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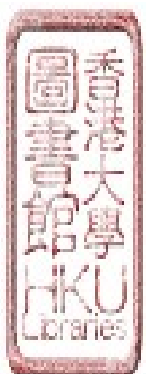
Is Gender Equality a Prerequisite for Economic Advancement?

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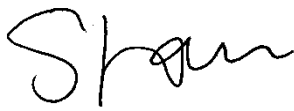
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TAM Pak Yin



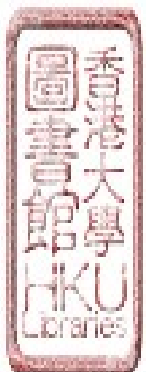
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Abstract

The advancement of women's right and advocacy for gender equality emerged as a global issue when the United Nations (UN) General Assembly adopted The Convention on the Elimination of All Forms of Discrimination against Women in 1979. Gender equality has eventually become one of the key concerns in the UN Millennium Development Goals and Sustainable Development Goals. Over the past few decades, there were also increasing literature discussing the correlation between gender equality and economic advancement. Gender indicators were also developed to measure gender-related changes in the world over time. Internationally recognized ones include Gender Inequality Index developed by the United Nations Development Programme and Global Gender Gap Index developed by the World Economic Forum. By reviewing the latest figures and country rankings of these two indices, it can be observed that countries with higher degree of gender equality tend to have higher Gross Domestic Product per capita, revealing a positive correlation between gender equality and economic advancement. Meanwhile, being an advocate of gender equality, the UN has been emphasizing that gender equality is a prerequisite for poverty alleviation and economic advancement, and that addressing gender inequality is especially important to improving the economy of developing countries.

Against this background, this research attempts to examine the validity of notion that gender equality is a prerequisite for economic advancement. Four countries, two being developing countries, namely *China* and *India*, and two being developed countries, namely the *United States (US)* and the *United Kingdom (UK)*, have been chosen to conduct case studies, on the ground that all of them (1) have a relatively sizable population, (2) had experienced a certain extent of economic advancement over different periods of time, and (3) are the leading economies in their respective regions and have substantial influence in the global economy. A common analytical framework is set to testify the hypothesis. In each



case study, we examine the country's gender equality by looking into the labor participation rate of women, wage gap between women and men, and literacy rate, as well as gender-related legislation and legal development.

Based on our findings, in all four case studies, gender equality was not achieved before the period the respective countries experienced the most significant economic advancement. Other factors, which varied among countries, were the stronger forces that had driven the economic advancement. Our research, therefore, has refuted the notion that gender equality is a prerequisite to economic advancement. However, the importance of gender equality should not be undermined. As the economy of the country moves closer towards the developed side, we believe the importance of gender equality to economic advancement will escalate. The success in developed countries, in promoting gender equality can therefore shed light on the directions that developing countries should follow. Our policy recommendations are that, first, legal protection and enforcement should be carefully considered and implemented; and second, in addressing gender inequality, priority should be given to education before closing gender gap in labor force participation and promoting wage equality between genders.

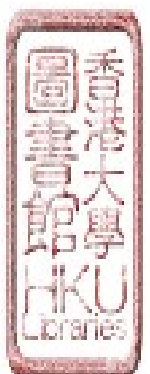
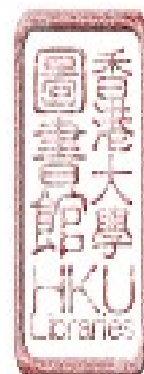


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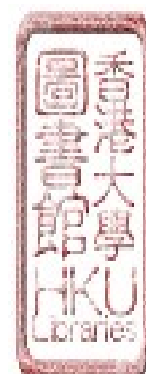
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Background

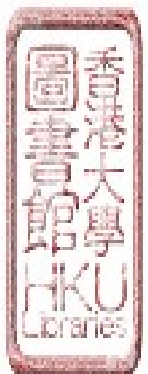
Literature concerning gender equality and economic advancement has proliferated since the 1990s. The advancement of women's right can be traced back as early as in 1979, when the United Nations (UN) General Assembly adopted The Convention on the Elimination of All Forms of Discrimination against Women, and several decades later, the UN launched the Millennium Development Goals, inter alia, specifically aims to empower women as well as to promote gender equality. In 2010, the UN General Assembly formed a new entity, namely the UN Women, to accelerate the achievement of the UN's goals in respect of gender equality. In 2015, the UN adopted 17 sustainable development goals of the 2030 Agenda for Sustainable Development and "achieving gender equality and empowering all women and girls" is one of the 17 goals¹. The above shows that achieving gender equality has been placed as one of the top agenda in the UN over the past decades.

There are two major schools of thoughts in the field of gender equality advocacy – (i) gender equality per se has its intrinsic value which is worthy to pursue; and (ii) gender equality brings about instrumental value which is conducive to achieving other development goals, or simply coined by the World Bank as "smart thing to do"². The notion of whether gender equality is the key vehicle of economic advancement mainly falls into the second category.

In promoting gender equality and empowerment of women, the UN has been emphasizing that gender equality is a prerequisite for poverty alleviation and economic advancement. "Gender equality is more than a goal in itself. It is a precondition for meeting the challenge of reducing poverty, promoting sustainable development and building good

¹ United Nations, *The Sustainable Development Agenda*, accessed June 11, 2016, <http://www.un.org/sustainabledevelopment/development-agenda/>.

² Naila Kabeer and Luisa Natali, "Gender Equality and Economic Growth: Is there a Win-Win?," *Institute of Development Studies Working Paper* 2013, no. 417 (February 2013): 6-8.



governance”³, this famous quote from the former UN Secretary-General Kofi Annan has been widely and repeatedly used in many different public occasions including by the former UNICEF Executive Director Ann M. Veneman in 2006⁴ and Secretary-General of OECD Angel Gurría in 2012⁵.

It appears that the concept of “gender equality leading to economic advancement” has been widely accepted by the UN. According to the United Nations Development Programme (UNDP), it is stated that “Gender equality makes good economic sense ... When women have equal access to education, and go on to participate fully in business and economic decision-making, they are a key driving force against poverty”⁶. Besides, according to the website of the UN sustainable development goals, providing women and girls with equal access indifferent aspects will fuel sustainable economies⁷. Separately, the former Executive Director of the UN Women Michelle Bachelet quoted findings of a report in an interview in 2011 that countries achieving better gender equality were in general more competitive and grew faster⁸. Therefore, economic advancement has been accentuated by the UN as one of the major reasons to promote gender equality, in particular in the developing economies.

³ Smita Nayak, *Whither Women: A Shift from Endowment to Empowerment* (New Delhi: EduPedia Publications (P) Ltd., 2016), 211.

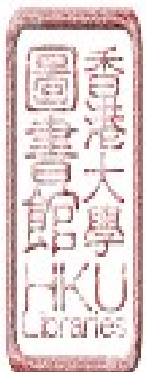
⁴ “Statement of UNICEF Executive Director Ann M. Veneman on International Women’s Day,” *UNICEF Press Centre*, March 8, 2006, accessed June 11, 2016, http://www.unicef.org/media/media_35134.html.

⁵ “Closing the Gender Gap: Act Now! – Remarks by Angel Gurría, Secretary-General,” *OECD*, December 17, 2012, accessed June 11, 2016, <http://www.oecd.org/gender/home/closingthegendergapactnow.htm>.

⁶ “Gender and Poverty Reduction,” *United Nations Development Programme*, accessed June 18, 2016 http://www.undp.org/content/undp/en/home/ourwork/povertyreduction/focus_areas/focus_gender_and_poverty.html

⁷ “Goal 5: Achieve gender equality and empower all women and girls,” *United Nations*, accessed June 18, 2016, <http://www.un.org/sustainabledevelopment/gender-equality/>.

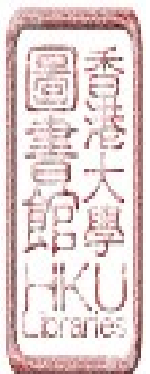
⁸ “Global champion for women: interview with Michelle Bachelet,” *UNESCO Media Services* February 23, 2011, accessed June 18, 2016, http://www.unesco.org/new/en/media-services/single-view/news/global_champion_for_women_interview_with_michelle_bachelet/#.V0qi5748qL0.



Is Gender Equality a Prerequisite for Economic Advancement?

The concept of gender equality is a multi-faceted one and the mainstream foci of analysis are in the field of labor market participation, education, health and political participation, etc. In view of the cross-cutting implications of gender equality advocacy, gender blind policy design could have far-reaching impact on public administration and the development of the society. Some consider that gender equality could be a double-edged sword which strengthens the policy makers' determination to adhere by the gender equality principles by bringing economic growth while gender equality may also subject women to numerous adverse consequences if appropriate support and administrative measures are not in place or duly provided.

This paper will examine the validity of the notion that "gender equality leading to economic advancement" by conducting qualitative and quantitative analyses. In the first part of this paper, we will analyze whether there is a direct correlation between gender equality and economic advancement, based on the empirical data including the Gender Inequality Index developed by the UNDP as well as the Global Gender Gap Index published by the World Economic Forum. The second part will feature four case studies in which both developing countries and developed countries will be discussed with a view to construct an encompassing and balanced discussion. The third part of the paper will set out the policy implications drawn from the case studies. It is the goal of this paper to shed light for the directions of gender equality advocacy policies that address the gender inequality problem and eventually help to drive economic advancement.



Direct Correlation between Gender Equality and Economic Advancement

Empirical Data Review

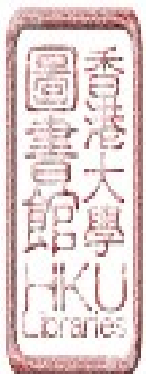
With the growing importance of gender equality in global development, gender indicators have been developed to measure gender-related changes in society over time. These indicators are significant in three aspects. First, they provide evidence of gender inequality and help to urge governments and related institutions to put gender issues on higher priority. Second, they can be used to assess the effectiveness of gender mainstreaming programs and initiatives, thus enabling better planning and actions to address gender inequality. Third, they can be used to assess the commitment of governments and institutions on gender equality, thus holding them accountable for their actions or lack of actions.⁹

Various indicators exist. At international level, widely used indicators include the *Gender Inequality Index* developed by the UNDP and the *Global Gender Gap Index* developed by the World Economic Forum. At regional level, examples include the *Gender Equality Index* developed by the European Union (EU) to assess the impact of gender equality policies in the EU and by member states over time¹⁰, and the *Africa Gender and Development Index* introduced by the United Nations Economic Commission for Africa to monitor the progress towards gender equality in African countries. To narrow down our research scope, we will keep our analysis focus on the following two international gender indicators:

- ***Gender Inequality Index (GII)*** was introduced by UNDP in 2010 to replace the two indices that had been used since 1995, namely *Gender-related Development Index* and *Gender Empowerment Measure*. GII measures gender inequalities in 155 countries or

⁹ Annalise Moser, *Gender and Indicators: Overview Report* (Brighton: BRIDGE/IDS, 2007), 7-8.

¹⁰ "About Gender Equality Index," *European Institute for Gender Equality*, accessed July 22, 2016 <http://eige.europa.eu/gender-statistics/gender-equality-index>.



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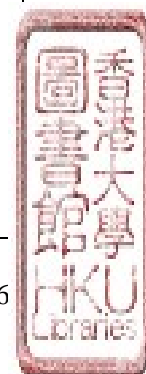
three aspects of human development – *reproductive health, empowerment and economic status*. It reveals the human development costs of gender inequality and sheds light on the position of women in individual countries¹¹. The *higher* the GII value the higher (lower) degree of gender inequality (equality).

- **Global Gender Gap Index (GGI)** was introduced by the World Economic Forum in 2006 to measure gender gaps in four fundamental areas – *economic participation and opportunity, educational attainment, health and survival and political empowerment*. The 2015 report covers 145 countries. The *lower* the GGI value the higher (lower) degree of gender inequality (equality).

Table 1: Structures of the Gender Inequality Index and Global Gender Gap Index

Gender Inequality Index (GII)	Global Gender Gap Index (GGI)
<p>5 indicators in 3 areas</p> <p>I. Reproductive Health</p> <ul style="list-style-type: none"> • Maternal mortality ratio • Adolescent birth rate <p>II. Empowerment</p> <ul style="list-style-type: none"> • Female and male population with at least secondary education • Female and male shares of parliamentary seats <p>III. Economic Status</p> <ul style="list-style-type: none"> • Female and male labor force participation rates 	<p>14 indicators in 4 areas</p> <p>I. Economic Participation and Opportunity</p> <ul style="list-style-type: none"> • Female-over-male ratio on labor force participation • Wage equality between women and men for similar work • Female-over-male ratio on estimated earned income • Female-over-male ratio among legislators, senior officials and managers • Female-over-male ratio among professional and technical workers <p>II. Education Attainment</p> <p>Female-over-male ratio on:</p> <ul style="list-style-type: none"> • literacy rate • net primary enrolment rate • net secondary enrolment rate • gross tertiary enrolment rate

¹¹ “Gender Inequality Index (GII),” *UNDP Human Development Reports*, accessed July 22, 2016 <http://hdr.undp.org/en/content/gender-inequality-index-gii>.

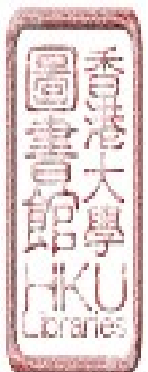


	<p>III. Health and Survival</p> <ul style="list-style-type: none"> • Sex ratio at birth • Female-over-male ratio on healthy life expectancy <p>IV. Political Empowerment</p> <p>Female-over-male ratio on:</p> <ul style="list-style-type: none"> • seats in parliament • at ministerial level • number of years of the head of state in last 50 years
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Source: UNDP and World Economic Forum ¹²

Table 1 lists out the indicators that are used to compute GII and GGI respectively. Comparing their structure, GGI stands out to be a more comprehensive index than GII. One of the differences is on the aspect of education attainment. While GII only focus on basic education, GGI covers all levels, from basic to tertiary education. This makes a difference because not only is it an important aspect of human development, but education is also closely linked to the other aspects of human development, such as empowerment and opportunity. It affects one’s participation and opportunity in the labor market and earnings because education level determines whether one can get hired, what kind of occupations one can pursue and which level of position one can reach. Similarly, GGI also has a broader coverage in the aspect of political empowerment. Another difference is on the economic empowerment. Unlike GII which only considers the labor participation, GGI concerns gender equality in every aspect of the labor market by including wage equality, job opportunities and occupational distribution in their calculation.

¹²“Gender Inequality Index (GII),” *UNDP Human Development Reports*, accessed July 22, 2016 <http://hdr.undp.org/en/content/gender-inequality-index-gii>; and
 “Measuring the Global Gender Gap,” *The Global Gender Gap Index 2015*, accessed July 22, 2016 <http://reports.weforum.org/global-gender-gap-report-2015/measuring-the-global-gender-gap/>.

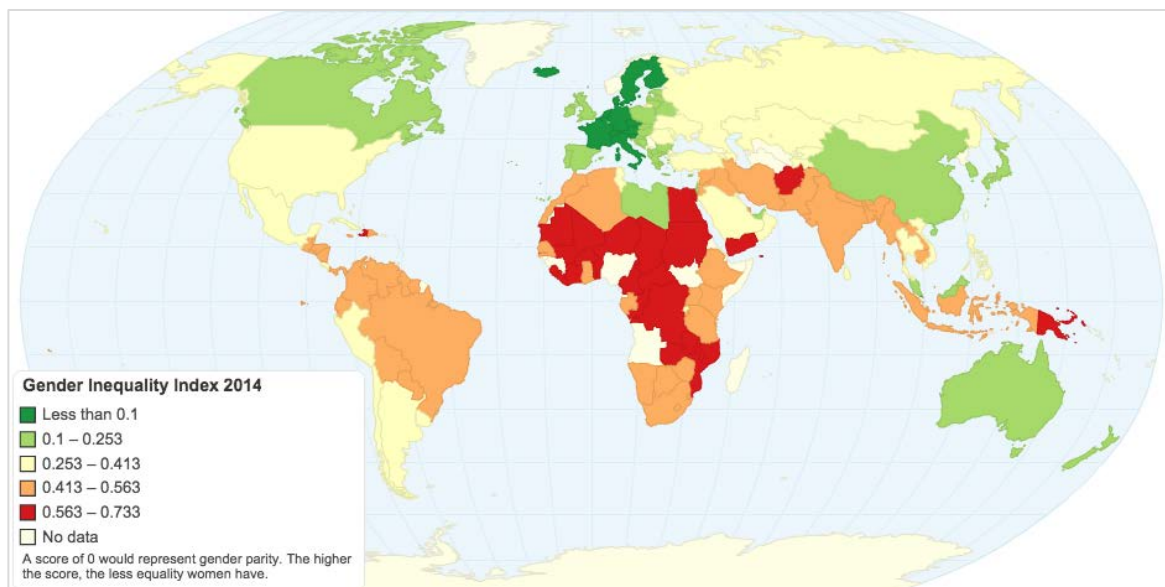


Is Gender Equality a Prerequisite for Economic Advancement?

