplace, and community. Moreover, further studies need to be undertaken to assess which sectors are the least conducive to the participation of women, so that policy making can be adapted to the specific needs of these sectors and the women interested in looking for employment in these sectors.

Strengthen the client orientation of labor market intermediation services and improve the responsiveness of employment promotion programs to gender-specific constraints. It is crucial to develop job-matching services to help women find opportunities, receive career counseling, increase their employability and social networks, and learn how to negotiate better working conditions and wages. It is also critical to promote lifelong learning to enable women, particularly those returning to work after a period of absence, to keep up with technological changes in the rapidly changing workplace.

Promote women’s political participation, agency, and leadership. Mongolia ranks 120th out of 153 countries in the gender gap subindex on political empowerment. Only 22.8% of political appointees are women despite representing 60.4% of employees in public services. When women are involved in decision-making, gender concerns are better addressed in policy making and budgeting. In line with the UN Women’s Empowerment Principles, it is important to implement gender-sensitive recruitment and retention practices and proactively recruit and appoint women to managerial, executive, and board positions.

Promote the guidelines on gender-inclusive workplace for private sector entities. Expanding female entrepreneurship could help promote women’s labor force participation more broadly, as women entrepreneurs are more likely to hire other women as employees. Furthermore, to make the workplace gender-inclusive and family-friendly, it is crucial to disseminate and implement the guidelines on gender-inclusive workplaces in private sector entities developed with ADB support. To do so, the government should consider incentives to recognize and/or incentivize employers to introduce gender-inclusive workplace practices. This should be supported by systematic training of administrative and human resource staff on gender disparities in employment, gender-inclusive workplaces, and the implications for human resource policies and internal labor regulations.

Challenge the normalized understanding of organizational culture and work environment. Public and private entities should (i) survey their employees to find out what they truly need during the pandemic, (ii) re-examine the existing policies and corporate activities to see if they are providing the necessary support for women and caregivers, and (iii) implement flexible policies to meet the specific needs that women and families have.

---

66 There are multiple frameworks and initiatives to support gender equality in the private sector and in the workplace, such as ILO conventions and normative instruments by the UN Global Compact, UN Women, EDGE, and others (e.g., Women’s Empowerment Principles, and ILO’s Convention on Violence and Harassment, No. 190).
C. Social Norms and Childcare: Investing in the Care Economy and Care Infrastructure

Transform the inequities of unpaid care work into a new, inclusive care economy that works for everyone. Unpaid care work performed in the household is typically precious to society—for example, children’s education. In the long run, it is recommended to explore options for valuing unpaid work through policies to (i) reward activities or offer incentives to men and women who perform unpaid work, and (ii) change societal perceptions and behavior toward unpaid care work.

Assure universal access to quality affordable childcare. Following the recommendations of international organizations, including ADB, the government, in collaboration with businesses and civil society should conduct an assessment of the care economy, including affordability of quality care costs and infrastructure needs to (i) identify entry points for policy and investment, and (ii) meet the needs of working families in both the formal and informal sectors. Building upon government policies, businesses should (i) assess any remaining employee childcare needs, in collaboration with worker representatives and labor unions; (ii) invest in solutions to meet these needs; and (iii) where appropriate, support meeting any remaining needs of the surrounding community.70

Ensure sustainable capacity development of the childcare workforce. The government should allocate public funds and seek the support of the private sector and donor agencies to develop the capacity and sustainability of the childcare workforce, particularly to address the needs of children with disabilities.71

Increase public awareness on gender equality to change prevailing gender norms. This could begin with a national debate on women’s unpaid care work using the Time Use Survey of the National Statistical Office. This is an important step in understanding the need to rebalance female unpaid care work by recognizing and rewarding unpaid work. In the long run, it is recommended to explore options for valuing unpaid care work, such as child-rearing and education. To further increase public awareness, evidence-based and targeted communication efforts are critical to sensitize the general population. Specific emphasis should be placed on the inclusion of men and boys in these programs. The use of television and social media channels are effective ways of awareness-raising, but these need to be reinforced by tailored community-based communication campaigns and workshops.