Although GGI might be better in reflecting the magnitude of gender (in)equality than GII, both indices use a common framework to measure individual countries' gender gaps in important aspects of human development and provide rankings for cross-country and cross-region comparisons. They also provide an effective tracking system to monitor the progress towards gender equality, which governments, policy-makers and business community can draw insights from in improving their measures for closing gender gaps.

Figure 1: Gender Inequality Index 2014

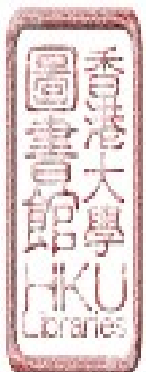
(Note: 0 = maximum equality; 1 = maximum inequality)



Data source: UNDP ¹³

According to the latest GII report (*referring to Figure 1*), the world average was 0.449, which leaned slightly more towards the equality side. The highest degree of gender inequality was found in the Sub-Saharan Africa with a regional average GII value of 0.575; whereas the lowest degree of gender inequality was in Europe and Central Asia with a regional average o

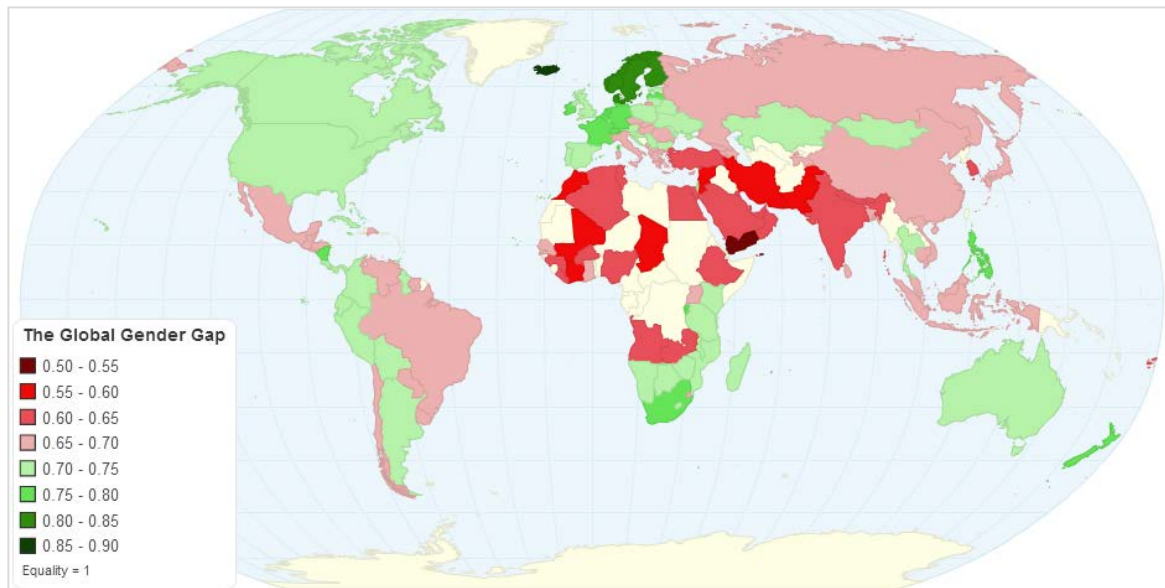
¹³ “Gender Inequality Index 2014,” *ChartsBin.com*, accessed July 22, 2016, <http://chartsbin.com/view/37302>.



0.3. At country level, gender inequality was the highest in Yemen (*GII value: 0.744*) and lowest in Slovenia (*GII value: 0.016*).

Figure 2: Global Gender Gap Index 2015

(*Note: 0 = maximum inequality; 1 = maximum equality*)



Data source: World Economic Forum¹⁴

The latest Global Gender Gap Report (*referring to Figure 2*) shows that the Nordic countries and Ireland topped the country ranking, each GGI scoring over 0.8. Again, Yemen was found having the largest gender gap, with GGI at 0.48. Regionally speaking, Europe achieved the best in closing gender gap while the gender gaps in Africa, Middle East and South Asia remained significantly large.

¹⁴ "The Global Gender Gap," *ChartsBin.com*, accessed July 22, 2016, <http://chartsbin.com/view/30092>.

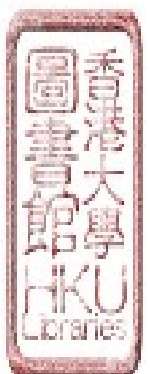
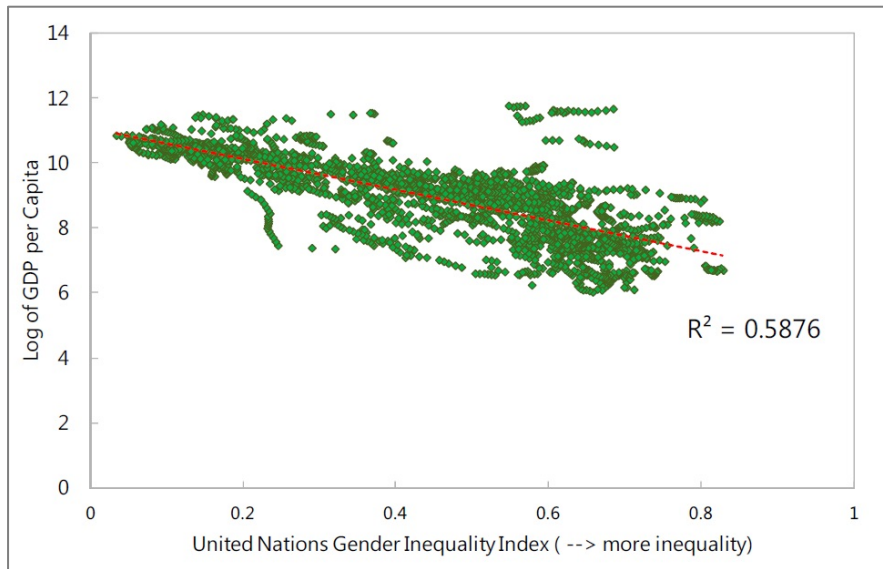
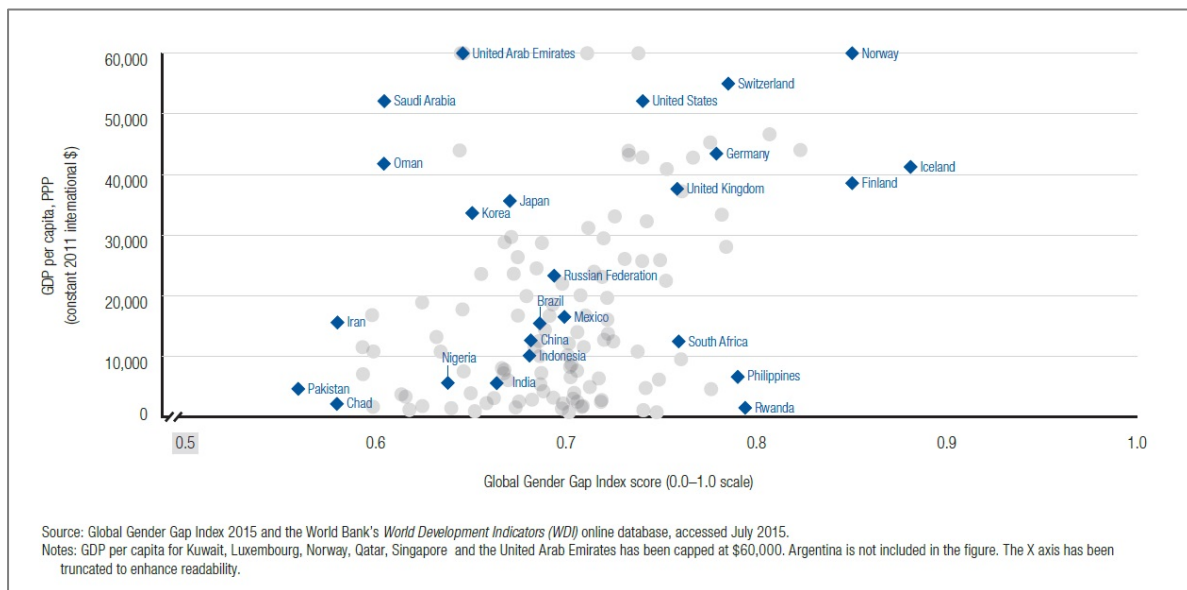


Figure 3: Gender Inequality Index 2014 vs. GDP per capita



Source: International Monetary Fund ¹⁵

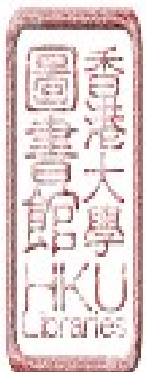
Figure 4: Global Gender Gap Index 2015 vs. GDP per capita



Source: World Economic Forum ¹⁶

¹⁵ Christian Gonzales, Sonali Jain-Chandra, Kalpana Kochhar, Monique Newiak and Tlek Zeinullayev “Catalyst for Change: Empowering Women and Tackling Income Inequality,” *IMF Staff Discussion Note* (October 2015), SDN/15/20: 5.

¹⁶ World Economic Forum, *Global Gender Gap Report 2015* (Switzerland: World Economic Forum 2015), 38.



Is Gender Equality a Prerequisite for Economic Advancement?

When plotting gender indicators against Gross Domestic Product (GDP) per capita, a positive correlation between gender equality and economic outcomes can easily be identified. As shown in Figure 3, countries with lower GII values (*i.e. higher degree of gender equality*) tended to have higher GDP per capita, and vice versa. Similarly, Figure 4 shows that the GDP per capita of countries with higher GGI values (*i.e. higher degree of gender equality*), such as Ireland, Norway and Finland, were generally higher than that of countries with lower GGI values, such as Pakistan, Iran and Chad.

Empirical data seems have proved the positive correlation between gender equality and economic development. In the following section, we will examine the reasons and mechanism behind.

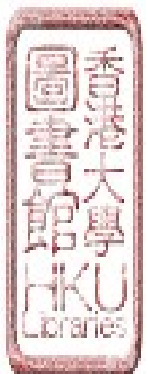
Literature Review

The landscape of this field of research is constructed upon the forceful argument, as Amartya Sen put forward, gender equality can accelerate development¹⁷. The correlation is a positive and reciprocal one¹⁸. Volumes of literature and evidence have ascertained the hypothesis that gender equality can contribute to the economic advancement by harnessing and gathering human capital, increasing labor competitiveness and releasing potential labor force from the population originally engaged in unpaid work, the major factors stated in the standard neoclassical growth model¹⁹. This trail of argument has been taken forward to suggesting that increased gender equality brings about growth due to the different consumer

¹⁷Amartya Sen, "Women's Survival as a Development Problem," *Bulletin of the American Academy of Arts and Sciences* vol. 43 (1989): 14-29.

¹⁸Janet G. Stotsky, "Gender and Its Relevance to Macroeconomic Policy: A Survey," *International Monetary Fund Working Paper*, WP/06/233 (October 2006): 48-50.

¹⁹Robert M. Solo, "A Contribution to the Theory of Economic Growth," *The Quarterly Journal of Economics* 70, no. 1 (1956): 65-94.



behaviors of women²⁰. In gist, the correlation between economic performance and gender equality in the long-run has been established as a positive one upon measuring factors contributing to the accumulation of human capitals²¹.

The linkage between gender equality and economic advancement is being further buttressed by various landmark researches, including the Klasen findings in the 1990s²² on how gender inequality might assert certain impact on growth, e.g. the selection-distortion effect.

There are, however, research suggesting that better education for women will lead to the decline in fertility rate, which will hurt the labor market in the long run or in return the lowered dependency ratio may lead to increased amount of savings, thus provide the breeding ground for economic development / upturn²³. This school of thoughts can be best concluded by Klasen's statement that "promoting gender equity in education and employment may be one of those few policies that have been termed 'win-win' strategies".²⁴

Another line of reasoning in the field of gender equality advocacy features the unique context specific factors in countries of different kind, e.g. religious background, class stratification and cultural traditions, as well as echoing with Kuznets Curve which points out

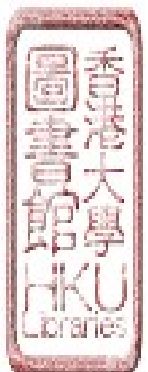
²⁰ Stephanie Seguino and Maria Sagrario Floro, "Does Gender have any Effect on Aggregate Saving? An empirical analysis," *International Review of Applied Economics* 17(2) (2003): 147-166.

²¹ Janet G. Stotsky, "Gender and Its Relevance to Macroeconomic Policy: A Survey," *International Monetary Fund Working Paper*, WP/06/233 (October 2006): 48-50.

²² Stephan Klasen, "Does Gender Inequality Reduce Growth and Development? Evidence from Cross-Country Regressions," *Policy Research Report on Gender and Development Working Paper* 7, (1999): 23-24.

²³ Stephan Klasen, "Low Schooling for Girls, Slower Growth for All? Cross-Country Evidence on the Effect of Gender Inequality in Education in Economic Development," *The World Bank Economic Review* 16(3) (2002): 345-373; and Jeffrey D. Sachs, *The End of Poverty – Economic Possibilities for Our Future* (New York: Penguin Group, 2005), 347-368.

²⁴ Stephan Klasen, "Does Gender Inequality Reduce Growth and Development? Evidence from Cross Country Regressions," *Policy Research Report on Gender and Development Working Paper* 7 (1999): 23.



that the gap might begin to close upon stabilization of the country's development. Ester Boserup brought these lines of thoughts together by suggesting a shift of focus from the economic emancipation to detailed context specific analysis²⁵.

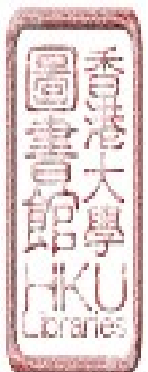
The debate on the linkage between gender equality and economic advancement / growth is not a one sided debate at all. It is noteworthy to examine Braunstein's quote that "when gender discrimination is manifested in ways that do not compromise the overall quality of the labor force but merely lower the cost of labor for employers, systematically discriminating against women can have positive effects on growth"²⁶, which is supported by the case studies of developing countries, though it would be questionable from a human rights and social justice perspective.

Research Hypothesis

As discussed previously, on the data side, it is a worldwide phenomenon that countries with higher degree of gender equality (i.e. lower GII value or higher GGI value) tend to have higher GDP per capita. On the literature side, it is also commonly agreed in the international arena, with the support of the UN, that gender equality is the driving force of economic advancement and the major rationale behind is that when women are granted more rights in education and work thus become more equal to men, they could become more independent and contribute to the economy, as a result getting out from poverty and bringing positive influence to the economy of the country. While it may sound reasonable and logical to ascertain a positive correlation between gender equality and economic advancement, this paper will try to verify a direct relationship between two at country level.

²⁵ Ester Boserup, *Woman's Role in Economic Development* (New York: St. Martin's Press, 1970).

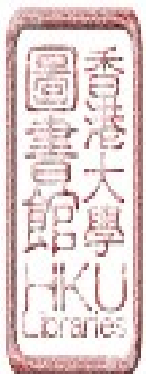
²⁶ Elissa Braunstein, "Neoliberal Development Macroeconomics – A Consideration of its Gendered Employment Effects," *UNRISD Research Paper* 2012/1 (2012): 15.



Is Gender Equality a Prerequisite for Economic Advancement?

First of all, to specify what a “direct relationship” actually refers to, this paper asks one simple question: *Is gender equality is a prerequisite for economic advancement?* “Gender equality”, literally, means that women and men are treated equally. According to the UN, “gender equality” is a human right that women and men could enjoy the same level of rights, responsibilities and opportunities, regardless of their gender. “Prerequisite”, in this paper, refers to a thing that is required as a prior condition for something to happen. For “economic advancement”, it is defined as a certain level of progress in economy, which may also be understood as “economic growth” or “economic development”. It is also important to note that negative economic growth will also be broadly discussed as part of the economic development process.

Following the above definitions, the hypothesis of this research paper is set as: **gender equality is a required prior condition for economic advancement.** While it is not possible to cover all the countries around the world in this paper, it is the intended design of this paper to present countries with different background, namely economic, political and cultural background, to differentiate the key roles and actual impact gender equality play in economic development. Four countries, two being developing countries, namely *China* and *India*, and two being developed countries, namely the *United States (US)* and the *United Kingdom (UK)*, have been chosen with a view to achieving the said purpose. These four countries are common on the ground that (1) they have a relatively sizable population, (2) they had experienced a certain extent of economic advancement over different periods of time, and (3) they are the leading economies in their respective regions and have substantial influence in the global economy. Our analysis will thus aim to prove whether gender equality is a required prior condition for the economic advancement in these four countries.