Integrate gender design into infrastructure projects to address women’s time poverty. Project experiences show that proactive gender-friendly design features in infrastructure projects can support women’s participation in the labor market. Designing infrastructure interventions in urban development that consider the location of water points or latrines can significantly benefit women. In transport, design features in bus stops and street lighting can foster the use of public transport by women and, ultimately, their ability to participate in economic activity. In some electrification and road connection projects, facilities such as marketplaces and training programs are provided to improve income opportunities for women. In the energy sector, professional networks can be promoted to help women access nontraditional occupations, such as frontline engineers.

71 ADB, ILO, UNDP and UN Research Institute for Social Development have started a joint regional study in 2022 on promoting investments in sustainable childcare in Asia and the Pacific, which includes Mongolia.
References

A. International Conventions, Country Legislations, and Policy Briefs


B. Studies, Surveys, Working Papers, and Articles


References


UN Global Compact and UN Women. Women’s Empowerment Principles.

UNICEF. 2019. Child survival and the SDGs.


## APPENDIX: PARAMETERS USED IN MODEL ESTIMATION

The calibration parameters and steady state solutions are presented as follows:

### Table A.1: Calibrated Parameters

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Value</th>
<th>Description</th>
<th>Source</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Households</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>$\rho$</td>
<td>0.2843</td>
<td>Annual discount rate, time discount</td>
<td>Endogenously determined in the model</td>
</tr>
<tr>
<td>$\delta$</td>
<td>1.05</td>
<td>Preference parameter for number of children</td>
<td>Same as in Kim, Lee, and Shin (2016)</td>
</tr>
<tr>
<td>$\eta_e$</td>
<td>0.2</td>
<td>Preference parameters for children’s education</td>
<td>Same as in Kim, Lee, and Shin (2016)</td>
</tr>
<tr>
<td>$\eta_q$</td>
<td>12</td>
<td>Family preference parameter for home production output</td>
<td>Same as in Kim, Lee, and Shin (2016)</td>
</tr>
<tr>
<td>$\eta_c$</td>
<td>3.5</td>
<td>Preference parameter for consumption</td>
<td>Same as in Kim, Lee, and Shin (2016)</td>
</tr>
<tr>
<td>$\upsilon$</td>
<td>1.2731</td>
<td>Rearing time needed per child</td>
<td>Endogenously determined in the model</td>
</tr>
<tr>
<td>$e_i^*$</td>
<td></td>
<td>Average education time spent for each child</td>
<td>Endogenously determined in the model</td>
</tr>
<tr>
<td><strong>Home output</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>$\gamma$</td>
<td>0.122</td>
<td>Curvature of production function</td>
<td>Same as in Kim, Lee, and Shin (2016)</td>
</tr>
<tr>
<td>$f_i$</td>
<td>0.62</td>
<td>Bargaining power of a female in home production</td>
<td>Researcher’s calculation based on raw data of Time Use Survey Mongolia (2015)</td>
</tr>
<tr>
<td>$f_s$</td>
<td>0.73</td>
<td>Bargaining power of a female in child-rearing</td>
<td>Researcher’s calculation based on raw data of Time Use Survey Mongolia (2015)</td>
</tr>
<tr>
<td>$f_o$</td>
<td>0.75</td>
<td>Bargaining power of a female in child-rearing</td>
<td>Researcher’s calculation based on raw data of Time Use Survey Mongolia (2015)</td>
</tr>
<tr>
<td>$\eta$</td>
<td>55.0195</td>
<td></td>
<td>Endogenously determined in the model</td>
</tr>
<tr>
<td>$\chi$</td>
<td>0.8</td>
<td>Output elasticity of female and male education</td>
<td>Same as in Kim, Lee, and Shin (2016)</td>
</tr>
</tbody>
</table>