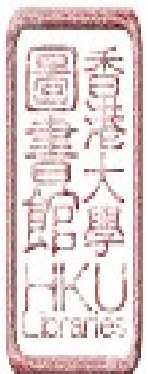
Analytical Framework

In view of the need for consistency and clarity, a common analytical framework is set to testify the hypothesis. To look at gender equality in depth, three important aspects should not be omitted. Firstly, it is the **labor participation rate** of women in general, which shows the proportion of women in the population that have joined the labor force. However, even if many women are joining the labor force, it does not necessarily mean that they are equal to men as they might only occupy low-skilled jobs and they are not paid equally for doing the same job as men. Therefore, the second important aspect is the **wage gap** between women and men, to be supplemented by the occupation category and distribution. Thirdly, it's about **education**, of which is often represented by literacy rate or sometimes enrolment rate to schools. Education, after all, is the requirement for women to join not only the labor force, but also working in higher-skilled or professional occupations. Through looking at the three major aspects that are highly related to gender equality in the four case studies, this paper aims to draw a common conclusion on whether the hypothesis is true, or it is a common perception that agreed by most people only. A short discussion on other factors that had driven the economic advancement will also be included in each case study in order to provide a more complete analysis.

Case Studies

Developing Countries

It is an incontestable fact that the economies of China and India are on the rise. As member economies of the BRIC countries, China and India have both experienced rapid economic growth in the recent decade and have been in the spotlight because of their growing economic power. China and India were only the seventh and the fourteenth largest



economies over the world 20 years ago. Nowadays, they become the second and the ninth largest economies²⁷.

In terms of gender equality, both China and India have long been identified as experiencing serious discrimination against women due to the deeply-rooted patrilineal kinship tradition²⁸. Female had been traditionally in a substantially inferior position compared with male in both countries. Case studies on China and India will serve a valuable illustration of the predicaments leading developing countries are confronted with in the current progress of globalization.

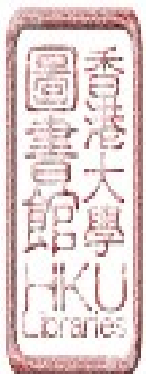
China

China features a long history of patriarchal social structure in which women were deprived of property and inheritance rights and were subjected to various forms of torture and deprivation. As of today, there is still room for improvement on China's performance on gender equality. According to the World Economic Forum, China scored 0.682 in the Global Gender Gap Index 2015. China ranked 91 out of 145 countries, which represented that China performed worse than many of its neighboring countries, including Kazakhstan (ranking 47), Thailand (ranking 60), Bangladesh (ranking 64) and Vietnam (ranking 83)²⁹. In the following part, we will analyze whether China has made any significant improvements on gender equality before attaining its economic advancement to become the second largest economy in the world.

²⁷ "GDP at market prices (current US\$) (2015)," *World Bank*, accessed June 12, 2016 <http://data.worldbank.org/indicator/NY.GDP.MKTP.CD>.

²⁸ Kartik Chandra Roy, Hans-Christer Blomqvist, Cal Clark, *Economic Development in China, India and East Asia: Managing Change in the Twenty First Century* (Cheltenham: Edward Elgar Publishing, 2012), 176.

²⁹ "Global Gender Gap Index 2015 Rankings," *World Economic Forum*, accessed June 12, 2016 <http://reports.weforum.org/global-gender-gap-report-2015/rankings/>.



Is Gender Equality a Prerequisite for Economic Advancement?

To testify the case of China, we will need to first analyze during which period China experienced the most rapid economic growth. China's economic reform and opening-up is divided into five stages³⁰ – (a) setting up the special economic zones in the 1970s; (b) opening up the coastal cities and developing the delta regions since the 1980s; (c) creating the economic development zones in the 1990s; (d) accessing to the WTO in the 2000s; and (e) launching the pilot Free Trade Zones in the 2010s. The rise of China in terms of economic advancement surfaced in 2005 when China became a member in the WTO. Therefore, women's condition across the country before and after this critical juncture may unveil the bidirectional relationship between gender equality and economic development.

We can also observe the pattern of economic growth in China through statistical data. Figure 5 shows the change in GDP of China since 1990. Compared with the steady economic growth in the 1990s, it is obvious that starting from the early 2000s, the GDP of China has been experiencing a drastic and rapid increase, from USD1.21 trillion in 2000 to USD10.35 trillion in 2014, representing an increase by more than USD9 trillion in just 14 years. During this period, China transformed itself from a tier-two state which contributed only 3.6% to the world's GDP in 2000 into a tier-one power which became the second largest economy over the world and contributed more than 13% to the global GDP in 2014³¹.

³⁰ Jackie Wu, "Free economic and trade zones in the Mainland (Part 1)," HKSAR Legislative Council Research Publications, ISE03/15-16 (2015), accessed June 19, 2016, <http://www.legco.gov.hk/research-publications/english/essentials-1516ise03-free-economic-and-trade-zones-in-the-mainland-part-1.htm>.

³¹ Government of Japan, Nominal GDP international comparison among the top 11 largest economies between 1996 and 2014, accessed June 19, 2016, http://www.esri.cao.go.jp/jp/sna/data/data_list/kakuhou/files/h26/sankou/pdf/kokusaihihaku20151225.pdf.

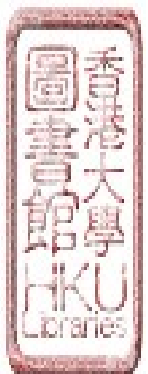


Figure 5: Change in GDP of China from 1990 to 2014

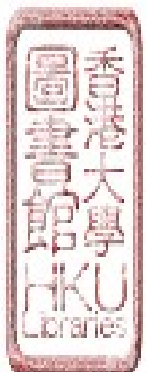


Data source: World Bank ³²

We can also analyze the change in GDP of China in detail by comparing its growth in every five years since 1990. As shown in Table 2, the GDP of China in 1990 was just USD0.36 trillion and ranked 11th over the world. From 1990 to 1995, China's GDP had doubled to USD0.73 trillion and became the eighth largest economy in the world. In the following five years, the GDP of China further increased by a mild 66% to USD1.21 trillion in 2000, ranking sixth in terms of the world's largest economy. From 2000 to 2005, China continued to experience a steady GDP growth by 88%, passing France to become the fifth largest economy.

The period from 2005 to 2010 was the golden age of China's economic growth. In these 5 years, China's GDP had surged by USD3.77 trillion, representing a 1.66 times increase. China replaced Japan in 2010 to become the largest economy in Asia and the second largest economy over the world, after Japan taking this place in the past 42 consecutive years. With such a significant economic growth, China has been in the spotlight and the terms "rise

³² "GDP at market prices (current US\$) (2015)," *World Bank*, accessed June 12, 2016, <http://data.worldbank.org/indicator/NY.GDP.MKTP.CD>.



of China” and “the next superpower” became more and more popular among the western powers which considered China as a threat.³³ China’s economy continues to grow rapidly after 2010 and had increased by 71% in the following four years. In 2014, the GDP of China was even higher than the sum of GDP of Japan and Germany which were the third and fourth largest economies over the world.

Table 2: Change in GDP of China from 1990 to 2014

Year	GDP of China (trillion USD)	% change compared to the previous five years	World GDP ranking
1990	0.36	+ 17%	11
1995	0.73	+103%	8
2000	1.21	+66%	6
2005	2.27	+88%	5
2010	6.04	+166%	2
2014	10.35	+ 71%	2

Data source: World Bank³⁴

We can also observe a similar pattern in terms of the percentage of China’s contribution to the world’s GDP as shown in Figure 6. While China’s contribution to the total GDP over the world had kept increasing gradually from 2.7% in 1996 to 3.6% in 2000, and to 4.8% in 2005, the rate of increase raised sharply since 2005. In 2014, China already contributed 13.1% of the world’s GDP.

³³ Denny Roy, *Return of the Dragon: Rising China and Regional Security* (Columbia: Columbia University Press, 2013), 1-3.

³⁴ “GDP at market prices (current US\$) (2015),” *World Bank*, accessed June 12, 2016, <http://data.worldbank.org/indicator/NY.GDP.MKTP.CD>.

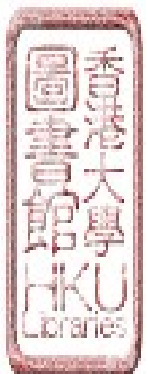
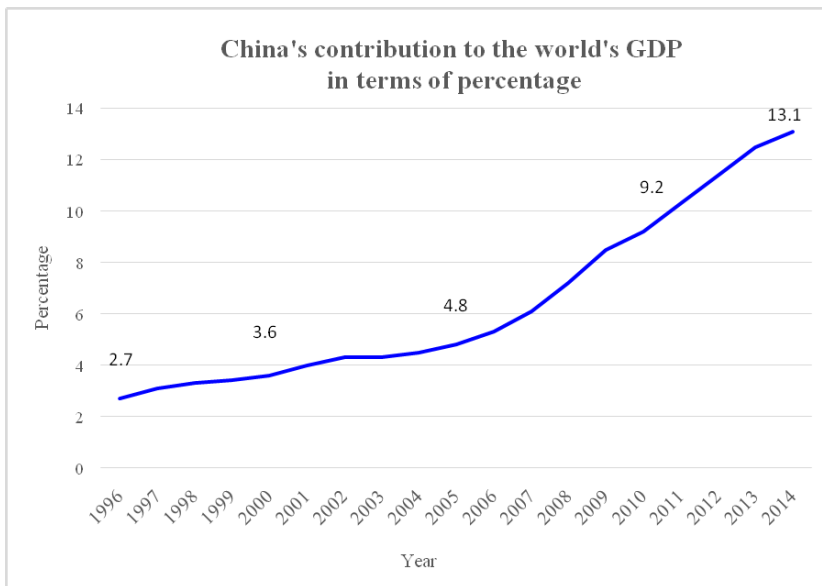


Figure 6:



Data source: Government of Japan ³⁵

The above data also shows that while the economy of China has kept growing in the recent two decades, China's economy experienced the most significant growth starting from 2005. In considering whether achieving gender equality is a prerequisite for economic advancement in the case of China, the following part will examine the condition of gender equality in China and the changes during this period.

Labor participation rate

We will first consider the labor participation rate of men and women in China in the past two decades. Female labor participation rate has been commonly used by different organizations as one of the indicators in calculating the relevant indices of gender equality, in particular indices related to the economic status of women.

³⁵ Government of Japan, Nominal GDP international comparison among the top 11 largest economies between 1996 and 2014, accessed June 19, 2016, http://www.esri.cao.go.jp/jp/sna/data/data_list/kakuhou/files/h26/sankou/pdf/kokusaihikaku20151225.pdf.

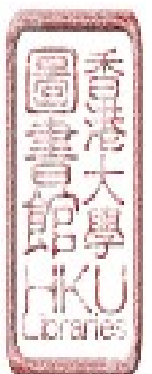
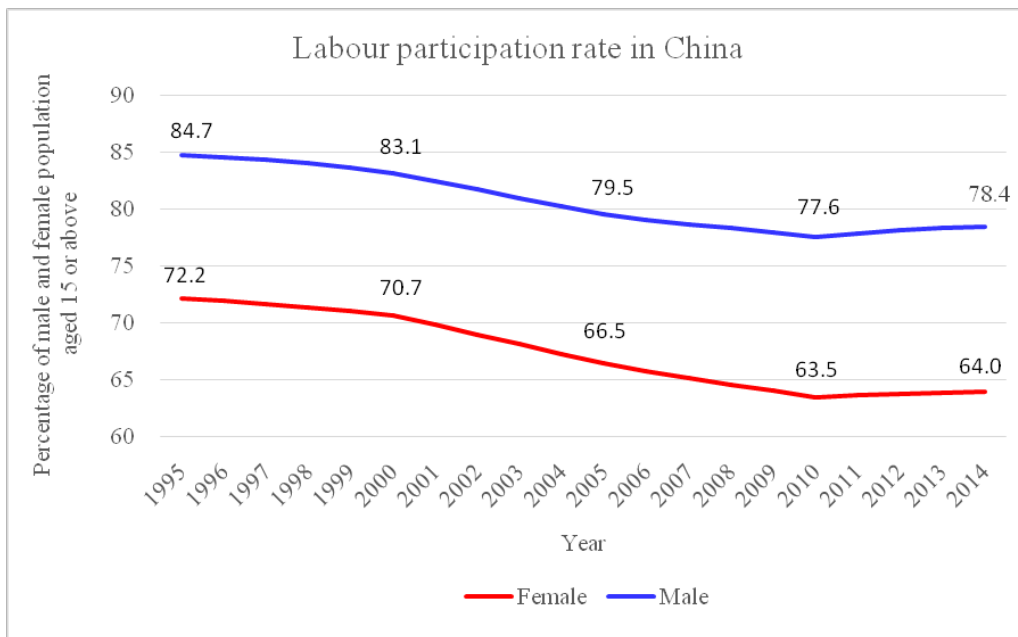


Figure 7:

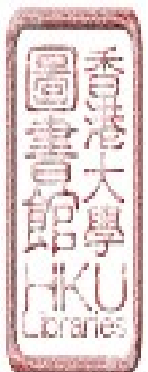


Data source: World Bank ³⁶

As shown in Figure 7, the labor participation rates for both men and women in China have been decreasing since 1995, despite China's economic growth over the same period. Such a continuous drop in the labor participation rate is mainly due to two major reasons. The first reason is that the school years for the new generation in China have been extended. Hence, the labor participation rate for the young working population has been decreasing. Another reason is the ageing population due to the increasing longevity as well as the declining fertility. The proportion of retired population in China drastically increases and as a result lowers the labor participation rate³⁷. Therefore, in examining gender equality in terms of labor participation rate, we will consider the changes in the difference of labor participation rate between men and women.

³⁶ "Labor force participation rate, female / male (% of female / male population ages 15+) (modeled ILO estimate)," *World Bank*, accessed June 19, 2016, <http://data.worldbank.org/indicator/SL.TLF.CACT.FE.ZS/countries>.

³⁷ Ping Zhang, Xiahui Liu, Fuhua Yuan, Ziran Zhang, *Annual Report on China's Economic Growth Macroeconomic Trends and Outlook*(Springer, 2016):13.



Is Gender Equality a Prerequisite for Economic Advancement?

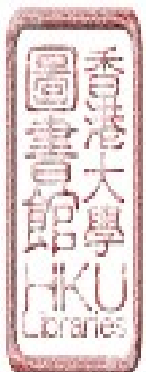
In 1995, the difference of labor participation rate between men and women was 12.5%. However, such difference was getting larger and larger over the years and in 2005, the female labor participation rate in China was already 13.0% lower than that for male. Such a difference continues to increase and in 2014, the female labor participation rate in China was 14.4% lower than that for male. Only 64% of women aged 15 or above in China were working in 2014, compared with a much higher 72% in 1995. In short, the difference of labor participation rate between men and women in China has been getting larger and larger in the past 20 years.

As suggested in the last section, the economy in China has experienced the most significant growth starting from 2005. In respect of female labor participation, China did not achieve gender equality before 2005, as shown from the fact that the female labor participation rate in China was 13% lower than that for male, which was even worse than the situation five years ago. After the boost to China's economy since 2005, the gap between male and female labor participation rate did not decrease. Instead, the female labor participation rate continues to drop at a higher rate than that of male.

Wage gap

While the female labor participation rate in China keeps decreasing after the rapid economic growth since 2005, we should also consider whether income earned by the female labor force in China is indeed increasing, hence narrowing the salary difference between male and female workers.

Starting from 2006, the World Economic Forum has been annually gathering data from its Executive Opinion Survey to obtain the ratio of estimated female-to-male earned income and transformed the data into a score, namely wage equality for similar work, fo



each country. The score of 0 represents absolute inequality while 1 represents absolute equality. The higher score a country obtains represents that a higher degree of gender equality is achieved by that country in this aspect.

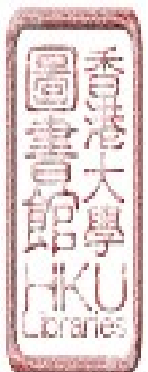
Figure 8 shows the wage equality for similar work score for China. In 2006, i.e. when China started its rapid economic growth, it only scored 0.61, ranking 68 out of 115 countries. The score improved a lot in the following two years and attained 0.74 in 2008, ranking 29 out of 130 countries. However, the score kept decreasing in the following years and dropped to the lowest point of 0.61 in 2014, ranking 77 out of 142 countries. The data shows that China did not achieve wage equality before its economy boosted in 2005. Besides, the wage equality for China actually fluctuates over the years when China's economy continues to grow rapidly since 2005.

Figure 8:



Data source: World Economic Forum³⁸

³⁸ “Wage equality for similar work in China,” *World Economic Forum*, accessed June 25, 2016 <http://reports.weforum.org/global-gender-gap-report-2015/economies/#economy=CHN>.



Data from China's national surveys on the social status of women also shows similar pattern. From 1990 to 2010, there has been a growing gender disparity in terms of income between men and women in the labor market. The average income of female workers in urban areas was 22.5% less than male workers in 1990. However, urban female workers earned 32.7% less than male workers in 2010. The situation was even worse for women in rural areas. Rural women earned 21% less than men in 1990, but earned 44% less in 2010.³⁹ It shows that despite the continuous economic growth in China since 1990, the wage level between male and female workers in China did not become more equal. Instead, the disparity is getting greater and greater.

Literacy rate

Apart from participation in the labor market, education is another important aspect when we examine gender equality. Figure 9 shows the literacy rate (female to male ratio) in China from 2006 to 2015. In 2006 when China was at the beginning stage of its swift economic growth, the ratio was 0.91, representing that while male literary rate was 95%, the rate for female was only 87%. China only ranked 81 out of 115 countries in 2006. The ratio has been increasing since 2007, showing that the female literacy rate in China has been getting closer to that of male. In 2015, China's ratio increased to 0.96. While the male literacy rate slightly increased to 98%, the female literacy rate recorded a notable increase to 94% in 2015. Therefore, China did not achieve gender equality in terms of literacy rate before 2005, but kept improving when it experienced the rapid economic surge since 2005.

³⁹ Bohong Liu, Ling Li, Chunyu Yang, *Gender Equality in China's Economic Transformation* (UN System in China, 2014), 18-21.

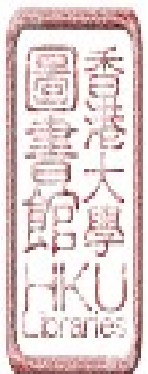
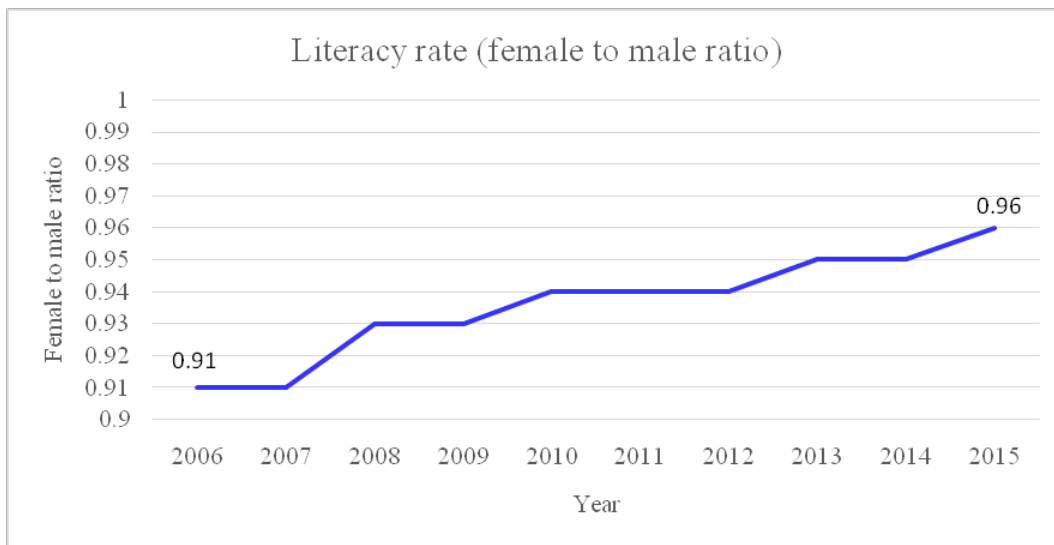


Figure 9:



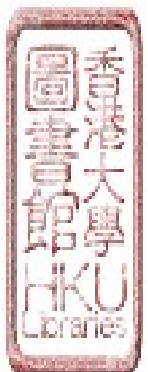
Data source: World Economic Forum ⁴⁰

Apart from analyzing the statistical data, we are also going to consider the gender equality issue of China from the legal perspective. According to China's periodic report submitted to the UN Committee on the Elimination of Discrimination against Women in 2004 (i.e. one year before the significant economic upsurge of China as identified in the earlier part), the Chinese Government has been developing and refining laws on protecting women's rights in compliance with the international laws⁴¹.

One of the most essential legislations in China protecting the rights of women is the *Law on the Protection of Rights and Interests of Women* adopted in 1992 and amended in 2005. Regarding women's right to work, Chapter IV of the Law provides detailed and comprehensive protection for women. Relevant articles include "22. The State guarantees that women enjoy equal rights, with men, to work."; "23. With exception of the special type:

⁴⁰ "Literacy rate (female to male ratio) in China," *World Economic Forum*, accessed June 25, 2016 <http://reports.weforum.org/global-gender-gap-report-2015/economies/#economy=CHN>.

⁴¹ People's Republic of China, *Consideration of reports submitted by States parties under article 18 of the Convention on the Elimination of All Forms of Discrimination against Women – Combined fifth and sixth periodic report of States Parties* (2014), 4.



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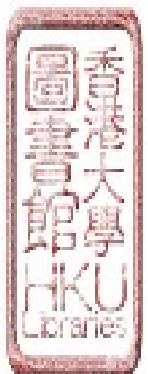
of work or post unsuitable to women, no unit may, in employing staff and workers, refuse to employ women by reason of sex or raise the employment standards for women.”; “24. Equal pay for equal work shall be applied to men and women alike.”; “27. No unit shall reduce the salaries or wages of female workers and staff members, or dismiss them, or unilaterally cancel the labor (or employment) contracts or service agreements with them because they are married, pregnant, on maternity leave or breast-feeding”⁴². Compared to the developed countries such as the US, the coverage of the above articles are largely similar to the Equal Pay Act, the Civil Rights Act of 1964, and the Family and Medical Leave Act of 1993 adopted by the US (as detailed in the later part of this report).

While the legislation provides a detailed coverage of protection of women’s right, there has been questions about the implementation of the Law. As such, an internal review was conducted in 2002 by the National People’s Congress and it was concluded that there was visible progress on protection of the rights of women in China⁴³. However, there is still doubt on whether the Law is effectively implemented in China. For example, the UN Committee on the Elimination of Discrimination against Women expressed its concern over China in 2006 that no legal provision was available for effective legal remedies and there was limited access to justice for women, essentially for women in rural areas of China. The Committee also raised its concern that the *Convention on the Elimination of All Forms of Discrimination against Women* had never been invoked in the China’s court of law⁴⁴. In gist, there is no evidence that China attained gender equality in terms of legal protection before its rapid economic growth in 2005.

⁴² People’s Republic of China, *Law on the Protection of Rights and Interests of Women* (2005) accessed July 24, 2016, <http://www.china.org.cn/english/government/207405.htm>.

⁴³ People’s Republic of China, *Consideration of reports submitted by States parties under article 18 of the Convention on the Elimination of All Forms of Discrimination against Women - Combined fifth and sixth periodic report of States Parties* (2014), 5.

⁴⁴ UN Committee on the Elimination of Discrimination against Women, *Concluding comments of the Committee on the Elimination of Discrimination against Women* (2016), 3.

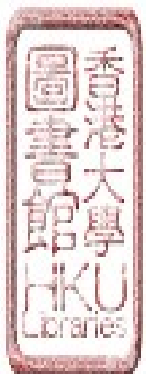


Is Gender Equality a Prerequisite for Economic Advancement?

After analyzing various factors related to gender equality, it appears that they are not the major factors leading to the rapid economic growth in China after 2005. Then what are the real reasons behind? It is believed that the major factor is the joining of the WTO in 2001. As suggested by a study from the World Bank, the impact of China joining the WTO has been significant. Not only did the joining of WTO provide a clear roadmap for China to undertake trade reforms in many different aspects from industrial structure to trade patterns, it also guided China to steadily transform its economic and trade regime from plan to market. After China joined the WTO, its markets for exports significantly expanded; its supply of exports into markets of other countries increased; and both the investment inside China and outward investment from China have also been expanded⁴⁵.

To summarize our findings above, the female labor participation rate in China was substantially lower than that for male before China's economy started to boost rapidly in 2005, and the situation has been getting even worse after 2005. Besides, China did not achieve wage equality before 2005, and the wage equality gap for China fluctuates since 2005. In terms of education, the female literacy rate was much lower than the male literacy rate before 2005, although the literacy rate gap has been narrowing after 2005. The above analysis showcases that for the case of China, the country did not eliminate the discrimination against women to achieve gender equality before it attained its rapid economic growth from 2005. Therefore, the notion emphasized by the UN that "gender equality" as a prerequisite for the "economic advancement" seems to be inconsistent with the actual scene for China.

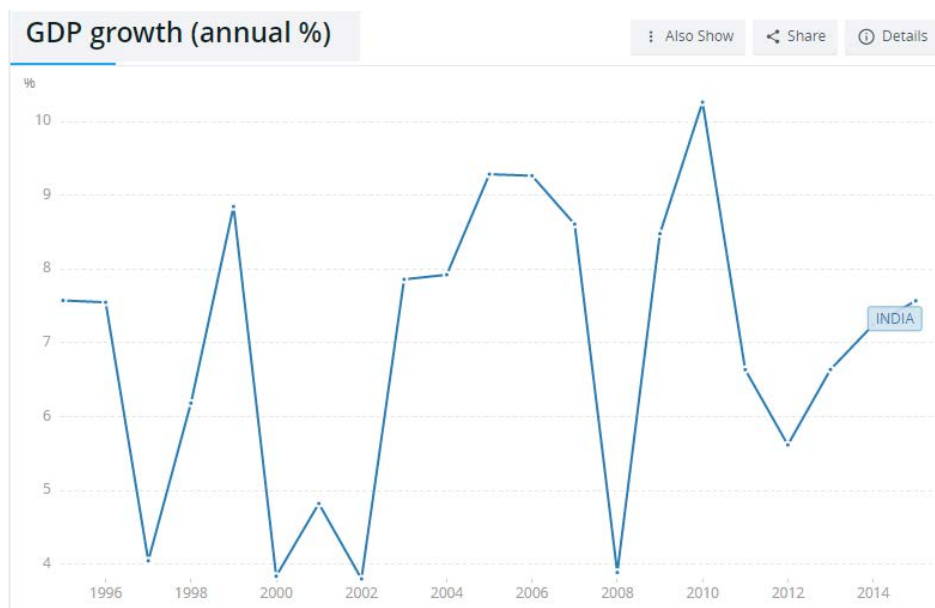
⁴⁵ Will Martin, Deepak Bhattasali, and Shantong Li, "China's Accession to the WTO: Impacts on China," in *East Asia Integrates: A Trade Policy Agenda For Shared Growth* (World Bank, 2003) 35-56.



India

In the same spirit, we will now investigate the gender situation in India during the period that the country experienced the fastest economic advancement. Despite that the absolute growth magnitude of India's GDP lagged far behind China, the country experienced a similar growth pattern. Her economic growth in the past 25 years was still very remarkable. Statistics from World Bank indicated the following annual GDP growth of India since 1990⁴⁶. The GDP growth rate consistently hovered around 6 to 7% and this trend is expected to continue for many years to come. Even during the gloomy times when the global economy was badly hit by different troubles, India could still outperform other economies with a growth rate stood at about 4%.

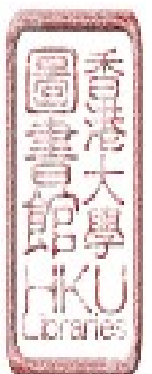
Figure 10:



Source: World Bank⁴⁷

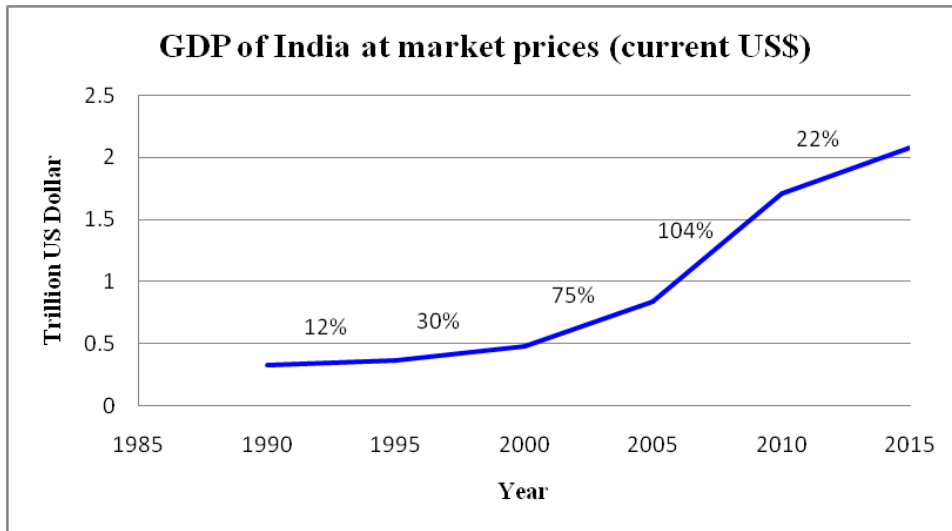
⁴⁶ "GDP Growth (annual %)," *World Bank*, accessed July 27, 2016, <http://data.worldbank.org/indicator/NY.GDP.MKTP.KD.ZG?locations=IN>.

⁴⁷ *Ibid.*



Comparing with other developing economies, this growth rate may not seem appealing. However, if we look at another graph showing how the GDP exponentially expanded, the economic advancement of India appeared amazing.

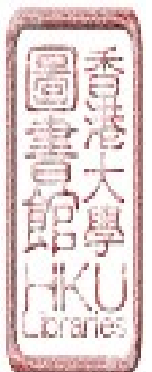
Figure 11:



Source: World Bank ⁴⁸

This set of statistics, also from World Bank shows how India's GDP increased rapidly since 1990. Back then, the GDP was just about 0.4 trillion which continued through 1996. In only twelve years' time, India managed to quadruple its GDP, pushing it from USD0.5 trillion to over USD2 trillion and became the seventh largest economy in the World. India has been given unprecedented confidence because of this steady and reliable growth pattern, as well as its successful economic transformation. The past thirteen years' time was apparently the golden age of India's economic growth.

⁴⁸ "GDP (current US\$)," *World Bank*, accessed July 27, 2016, <http://data.worldbank.org/indicator/NY.GDP.MKTP.CD?locations=IN>.



To single out a period in which India experienced highest growth, we will take five years from 1990 as a period. The following table shows the change in past 25 years with five years as a unit.

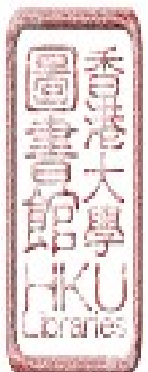
Table 3: Change in GDP of India from 1990 to 2015

Year	GDP of India (trillion USD)	% change compared to the previous five years	World GDP ranking
1990	0.33		13
1995	0.37	12%	16
2000	0.48	30%	14
2005	0.84	75%	14
2010	1.71	104%	10
2015	2.08	22%	7

Source: World Bank ⁴⁹

It can be easily referred from the graph that 2005 to 2010 was the period that India experienced the most significant growth. Its GDP doubled in just five years prompted by many favorable economic factors. For instance, it has a tremendous market, a young and big population as well as many unexplored business opportunities. This vast growing potential and the continuous trend enticed many businessmen, economists, policy makers and etc. to constantly investigate how these advantages can be translated into even faster economic growth. Female labor participation is one of the bright spots, which has been widely studied. However, different gender reports repeatedly point towards the striking fact that gender equality is not demonstrating a proportionate growth with the Indian economy over

⁴⁹ "GDP (current US\$)," *World Bank*, accessed July 27, 2016, <http://data.worldbank.org/indicator/NY.GDP.MKTP.CD?locations=IN>.



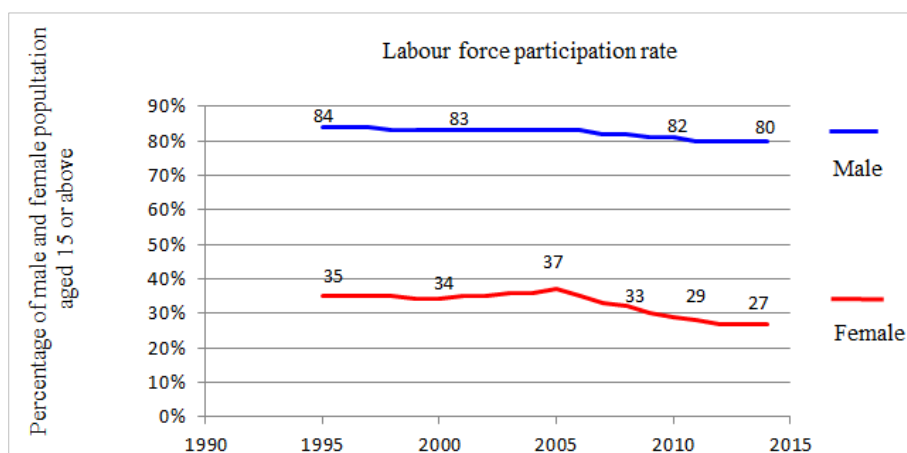
the years. India is among the ten largest economies in the world. Yet, the latest UN statistics indicated that among the 188 countries, India ranked 130 in Gender Inequality Index⁵⁰.

Labor force participation

The labor force participation rate of women is particularly disappointing in India. Merely 27% of the female aged 15 or older has participated in the job market, far lower than its counterparts with a similar economic scale⁵¹. According to an Oxfam report, India is the second lowest in the G20 economies in terms of female labor participation⁵².

Another worth noting trend is that the labor participation rate of Indian women aged 15 or above is declining over the past 20 years, from 35% in 1996 to 27% in 2016, according to the World Bank⁵³.

Figure 12:



Source: World Bank

⁵⁰ "Table 5: Gender Inequality Index," *UNDP*, accessed July 27, 2016, <http://hdr.undp.org/en/composite/GII>.