*continued on next page*
Table A.1: continued

<table>
<thead>
<tr>
<th>Market output</th>
<th>Value</th>
<th>Description</th>
<th>Source</th>
</tr>
</thead>
<tbody>
<tr>
<td>$\alpha$</td>
<td>0.4</td>
<td>Elasticity with respect to labor input</td>
<td>Same as in Kim, Lee, and Shin (2016)</td>
</tr>
<tr>
<td>$d$</td>
<td>0.6</td>
<td>Gender bias in the workplace</td>
<td>Same as in Kim, Lee, and Shin (2016)</td>
</tr>
<tr>
<td>$\gamma$</td>
<td>1</td>
<td>Same as in Kim, Lee, and Shin (2016)</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Human capital</th>
<th>Value</th>
<th>Description</th>
<th>Source</th>
</tr>
</thead>
<tbody>
<tr>
<td>$\nu_1$</td>
<td>0.4</td>
<td>Elasticity with respect to public spending in education</td>
<td>Same as in Kim, Lee, and Shin (2015)</td>
</tr>
<tr>
<td>$\nu_2$</td>
<td>0.3</td>
<td>Elasticity with respect to public-private ratio</td>
<td>Same as in Kim, Lee, and Shin (2016)</td>
</tr>
<tr>
<td>$\nu$</td>
<td>1</td>
<td>Same as in Kim, Lee, and Shin (2016)</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Government</th>
<th>Value</th>
<th>Description</th>
<th>Source</th>
</tr>
</thead>
<tbody>
<tr>
<td>$\tau$</td>
<td>0.163</td>
<td>Tax rate on marketed output</td>
<td>Same as in Kim, Lee, and Shin (2016)</td>
</tr>
<tr>
<td>$\mu$</td>
<td>0.39</td>
<td>Education spending efficiency parameter</td>
<td>Same as in Kim, Lee, and Shin (2016)</td>
</tr>
<tr>
<td>$\phi$</td>
<td>3</td>
<td>Factor of unproductive, exogenous government expenditure to educational expenditure</td>
<td>Same as in Kim, Lee, and Shin (2016)</td>
</tr>
</tbody>
</table>

Table A.2: Steady-State Solutions

<table>
<thead>
<tr>
<th>Variables</th>
<th>Value</th>
<th>Description</th>
<th>Source</th>
</tr>
</thead>
<tbody>
<tr>
<td>$hm$</td>
<td>0.695</td>
<td>Labor force participation rate of males</td>
<td>Labor force participation rate of males in 2018, NSO.</td>
</tr>
<tr>
<td>$hw$</td>
<td>0.534</td>
<td>Labor force participation rate of females</td>
<td>Labor force participation rate of females in 2018, NSO.</td>
</tr>
<tr>
<td>$\theta$</td>
<td>0.22</td>
<td>Net savings rate</td>
<td>Net domestic savings rate is gross savings rate minus depreciation rate. Average gross savings rate was 30% for 1991–2018, according to World Bank data. <a href="https://data.worldbank.org/indicator/ny.gns.ictr.zs">https://data.worldbank.org/indicator/ny.gns.ictr.zs</a>. We assume depreciation rate to be 8%. Kim, Shin, and Lee (2015) have depreciation rate of 6% and BoM DSGE assumes depreciation rate of 13%.</td>
</tr>
<tr>
<td>$\gamma_{VN}$</td>
<td>3.16</td>
<td>Per capita growth rate</td>
<td>Average per capita income growth for 1991–2018, NSO. <a href="https://www.1212.mn/tables.aspx?tbl_id=DT_NSO_0500_012V1&amp;GDP_03Select=all&amp;GDP_03SingleSelect=_1&amp;YearYSelect_all=1&amp;YearYSingleSelect=1&amp;viwtype=table">https://www.1212.mn/tables.aspx?tbl_id=DT_NSO_0500_012V1&amp;GDP_03Select=all&amp;GDP_03SingleSelect=_1&amp;YearYSelect_all=1&amp;YearYSingleSelect=1&amp;viwtype=table</a>.</td>
</tr>
</tbody>
</table>
Impact of Gender Inequality on Long-Term Economic Growth in Mongolia

Increasing the participation of women in the labor force can help boost overall economic growth in Mongolia, where the participation rate for working-age women is 53.4%, compared to 68.3% for men. The coronavirus disease pandemic is expected to have worsened this gender gap. Asian Development Bank estimates show that eliminating gender inequality at work and at home would increase female labor force participation in Mongolia to 63.2%, which would boost the annual per capita economic growth rate by 0.5 percentage points. The paper provides recommendations such as enforcing gender-responsive legal and policy frameworks and investing in childcare and education.

About the Asian Development Bank

ADB is committed to achieving a prosperous, inclusive, resilient, and sustainable Asia and the Pacific, while sustaining its efforts to eradicate extreme poverty. Established in 1966, it is owned by 68 members—49 from the region. Its main instruments for helping its developing member countries are policy dialogue, loans, equity investments, guarantees, grants, and technical assistance.