⁵¹ *Ibid.*

⁵² Diksha Madhok, "India's Record in Women's Participation in the Workforce Is Depressing," *Quartz India*, July 22, 2014, accessed July 27, 2016, <http://qz.com/238484/indias-record-in-womens-participation-in-the-workforce-is-depressing/>.

⁵³ "Labor Force Participation Rate, Female (% of Female Population Ages 15) (modeled ILC Estimate)," *World Bank*, accessed July 27, 2016. <http://data.worldbank.org/indicator/SL.TLF.CACT.FE.ZS?locations=IN>.



Is Gender Equality a Prerequisite for Economic Advancement?

For the period of 2005 to 2015, the labor force participation rates of both female and male were slowly decreasing. The large gap between two genders showed the alarming fact that gender equality in the aspect of labor force participation is very disappointing. Worse still, it appears that the female's participation rate drops at a large extent than male. Taking a close look at the data, in 2005, the difference between labor force participation rates was 46%. By 2015, the difference has increased to 53%.

It is worth noting that, as research reports, new articles, commentaries have recognized, the potential contribution by Indian women if fully engaged at work to GDP is too big to be ignored and the country will continue to thrive with the participation of this new source of labor. McKinsey estimated that Indian women's contribution to national GDP is only 17% now, much lower than the global average of 37%⁵⁴. A much-balanced female labor force can no doubt enable the country to unleash its full potential by filling the gap. If there is a balanced representation of Indian female and fully bridged gender gap in the job market, estimation by the same McKinsey report suggested that, India can have an additional annual GDP of USD2.9 trillion in 2025, narrowing much its distance from the developed economies such as Japan and Germany.

Wage gap

Women generally earn 50% to 60% of the wage earned by men for performing the same work. To have a consistent comparison, we will compare the wage gap between two genders in India using the same set of data from World Economic Forum as in China's case. The following graph shows the score of wage equality for similar work for India.

⁵⁴ "The Power of Parity: Advancing Women's Equality in India," *McKinsey & Company*, November 2015, accessed July 27, 2016, <http://www.mckinsey.com/global-themes/employment-and-growth/the-power-of-parity-advancing-womens-equality-in-india>.

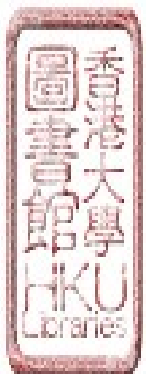
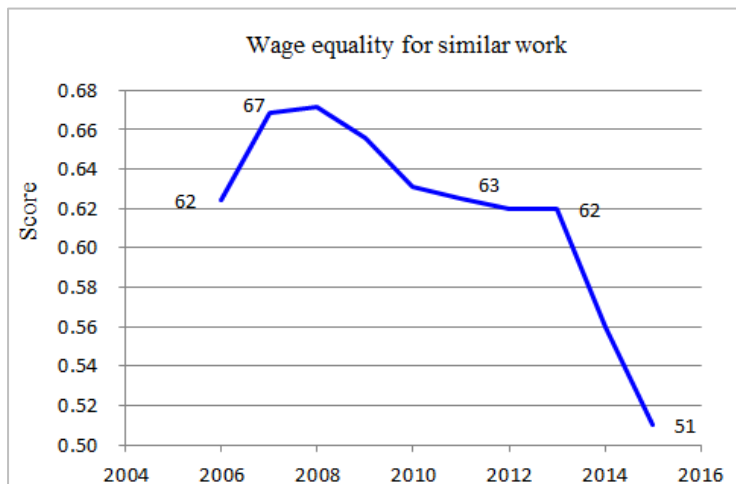


Figure 13:



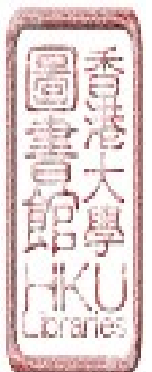
Source: Global Gender Report 2006-2015, World Economic Forum⁵⁵

Unlike the pattern in China which has been fluctuating over the years, India demonstrated a decreasing trend for the period of 2006 to 2015, from 0.62 to 0.51, representing a decrease of 18%. The lower the number, the poorer the equality. Hence, the gender wage gap in India is deteriorating. The unfair treatment to female workers intensifies as the education level rises. The more educated a woman is, the wider the gender pay gap is. The percentage difference reached 80% or above after master level, and was as high as 180% at the Postdoctoral level. Surprisingly, the marital status is also another factor affecting the gender pay gap. It has been revealed that for those never married, the gap was the smallest. Married or divorced women had same degree of underpaid gap. The widowed women were treated most unequally with a 60% less pay⁵⁶.

Receiving a lower pay does not mean that Indian female population has a smaller amount of work or less working hours. The number of working hours and amount of work also shed light on the situation of gender inequality. An advertisement earlier this year has

⁵⁵ "Global Gender Report," *World Economic Forum*, accessed July 27, 2016, <http://reports.weforum.org/global-gender-gap-report-2015/economies/#economy=IND>.

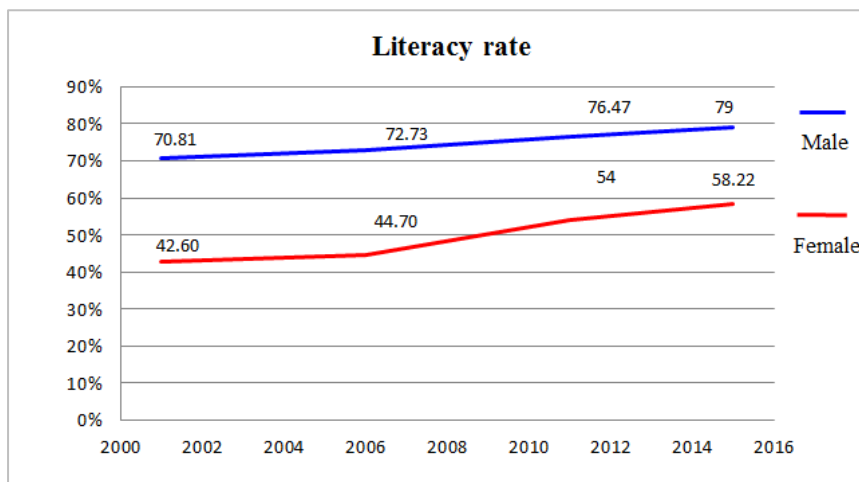
⁵⁶ "Women in the Workforce: India," *Catalyst*, November 17, 2015, accessed July 27, 2016, <http://www.catalyst.org/knowledge/women-workforce-india>.



aroused much controversy and caused the Indian families to reflect not only on the challenges facing working Indian women but also on the amount of unpaid works borne by them⁵⁷. All in all, Indian women are working much longer than men if unpaid household works are taken into consideration. A recent McKinsey report pointed out that Indian woman in general performed almost ten times the amount of unpaid care work than man, far above the global average of roughly three times⁵⁸. This extremely inequitable sharing of informal and unpaid works among the men and women is prevalent in different parts of the India, both rural and urban. If these unpaid works are taken into account and reflected by wage figures, the gender inequality in Indian society will be even more serious.

Literacy rate

Figure 14:

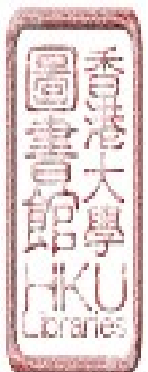


Source: United Nations⁵⁹

⁵⁷ "Ad of the Day: A Father's Touching Apology to His Daughter Highlights the Struggles of Working Mothers," *AdWeek*, February 25, 2016, accessed July 27, 2016, <http://www.adweek.com/news/advertising-branding/ad-day-fathers-touching-apology-his-daughter-highlights-struggles-working-mothers-169871>.

⁵⁸ "The Power of Parity: Advancing Women's Equality in India," *McKinsey & Company*, November 2015, accessed July 27, 2016, <http://www.mckinsey.com/global-themes/employment-and-growth/the-power-of-parity-advancing-womens-equality-in-india>.

⁵⁹ "Education: Literacy Rate," *United Nations*, accessed July 27, 2016, <http://data.uis.unesco.org/Index.aspx?queryid=166>.

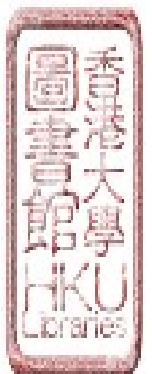


Is Gender Equality a Prerequisite for Economic Advancement?

Figure 14 shows the literacy rate of population aged 25 to 64 in India. The growth trend of male literacy rate has been quite steady, from 72.73% in 2006 to 79% in 2015, demonstrating a growth of 6% in nine years' time. On the female front, there was a slight increase during the period of 2006 to 2011 which did not affect the overall growth trend. The literacy improved quite well, from 44.7% in 2006 to 58.22% in 2015. In nine years' time, it increased by 13.5%. It appears that female literacy rate is catching up, the gap was 28% back in 2001, and it reduces to about 20% nowadays. Despite this promising improvement, there is still a substantial difference in the literacy rate between the two genders which may take another 30 years or so to be equal by extrapolating the current trend. The deep rooted belief that male is superior to female is an apparent reason for such a difference.

To conclude the statistical findings above, the gender condition in India is quite similar to China. Female labor force participation rate decreases at a greater extent than that of male, causing a wider gap starting from 2005. Wage equality also showed no sign of improvement. While situation varies by different social groups, for instance, due to their education level and marital status, the trend is directing to an even more unequal situation. As expected, the literacy rates of both male and female are improving. However, a large gap still exists which will take many years to be bridged. Against the backdrop of India's robust economic growth from 2005 until present, the development of gender equality, in particular, the employment aspect is too weak to prove that it has a significant role to play in driving economic advancement.

Putting the statistics aside, there are some fundamental issues which are adversely affecting the gender progress in India which require imminent actions from the government. Occupational segregation is one of them. The Planning Commission of the India

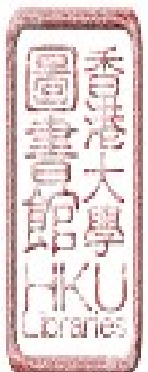


Government has been tracking the sector-wise contribution of India GDP since 1950s⁶⁰. Agriculture, Industry and Services are the three major sectors. The trend of each sector was quite consistent over the past 60 years with the agricultural sector dropping, industry sector increasing and services sector increasing as well. In 1950s, agricultural sector contributed the most to the Indian economy at about 52% whereas services sector and industry sector contributed about 33% and 15% respectively. The services sector has increased steadily since then and reached 50% in late 1990s. Nowadays, the services sector accounts for close to 60% of the GDP. Because of the global economic downturn after the financial tsunami, industry sector has dropped slightly from 30% to 25%. The share of agricultural sector stood at about 17% over the past few years. India's economy is transforming very successfully, but women are still facing a serious occupational segregation problem. An earlier report by the National Sample Survey Organization, India's official agency for gathering key statistics, pointed out among the nine fields in which Indian women commonly work, agriculture remains the most prominent sector which employed about 60% of the Indian working female⁶¹. Therefore, when the global economy becomes more and more knowledge intensive and service sector continues to dominate the India GDP, we can reasonably expect that more employment opportunities will be granted to the better educated male population which will in turn hinder the development of the country's gender equality.

Surprising as it may seem, the Indian legislation is another hindrance to promoting gender equality in the labor market. The Indian Constitution has various Articles to uphold the interest of working female population, for instance, Article 39(d) in *The Constitution Of*

⁶⁰ "Sector-wise Contribution of GDP of India," *Planning Commission, Government of India*, July 8 2015, accessed July 27, 2016, <http://statisticstimes.com/economy/sectorwise-gdp-contribution-of-india.php>.

⁶¹ "By the Numbers: Where Indian Women Work," *Wall Street Journal*, November 14, 2012, accessed July 27, 2016, <http://blogs.wsj.com/indiarealtime/2012/11/14/by-the-numbers-where-indian-women-work/>.



India 1949⁶² and the *Equal Remuneration Act of 1976*⁶³ stated clearly that there should be equal pay for equal work for both men and women. There were also *Workmen's Compensation Act* in 1923 and *Contract Labour (Regulation and Abolition) Act* in 1970⁶⁴. In fact, Indian labor laws have long been regarded as stringent comparing with other developing countries. Government permission has to be sought for any decision which will potentially harm the interest of a group of employees. A study back in 2010 showed the strict Indian labor laws contributed to rigid employment terms and resulted in greater informal sector and more casual workers⁶⁵. The female labor force who are in an inferior position and has a smaller chance to get a job in formal labor market resort to informal or unrecognized works which will not be captured in GDP. This further aggravates the gender condition in the labor market as female population is generally considered to be less productive⁶⁶. It is worth noting that as India's economy follows the global trend to become more knowledge intensive, those disadvantaged female labor force will soon be marginalized if they are unable to supply the knowledge and skills required in the job market. Therefore, despite under the umbrella of Constitution's protection, Indian working women, on the contrary, suffer and risk being marginalized.

Quite obviously, gender equality was not the drive to India's economic advancement. Then what were the sources of drive? After further research, we have observed several forces. Firstly, the success of economic reform measures. Liberalization, privatization and

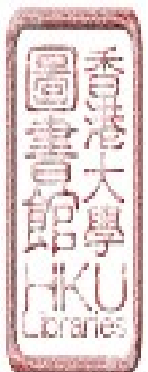
⁶² "THE CONSTITUTION OF INDIA," *Ministry of Law and Justice*, accessed July 27, 2016. <http://lawmin.nic.in/olwing/coi/coi-english/coi-indexenglish.htm>.

⁶³ "Equal Remuneration Acts and Rules, 1976," *Ministry of Labour & Employment*, accessed July 27 2016, <http://labour.gov.in/womenlabour/equal-remuneration-acts-and-rules-1976>.

⁶⁴ "Gender Pay Gap in India. Why Women Earn Less than Men, Gender Pay Gap, Pay Disparity in India," *PayCheck.in*, accessed July 27, 2016, <http://www.paycheck.in/main/world-map-gender-pay-gap/gender-pay-gap-in-india-1>.

⁶⁵ Sen, K., B. Saha and D. Maiti. *Labour Market Institution and Flexibility in Indian Manufacturing* (Manchester: University of Manchester, 2010).

⁶⁶ Sonali Das, Sonali Jain-Chandra, Kalpana Kochhar, and Naresh Kumar, "Women Workers in India Why So Few Among So Many?," IMF Working Paper, WP/15/55 (2015).

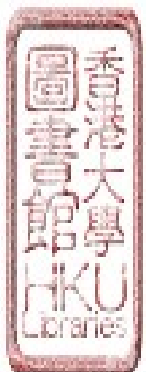


globalization are high on the global economic agenda nowadays. India will continue to shine as the global economy becomes more knowledge intensive. China has made a great fortune ever since it has decided to open up its economy, so does India. It was believed that such reform starting from early 1990s has unleashed an explosion of the commercial potential of the Indian economy. For instance, ‘licence raj’ is a system under which up to 80 government agencies had to be satisfied before private companies could produce something and, if granted, the government would regulate production⁶⁷. The system was an initiative of the past governments whom advocated for a planned economy and protecting the local industry from foreign competition, but had eventually made doing business in India extremely difficult. The abolishment of this system forced private companies in India to compete with practitioners all over the world. Those inferior players were eliminated from the market as a result. The removal of other barriers and regulations also helps India attract global investors. All these favorable factors created a growing optimism in the country which were further translated into investment opportunities.

A strong local entrepreneurship is another force driving the economic growth. India is apparently experiencing a development path quite different from China, instead of manufacturing and trade, India chooses innovation and technology. Without the state patronage to be relied upon, companies in India make their best effort to develop their own businesses. The country proved its decision right. The private companies survived global competition and stand strong in the market to contribute to the country's economic growth. It was estimated that the number of small businesses in India amounts to 48 million⁶⁸. The country is particularly strong in modern services especially software and information technology related services. The sector has experienced exponential expansion and continues

⁶⁷ "Licence Raj," *Wikipedia*, accessed July 27, 2016, https://en.wikipedia.org/wiki/Licence_Raj.

⁶⁸ Rohit Arora, "Why India Is the Land of Rising Entrepreneurship," *Inc.com*, accessed July 27, 2016 <http://www.inc.com/rohit-arora/why-india-is-the-land-of-rising-entrepreneurship.html>.



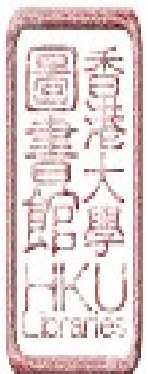
to demonstrate its growth potential in the future. The economic principle has been continued after the Cabinet change. Soon after taking office, the current Prime Minister of India, Narendra Modi announced the ‘Start up India, Stand up India’ campaign to provide a bigger impetus to drive entrepreneurship in the country⁶⁹.

To sum up, our research findings on India, similar to China’s case, fail to prove gender equality was achieved before the country’s economic advancement, thus cannot testify our hypothesis that gender equality is a prerequisite for economic advancement. Moving to the case studies on the US and UK , both of which have undergone a similar situation some 50 years ago, in the following section, we might be able to draw some useful implications on how developing countries, such as China and India, can sustain the growth momentum by embracing female in the labor market.

Developed Countries

The US and the UK, being the leading countries of western liberal democracy, have shown improvement in gender equality over the past few decades. As the pioneer of advocating gender equality, the two countries have both experienced rapid economic growth over a similar period of time. Therefore, it is considered meaningful for us to look at the reasons behind such economic growth and examine whether improvement of gender equality has any direct relationships with economic advancement in reality. By conducting case studies on these two developed countries, we hope to find out whether the success in developed countries can be modeled in developing countries.

⁶⁹ ET Bureau, “PM Narendra Modi Launches 'Stand up India' to Promote Financial Inclusion,” *Economic Times*, April 5, 2016, accessed July 27, 2016, <http://economictimes.indiatimes.com/news/politics-and-nation/pm-narendra-modi-launches-stand-up-india-to-promote-financial-inclusion/articleshow/51700968.cms>.



United States

In the Global Gender Gap Index Report 2015 by the World Economic Forum, the US ranked 28th out of 145 countries, with a score of 0.740⁷⁰. This section will look into the historical data of the US economy and labor market. Through the analysis, we aim to understand the gender equality status in the US labor market during its economic booms, and to testify whether gender equality was a prerequisite for the US economic advancement, or in other words, whether gender equality is a prerequisite for the economic advancement.

The long history of the US economic development can be traced back to the 16th century when the country was conquered as a colony of the Great Britain. From a colonial economy with marginal success, the country gradually evolved into a farming economy after gaining its independence in the late 18th century, and then progressed towards an industrial economy in the 19th century under the influence of the Industrial Revolution in Europe⁷¹. The economic development continued in the 20th century. Despite the Great Depression in the 1930s, stock crash in the late 1980s, the Great Recession in the late 2000s, the US still stands as one of the most influential economic powers in today's world.

Instead of analyzing the changes over several centuries, which is difficult due to the lack of the relevant historical data, our focus will be on the 20th and 21st century, to be exact, from 1930 onward, since when the official data and statistics from the US Government is available. In order to understand the role of gender equality to the US economic growth, we will further narrow down our analysis to two significant economic booms after 1930. For that, we will first review the US economy and economic growth over the past 85 years.

⁷⁰ "Global Gender Gap Report 2015," World Economic Forum, accessed July 26, 2016 <http://reports.weforum.org/global-gender-gap-report-2015/rankings/>.

⁷¹ "The U.S. Economy: A Brief History," *InfoUSA*, accessed June 11, 2016 <http://www.ait.org.tw/infousa/zhtw/DOCS/OutlineEconomy/chap3.html>.

(*InfoUSA is maintained by the Bureau of International Information Programs, U.S. Department of State*)

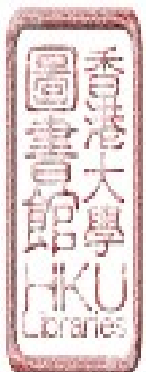
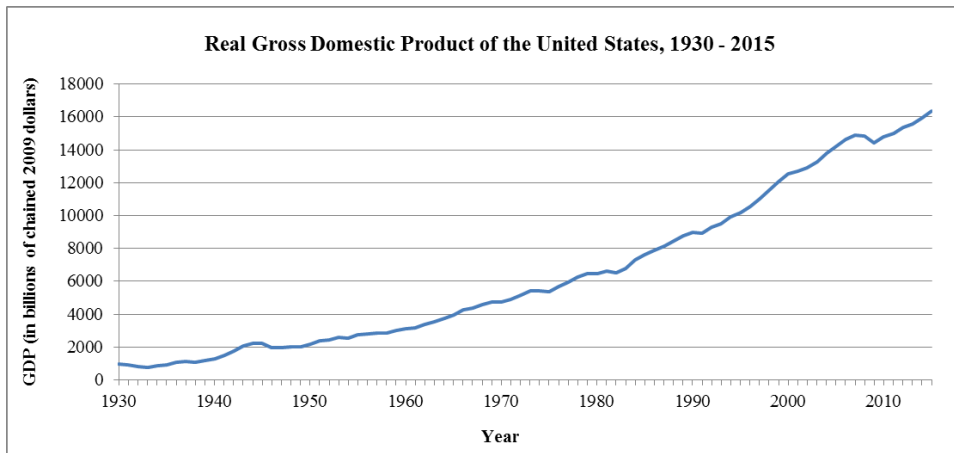


Figure 15:



Source: Bureau of Economic Analysis, U.S. Department of Commerce

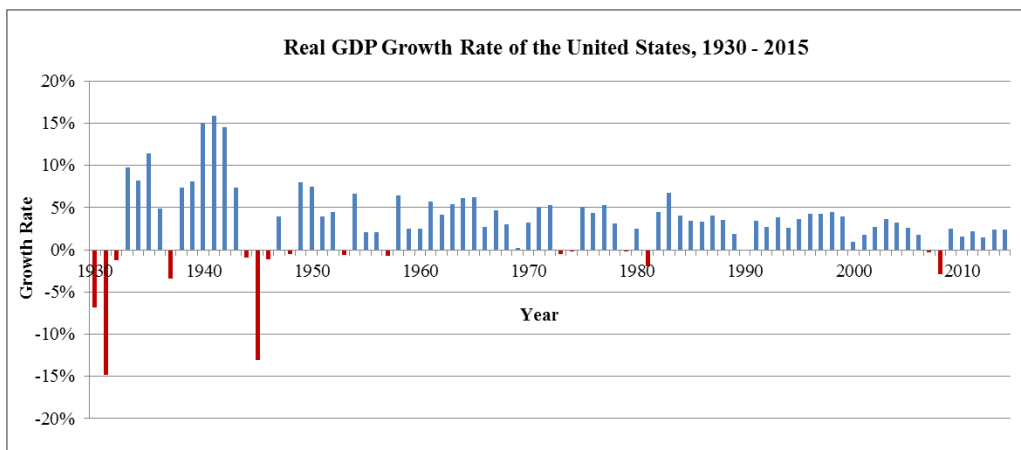
Table 4: Real GDP Growth of the US by decade, 1931-2010

	'31-40	'41-50	'51-60	'61-70	'71-80	'81-90	'91-00	'01-10
Real GDP Growth (%)	39.9	46.6	31.7	48.1	32.3	35.3	40.4	16.6

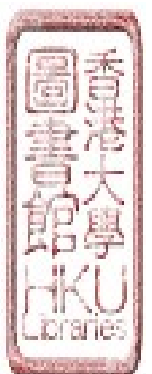
Source: Bureau of Economic Analysis, U.S. Department of Commerce

The US economy grew steadily over the period, from a real GDP below USD1,000 billion in 1930 to over USD16,000 billion in 2015, recording a 16-fold increase. The growth was the fastest in the 1960s, followed by the 1940s and 1990s, up by 48.1%, 46.6% and 40.4% respectively.

Figure 16:



Source: Bureau of Economic Analysis, U.S. Department of Commerce



Is Gender Equality a Prerequisite for Economic Advancement?

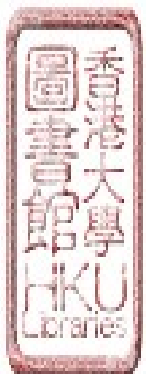
Despite the general upward trend, the annual real economic growth fluctuated. Continuous negative growths were found in the early 1930s and mid-1940s, obviously due to the Great Depression and the outbreak of the Pacific War, while one-off recessions were found in the early 1980s and late 2000s, which could be explained by the contractionary monetary policy adopted by the Federal Reserve in 1980 and the housing bubble burst in 2008. It is also worth noting that the country experienced uninterrupted economic growth from 1961 to 1970 and from 1991 to 2000. The annual GDP increase averaged 4.1% and 3.3% in these two decades.

Based on the above statistics, three economic booms can be identified in the US after 1930, namely the 1940s, 1960s and 1990s. However, as mentioned above, the economic growth trends in these three decades were different – the 1940s was a decade of drastic fluctuations in terms of the annual real GDP growth, whereas the growth in the 1960s and 1990s were comparatively more stable. In view of this, we believe an analysis focusing on the two latter decades would be more useful to our research.

Adding our research topic in, the following part will review the gender equality status in the US labor market in the 1960s and 1990s so as to find out whether gender equality was a prerequisite for these two economic booms, and briefly discuss the real reasons driving the economic booms if it was not gender equality in the labor market.

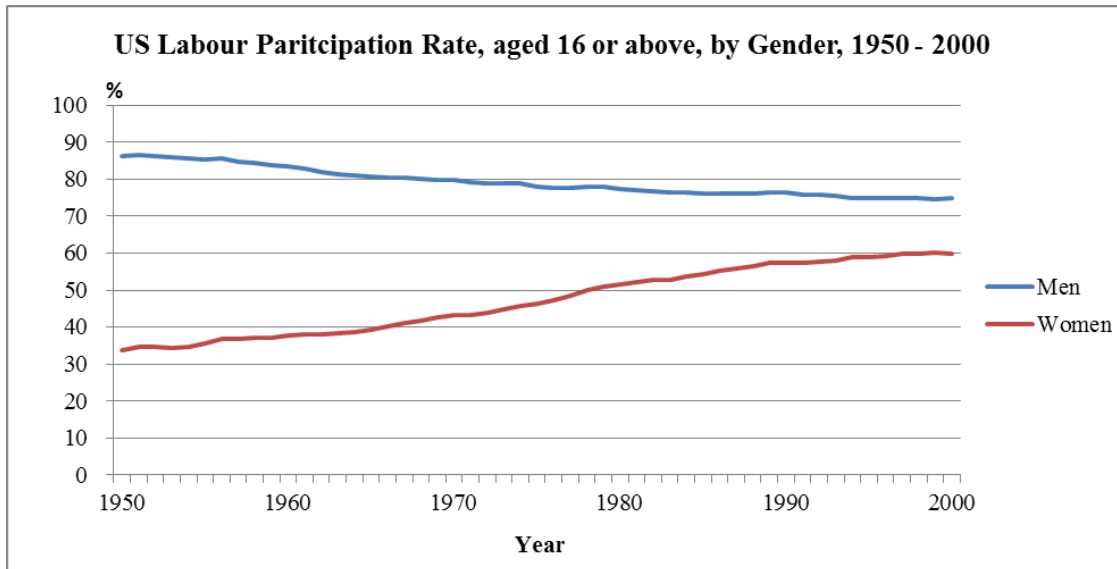
Labor force participation

Referring to Figure 17, the labor participation rate of women aged 16 or over was on a steady increase from 34% in 1950 to 60% in 2000. The largest increase by decade was found in the 1970s. The rate grew by 8%, from 43% in 1970 to 51% in 1980. Comparatively, the



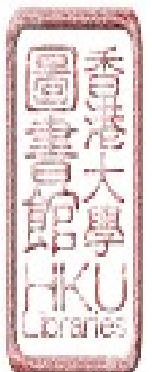
increase in the 1960s economic booms was 6% only and the 2% increase in the 1990s economic booms was even less significant.

Figure 17:



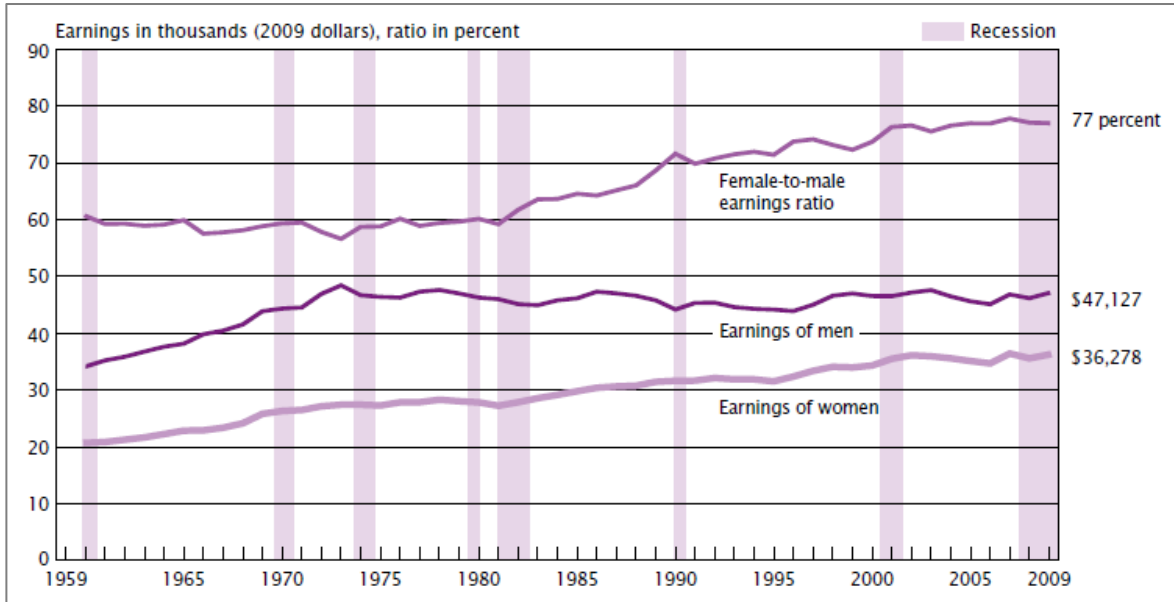
Source: Bureau of Labor Statistics, U.S. Department of Labor

Turning to men's side, the labor participation rate of those aged 16 or over during the same time period was ranged from 75% to 85%. Despite a downward trend, the men's rates were still significantly above the women's over the decades. The difference was brought about by an unequal access to the labor force between men and women, and thus was a sign of gender inequality in the labor market. In 1960, at the beginning of the economic boom, 83% of men were in labor force while the figure of women was 34%, less than half of the men's rate, highlighting an obvious gender inequality. By 1970, the difference had decreased from 49% to 36%. The men's and women's labor participation rates continued moving towards convergence in the following few decades, which could be interpreted as an improving gender equality in the labor market. However, the inequality persisted. In 1990 77% of men versus 58% of women were in labor force, with a difference of 19%. In 2000 after the economic boom in the 1990s, the difference further dropped to 15%.



Wage gap

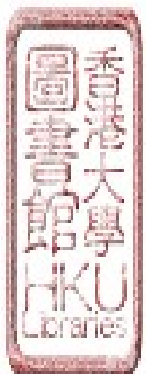
Figure 18: Median Earnings of Full-time, Year-round Workers 15 Years and Older by Sex, 1960 – 2009



Source: U.S. Census Bureau, U.S. Department of Commerce⁷²

The earnings of women had been increasing steadily since 1960 in real terms. The median earnings started with USD21,000 in 1960 and surpassed USD36,278 in 2009, recording a 73% increase. Similarly, men’s real earnings were on the rise over the same period, but the overall growth was only 39%, which was just slightly over half of women’s growth. Also, as compared to women’s stable upward trend, the changes on earnings of men were more fluctuating. Men’s real earnings increased in the 1960s and early 1970s, reaching its highest at USD49,000 in 1973, then plateaued at USD48,000 with small ups and downs in the 1980s. It came to the lowest at USD45,000 in 1990 and gradually moved upward to USD47,127 in 2009.

⁷²Carmen DeNavas-Walt, Bernadette D. Proctor, and Jessica C. Smith, “Income, Poverty, and Health Insurance Coverage in the United States: 2009,” *U.S. Census Bureau, Current Population Reports P60-238* (Washington DC: U.S. Government Printing Office, 2010), 11.



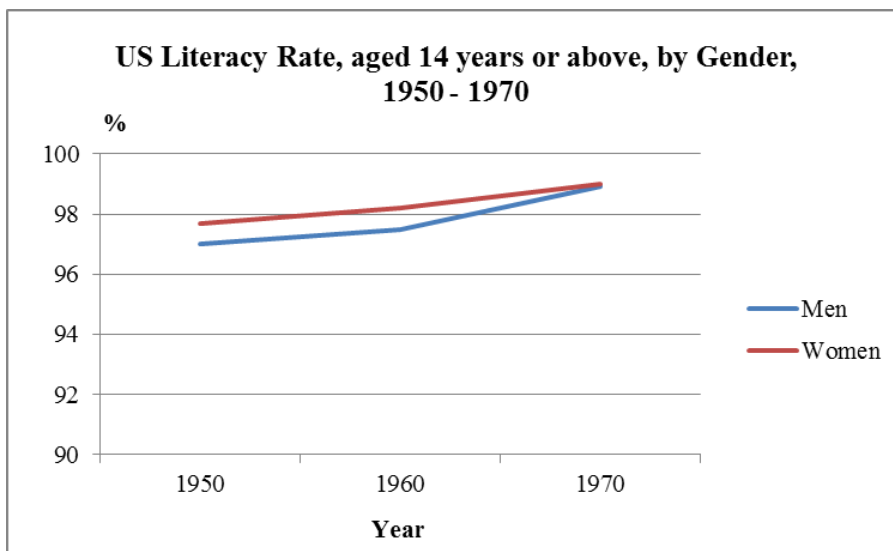
Is Gender Equality a Prerequisite for Economic Advancement?

Despite its fluctuations, men's median earnings were still significantly higher than women's. Such gap told the gender inequality in the labor market. While the perfect situation is that women and men earn equal incomes, this is not to say difference is not acceptable, but a significant difference would constitute gender inequality. The inequality can also be reflected by the female-to-male earnings ratio. The higher the ratio, the smaller the gender gap and the higher the gender equality is. From the 1960s to early 1980s, women's earnings were 58% of men's on average. The ratio increased remarkably to 71% in 1990 and then to 77% by 2009. Gender inequality had been improving yet persisted.

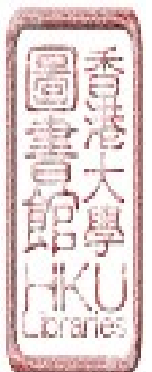
Gender equality in earnings obviously was not achieved before or during the 1960s and 1990s economic booms. It is interesting to note that the economic boom in 1960s did not improve the gender equality, but rather worsened it. Throughout the decade, men was more favored by the economic boom than women, evidenced by the higher increase in the earnings and the declining female-to-male earnings ratio.

Literacy rate

Figure 19:



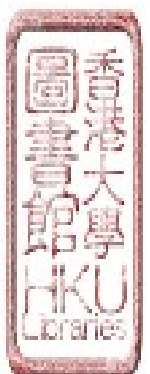
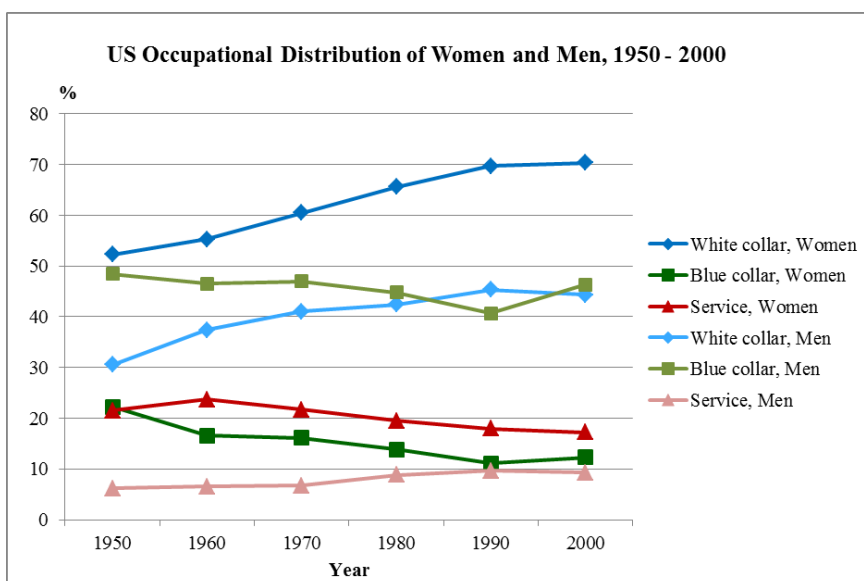
Source: Statistical Abstract of the United States, 1950, 1960 and 1970, U.S. Census Bureau



The US had a high literacy rate in both genders. In 1950, the literacy rates of men and women were very close to 97%, and by 1970, the rates reached 98% and 99% respectively. Statistics after 1970 was not available because the U.S. Government no longer collected data on literacy since then, but it is certain that the literacy rate was kept at the same high level, if not increased. The chance for a sudden drop was very slim.

Unlike the labor force participation, the gap between men and women in literacy rate was very small. This implied that, in terms of access to basic education, men and women had almost equal opportunity and thus gender inequality in this aspect was not likely. And surprisingly, women's literacy rate in 1950 and 1960 were even higher than men's, which was contrast to the phenomenon in labor force participation. This could be explained by the difference in job natures the majority of men and women worked in and the importance of literacy to these jobs. Figure 20 shows the occupation distributions of women and men from 1950 to 2000. It is noted that in 1950 and 1960, over 50% of women in labor force worked as white-collar while men dominated in blue-collar jobs, such as performing manual labor in construction sites, mining fields and warehouses where literacy was relatively less important.

Figure 20:



Sources:

1950: Employment and Training Report of the President 1976, p.387 ⁷³

1960-80: Statistical Abstract of the United States, 1981, Table 673, p.401 ⁷⁴

1990: Statistical Abstract of the United States, 1990, Table 645, p.389

2000: Bureau of Labor Statistics, U.S. Department of Labor

The close literacy rates and different occupational distributions between genders together revealed that literacy rate did not necessarily affect men and women in performing their jobs. As such, the impact of literacy rate on the gender (in-)equality in terms of access to the labor market was in fact very limited.

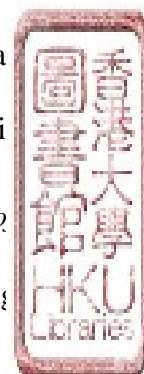
The above statistics showed clearly that gender equality in labor market was achieved neither before the economic booms in 1960s and 1990s nor along with the economic growth. So, it is hard to conclude a certain relationship between the gender equality in labor market and economic advancement merely from the statistical analysis. We now complete our analysis by turning to assess the gender equality in the US labor market *from a legal perspective*. Legislation determines the rights and protection that labor are entitled to by laws, as well as how they are being treated in the labor market. Unfair legislation or lack of legislation is an important indicator of gender inequality in the labor market. Our focus here will be on the legal development related to the gender equality in wages, employment opportunities and leave entitlements.

Equal wages

As discussed in the above section (*Figure 18*), women earned significantly less than men throughout the years. The prevailing wage gap was partly rooted in a traditional assumption that men rather than women was the sole economic provider to families and so i

⁷³Mark R. Killingsworth and James J. Heckman, "Female Labor Supply: A Survey," in *Handbook of Labor Economics, Volume I* (Amsterdam: Elsevier Science Publishers BV, 1986), 119.

⁷⁴Paul E. Gabriel and Susanne Schmitz, "Gender differences in occupational distributions among workers," *Monthly Labor Review* (June 2007): 22.



was rational to pay lower wages to women whom were merely working to gain some extra money for their families⁷⁵, but more largely contributed by the lack of legislation. It was not until 1963 had the US Government passed the *Equal Pay Act*, which prohibited wage discrepancies between men and women doing substantially equal work. This was regarded as a milestone of the gender equality movement in the US labor history because the Act was the first law in the US that promotes equal pay between genders and also the US Government's first attempt to narrow the gender inequality in its labor market.

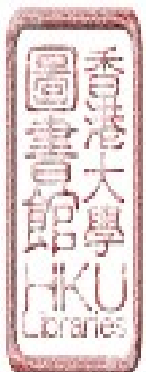
The effectiveness of the legislation, however, is dependent on its enforcement. The Equal Pay Act did not narrow the wage gap between genders initially. Many employers ignored the Act and continued to pay their female employees at lower wages than male employees, claiming that the going market rate of women was lower than that of men⁷⁶. The Act was not given attention until the US Court reinforced its strong stance and strengthened actions against wage discrepancies between genders in several cases in the 1970s. Nevertheless, the fact that a substantial wage gap remains nowadays still exposes loopholes in the existing legislation and legal enforcement.

Equal employment opportunities

Gender equality also advocates men and women to have equal access to job and that employments should be free from gender-based discrimination. The reality is very often the opposite thanks to a common (mis-) perception that women and men were born to be strong in different skill sets and thus are excelled in different occupations. The different occupational distributions of women and men discussed above, also described as occupational segregation, may shed some lights on this point, but the phenomenon is bes

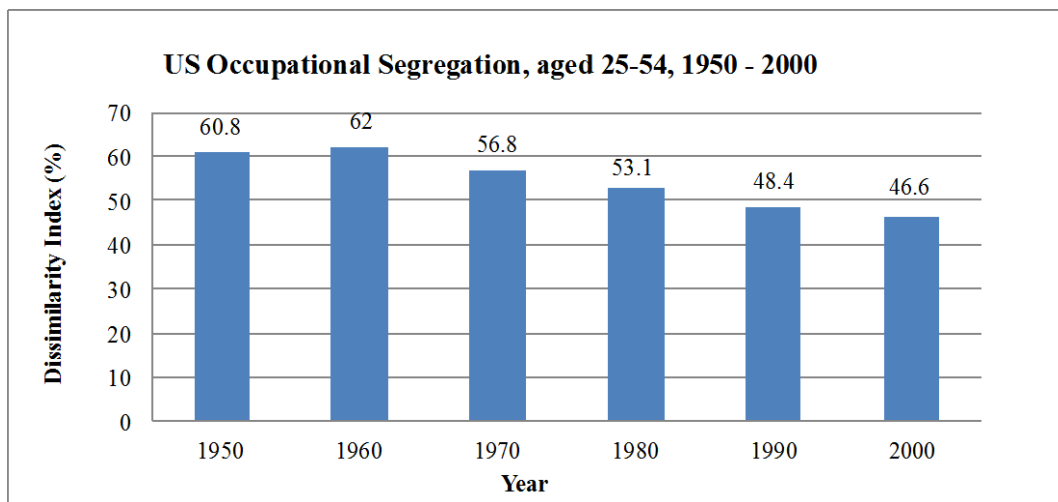
⁷⁵ "50 Years and Counting: The Unfinished Business of Achieving Fair Pay," *National Women's Law Center*, accessed June 18, 2016, http://nwlc.org/wp-content/uploads/2015/08/final_nwlc_equal_pay_report.pdf, 4.

⁷⁶ Ibid.



illustrated by the Dissimilarity Index. The index represents “the percentage of labor force that would have to change occupations in order to match the gender distribution in the labor force as a whole”⁷⁷. The higher the index, the more significant the occupational segregation is. Figure 21 shows the Dissimilarity Index of the US labor market from 1950 to 2000. To illustrate, the dissimilarity index of 60.8 in 1950 means that 60.8% of men or women needed to change occupations for the occupation distribution of the two genders to be the same.

Figure 21:

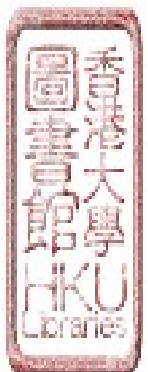


Source: Integrated Public Use Microdata Sample (IPMS) from 1950-2000 Census data⁷⁸

The uneven occupational distribution was substantially the result of the unequal employment opportunities between men and women. Before 1960s, women were commonly perceived as subordinate to men in the workplace and were given limited access to managerial positions and professional occupations. Job advertisements in newspapers were commonly listed based on genders while employers could specify whether women were

⁷⁷ David A. Cotter, Joan M. Hermsen and Reeve Vanneman, *Gender Inequality at Work* (New York: Russell Sage Foundation; Washington DC: Population Reference Bureau, 2004), 19.

⁷⁸ *Ibid*, 81.



eligible to apply in job announcements⁷⁹. To rectify the unfair situation, the US Government passed the *Civil Rights Act of 1964*, which forbade discrimination in hiring, promoting, firing and being denied admission on the basis of race, ethnicity, religion, *sex* or national origin⁸⁰. This Act largely addressed the gender inequality faced by women. First, it helped to open previously male-only jobs to women, increasing women's employment opportunities. Second, it established the Equal Employment Opportunity Commission, a federal agency dedicated to monitoring the enforcement of laws against workplace discrimination.

Fair leave entitlements

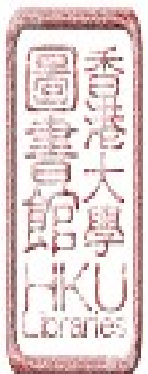
Talking about leave entitlements, one should take women's social roles into consideration. Women, being wife and/or mother, are generally expected to spend much more time on families than men. Another issue of concern is pregnancy, which undoubtedly affects working mothers more than working fathers. With this in mind, gender equality in leave entitlements does not aim for equality, but rather for fairness. Leave entitlements should be fair in the sense that it allows both genders to fulfill their responsibilities in work and family equally. Such consideration was neglected in the US legislation until the *Family and Medical Leave Act of 1993* (FMLA) was passed. It was the first law in the US with the aim to facilitate women to make a better balance between their work/career and family. The FMLA permitted "*eligible employees to take up to 12 workweeks of unpaid leave during any 12-month period for certain family and medical reasons*"⁸¹. It also made maternity leave policy mandated by law.

⁷⁹Mary E. Guy and Vanessa M. Fenley, *Inch By Inch: Gender Equity Since The Civil Rights Act of 1964* (2013), 5.

(Paper prepared for delivery at the annual meeting of the American Political Science Association, August 29 – September 1, 2013, Chicago, Illinois)

⁸⁰ Ibid, 7.

⁸¹"Fact Sheet #28A: Employee Protections under the Family and Medical Leave Act," Wage and Hour Division, U.S. Department of Labor, accessed July 15, 2016 <http://www.dol.gov/whd/regs/compliance/whdfs28a.pdf>.

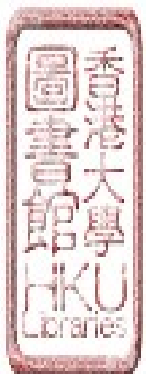


Is Gender Equality a Prerequisite for Economic Advancement?

The FMLA took a remarkable step towards fair leave entitlements between genders, as well as gender equality in the labor market, but still has its limitations. First, the Act is only eligible to employees whom have worked for the employer for 12 months and at a location where the employer has 50 or more employees within 75 miles⁸². This restricts the number of working women protected by the FMLA. Second, the leave granted under the FMLA is unpaid. To single mothers and women with low-paying jobs, the FMLA protection comes only at a high or even unaffordable price. The FMLA is also found not internationally competitive. Take a simple example – maternity leave is unpaid under the FMLA, but many other countries, such as the UK, France, Spain and Korea, are offering either partial- or full-pay during maternity leave. All these reveal that the US labor market still has a considerably long way to gender equality.

To sum up our findings on the legal development, despite the significant progress that has been made in improving the labor laws, the current legislation is still not sufficient to close the gender gap and gender inequality remains in the labor market. Although the three landmark laws discussed above were passed in the 1960s and 1990s when the economy was thriving, the primary force that drove these legal breakthroughs did not come from economic consideration (for example, securing a stronger economic growth) but from the social force. The Equal Pay Act in 1963 and the Civil Rights Act of 1964 were driven by the country-wide feminist movements and the policy of Kennedy administration whom placed women's rights at a high priority, while the FMLA of 1993 was the result of the increasing social demand for work-family balance. None of the above legal development is made to achieve gender equality for economic advancement. Similar to the statistics, the legal analysis also provides no clues to support that gender equality is a prerequisite for economic advancement.

⁸²“FMLA Frequently Asked Questions – Eligibility,” Wage and Hour Division, U.S. Department of Labor, accessed July 15, 2016, <http://www.dol.gov/whd/fmla/fmla-faqs.htm#3>.



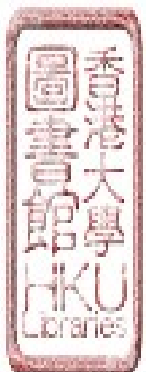
Is Gender Equality a Prerequisite for Economic Advancement?

So what drove US' economic advancement in the 1960s and 1990s? Improving gender equality might have contribution because it helped encourage more women to join the labor force and unleash the hidden women power to push up the country's overall productivity, certainly there were other more important reasons. In the 1960s, the US economy was found most benefited by the war economy and the Government's economic policies. Externally, the Vietnam War kept demanding and pushing the country for increasing industry capacity and labor productivity. Internally, the policy measures of the Kennedy and Johnson Administrations were effective in driving steady economic growth by stabilizing the inflation and reducing unemployment. Turning to the 1990s economic boom, the US economy took full advantage of the birth of Information Age as its cutting-edge technologies including computers, internet, telecommunications and so, triggered rapid economic development, pushing the US economy to another climax.

In short, same as our findings from China and India, the case study on the US also fails to show a clear direct relationship between gender equality and economic advancement, and thus cannot prove gender equality is a prerequisite for economic advancement. Having said that, the US' achievements on addressing gender equality made so far do draw some useful lessons to developing countries which will be discussed at the latter part of this essay.

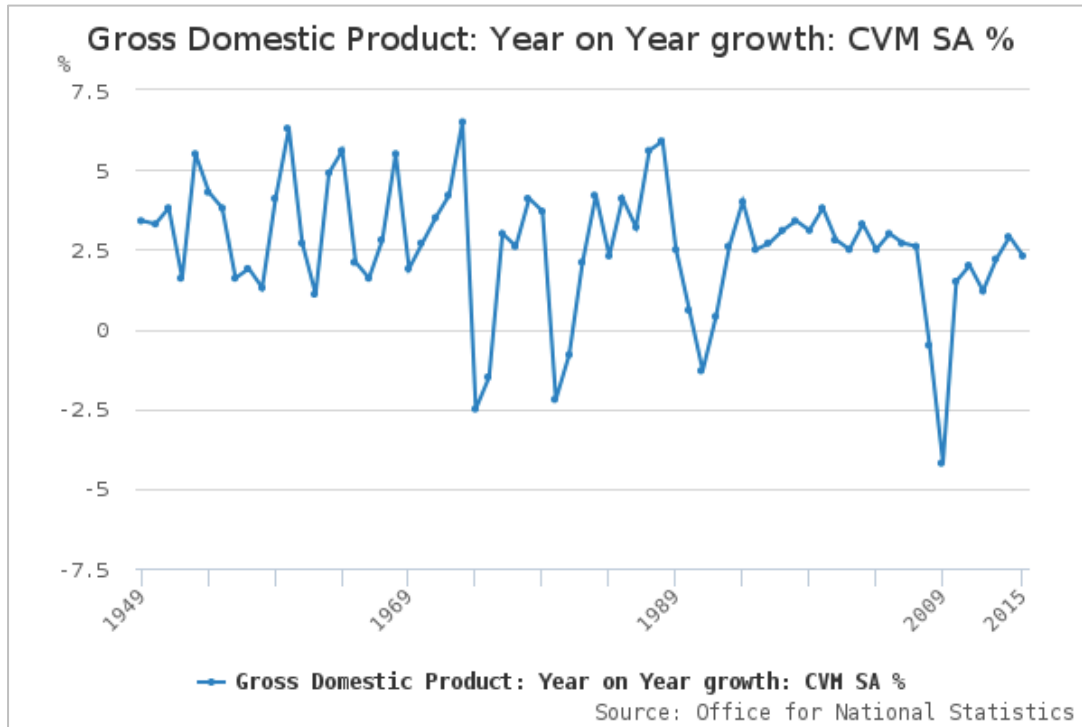
United Kingdom

The UK ranked 18th in 2015, out of 145 countries, in the Global Gender Gap Index of World Economic Forum. The score of 0.758 is higher than many other developed countries such as Japan (ranked at 101st; score: 0.670) and Australia (ranked at 36th; score: 0.733), bu



lower than its neighboring countries such as Ireland (ranked at 5th; score: 0.807) and Germany (ranked at 11th; score: 0.779)⁸³.

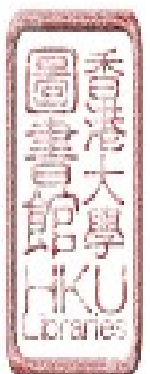
Figure 22: ⁸⁴



However, there is still different gender inequality problems found in the country at present. The following case study will analyze whether gender equality is the pre-requisite of economic advancement from the three perspectives, including employment rate of men and women, gender wage gap and literacy rate.

⁸³ “Global Gender Gap Report 2015,” World Economic Forum, accessed July 26, 2016, <http://reports.weforum.org/global-gender-gap-report-2015/rankings/>.

⁸⁴ “Gross Domestic Product Year on Year Growth: CVM SA%, the UK,” *Office for National Statistics*, accessed July 26, 2016, <https://www.ons.gov.uk/economy/grossdomesticproductgdp/timeseries/ihyp>.



Labor force participation

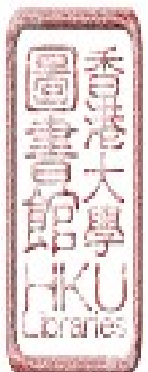
According to GGI, the U.K ranked 43rd for the overall economic participation and opportunity, and particularly, 50th in terms of the labor force participation. For labor force participation, the female-to-men score was 0.86, which was the same as the U.S (gender equality is higher when the score is closer to 1.00). The ratio is relatively lower than Norway, which was ranked 11th with a score of 0.95, while higher than Japan, which is also a developed country but ranked 82nd with a score of 0.77⁸⁵.

There was a significant change in labor participation rate of women from 1971 to 2013. The labor participation rate of women aged 16 to 64 has risen from 53% in 1971 to 67% in June 2013, representing an increase of 14% over the period of 40 years⁸⁶. The change shows that more women have been joining the labor force and contributing to the economy, instead of being full-time housewives and relying on their partners economically like the past.

Why would there be a change in labor participation rate? What were the reasons that more women were joining the labor force over the past 40 years? In the early 1960s, there was improvement in women's human rights and they have become more equal to men. For example, women in the UK started to have the property rights to keep half of any savings she has made from the money given by their husbands. They were also allowed to do abortion legally given the woman was in danger of dying due to pregnancy. Besides, contraceptive pills had started to be available at family planning clinics. However, only until 1968, when female workers at the Ford had started to protest against the company for equal wages with men and even started strikes, women had started to fight for equal treatment at work. The

⁸⁵ "Global Gender Gap Report 2015," World Economic Forum, accessed July 26, 2016, <http://reports.weforum.org/global-gender-gap-report-2015/rankings/>.

⁸⁶ "Women in the labour market: 2013," *Official National Statistics*, accessed July 26, 2016 <http://www.ons.gov.uk/employmentandlabourmarket/peopleinwork/employmentandemployeetypes/articles/womeninthelabourmarket/2013-09-25>.



strikes had direct impact on the 1970 Equal Pay Act, which aimed at promoting women's rights and interests at work and encouraged more women to join the labor force. Beside the 1970 Equal Pay Act, which aimed that promoting equal pay between men and women by prohibiting any less favorable pay terms for women, the Sex Discrimination Act also came into force in 1975. It promoted equality and opportunity between men and women. The 1975 Employment Protection Act also improved gender equality by making it illegal for employers to dismiss female staff during her pregnancy and the statutory maternity leave and provision also came into force starting from this year⁸⁷. Due to the second wave Feminism, the 1970s could be regarded as an active period of improvements of women's rights.

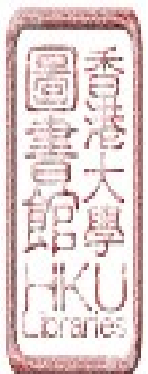
After the new legislations in the 1970s, there were further improvements in protecting women's rights at work in the 2000s, such as the changes in Lone parent income support in 2008 and the increase in state pension age for women in 2010, that encourage more women, including single mothers and the ageing labor, to work and contribute to the country's economy⁸⁸.

Because of the new legislations that were favorable to women, they have become more encouraged to work under more protections on terms and conditions. Through contributions to the economy as well as their families, the status of women has undoubtedly risen over the past four decades and they have become more equal to men. At the same time, the average annual growth rate of GDP of the UK was 2.46% from 1956 to 2016. The highest growth rate was 9.80% back in the 1st quarter of 1973 and the lowest was in the 1st quarter of 2009, for which a -6.10% was recorded⁸⁹.

⁸⁷ Ibid.

⁸⁸ Ibid.

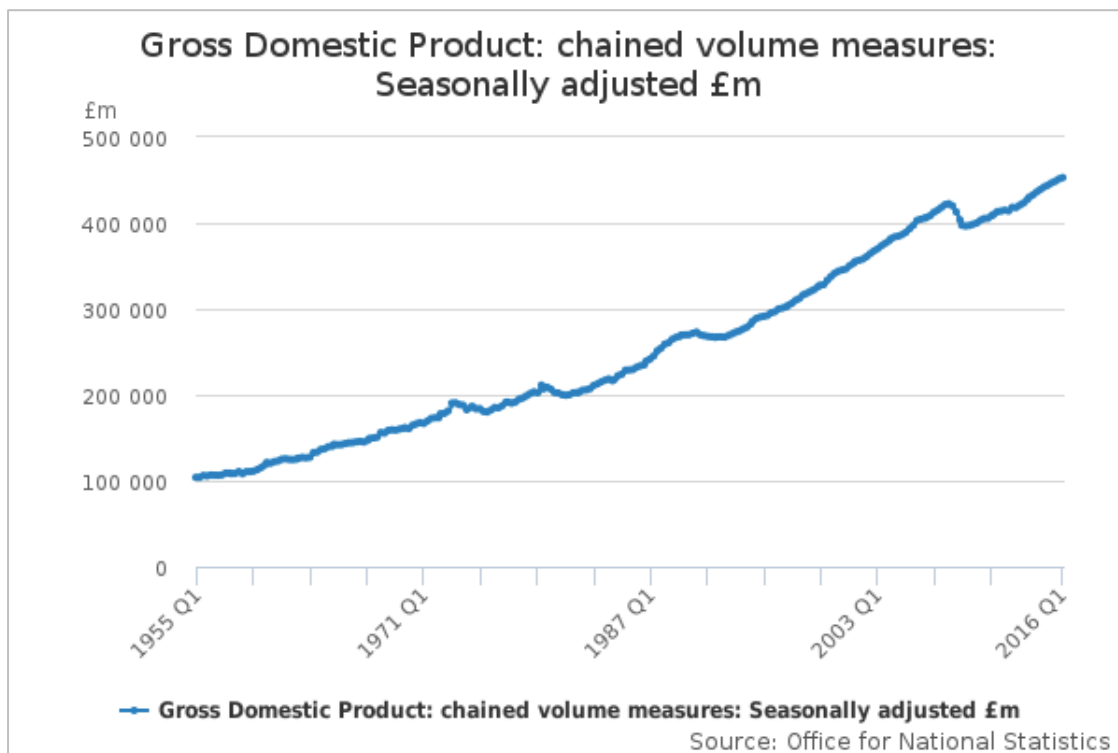
⁸⁹ "United Kingdom GDP Annual Growth Rate," *Trading Economics*, accessed July 26, 2016 <http://www.tradingeconomics.com/united-kingdom/gdp-growth-annual>.



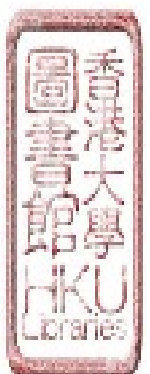
Is Gender Equality a Prerequisite for Economic Advancement?

In this connection, can we draw a conclusion that gender equality is the pre-requisite of economic advancement? To certain extent, the trend of employment rate of women and the economy of the UK are growing in parallel since the 1970s. However, it cannot be concluded that gender equality had actually come before economic advancement during that period. It is observed that the economy had already started to grow in 1955, for which the GDP grew from 100,000M pounds in 1955 to 200,000M pounds in the 1970s (figure 23). In other words, the growth had already appeared well before the new legislations on gender equality at work came into force in the 1970s and thereafter, therefore it is doubtful whether gender equality is really the pre-requisite of economic advancement.

Figure 23: ⁹⁰



⁹⁰ “The GDP in the UK from 1955 Q1 to 2016 Q1,” Official National Statistics, accessed July 26, 2016, <https://www.ons.gov.uk/economy/grossdomesticproductgdp>.



Wage gap

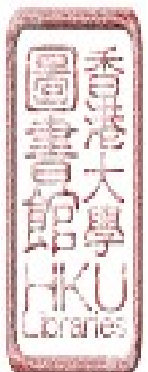
There is a common perception that men are usually earning more than women thus men are more capable than women economically. The indicator is commonly regarded as the gender wage gap, which illustrates how much more men are earning than their partners. For fresh graduates who just start working, their pay might be more or less very close. However, family is the major reason why women would give up their career in the UK. For families with children, women are still more likely to earn less than their husbands / partners because they usually take up the caretaker role of the family. Some of them would quit their jobs whilst some of them would opt for part-time jobs to spare more time for their young children. Around 60% of women with young children at the age of 2-4 were employed on a part-time basis, compared with about 25% of women without children and only 7% of all men⁹¹. Even though some women in the U.K are willing to be employed on a part-time basis, they suffer from being underpaid and lacking of welfare that full-time workers enjoy.

The introduction of the Equal Pay Act in 1975 has undoubtedly brought positive impacts to the employment wage gap between two genders. For the median gender wage gap of full-time employees of working age in 1975 was 29%, dropping to 13% in 2006, representing a drop of 16% over the 30 years⁹².

According to the World Economic Forum, the U.K was ranked 62nd with a score of 0.66 in the wage equality for similar work in 2015, compared to Ireland, which was ranked 36th with a score of 0.71, which has big room for improvement as a developed country. Why would women be paid less while doing the same job as men? Although there is still long way

⁹¹Ghazala Azmat, "Gender and the UK labour market: The evidence on whether 'family-friendly policies can make a difference," accessed July 26, 2016, <http://blogs.lse.ac.uk/politicsandpolicy/gender-and-the-uk-labour-market/>.

⁹²"The gender pay gap in the UK," *Official National Statistics*, accessed July 26, 2016 <https://www.ons.gov.uk/ons/rel/elmr/...and...2008/the-gender-pay-gap-in-the-uk.pdf>.



to go for women to work and be paid equally, the gender wage gap of the UK has been narrowing down over the years already. In accordance with the data provided by the Eurostat, the unadjusted wage gap fell from 27.3% in 2003 to 19.7 per cent in 2013⁹³.

Even though the gender wage gap has been narrowing down, it does not mean that women has become more equal to men. In 2013 of the UK, the major difference between the two genders was that men were more likely to be employed in the upper middle skilled category, such professional occupations when compared to women. 37% of men were employed in this category of roles while only 18% of women were employed in this category⁹⁴. On the other hand, nearly a half (46%) of women were employed in lower middle skilled category, such as admin/ secretarial jobs, caring jobs and sales, while only 24% of men were employed in such category⁹⁵.

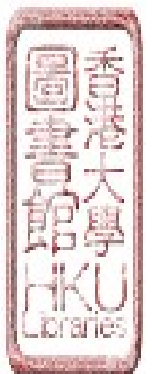
From what we see from the case of the UK, the economic growth has been steadily increasing over the 40-50 years, while at the same time the wage gap has been narrowing down. Despite of such, there is still large room of improvement on employment wage gap in this country, especially on the type and category of work. Merely looking at the labor participation rate could not represent the whole picture of gender equality in the UK.

Besides, it is unclear whether gender equality in the perspective of narrowing down employment wage gap is really the driving force of economic advancement. As mentioned previously, the economy of the UK had started to grow in the 1950s but the gender wage gap only started to narrow down after the introduction of the Equal Pay Act in 1975, which was

⁹³ Statistics, *Equal Pay Portal*, accessed July 26, 2016, <http://www.equalpayportal.co.uk/statistics/>.

⁹⁴ “Women in the labour market: 2013,” *Official National Statistics*, accessed July 26, 2016 <http://www.ons.gov.uk/employmentandlabourmarket/peopleinwork/employmentandemployeetypes/articles/womeninthelabourmarket/2013-09-25>.

⁹⁵ Ibid.



25 years later. Therefore, it is not possible to reach a conclusion by simply looking at the narrowing down gender wage gap over the years.

Literacy rate

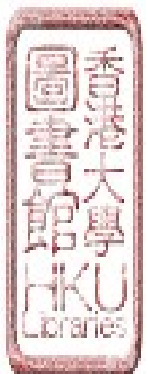
Moving on to discuss the literacy rate of women in the UK, of which it was ranked the 1st with a score of 1.00, same as the neighboring country such as Ireland and Germany. Literacy rate of women has implications on the high level of education rate and opportunities to more choices of occupations⁹⁶. Looking at the full score of literacy rate in the UK now, it shows that the country has experienced a full development on this front, by providing adequate basic education to almost all of the women.

Unlike the developing countries, China and India, which have more obvious observations on the growth in literacy rate, the UK has been doing particularly well on female literacy rate. Therefore, it may be more meaningful for us to also discuss the growing trend of women in receiving tertiary education, as it is the pre-requisite for them to get higher pay jobs and high-skilled occupations or even professional jobs, which would in turn have stronger influence on the advancement of the country's economy. For women's enrolment rate of tertiary education, the UK was ranked at the 1st out of 145 countries in 2015⁹⁷. In the case of the UK, there are currently even more women than men enrolled in the universities. In 2010-11, the female fulltime undergraduates were of 55% when compared to 45% of male fulltime undergraduates enrolled in tertiary education⁹⁸.

⁹⁶ "Global Gender Gap Report 2015," *World Economic Forum*, accessed July 26, 2016, <http://reports.weforum.org/global-gender-gap-report-2015/rankings/>.

⁹⁷ *Ibid.*

⁹⁸ "The gender gap at universities: where are all the men?," *The Guardian*, January 29, 2013, accessed July 26, 2016, <https://www.theguardian.com/education/datablog/2013/jan/29/how-many-men-and-women-are-studying-at-my-university>.



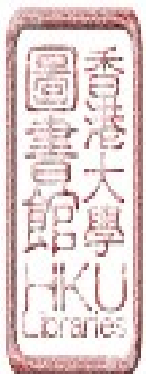
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Based on the current level of education of women, there might be even more knowledgeable and educated women than men at the end. Nevertheless, seeing the success in the wide and full coverage of education in the UK, it is still not possible to prove or say that gender equality comes before economic advancement. In contrast, some may even point out that the well-developed economy has provided an ideal environment to develop education and thus provide sufficient chances for both genders to receive education without any differences. Both young boys and girls are allowed to choose whether they would like to continue their study in tertiary level according to their wishes.

As analyzed previously, gender equality may not be the pre-requisite of economic advancement in the case of the UK. So what are the other factors driving economic growth / leading to economic downturn? There are many reasons that drive the economy over the years, such as internal economic policies. For example, in the 1980s, the country experienced rapid economic growth due to a reduction in income tax thus increasing disposable income of many working families. Similar to many other countries, the rise in house prices led to increase in wealth and value of assets. Because of the rise in wealth as well as comparatively lower real interest rates, people were generally more confident in doing investment and consumption, which also brought positive effect to the economy⁹⁹. As such, the internal environment will surely affect the behavior of individuals, and vice versa.

On the other hand, the UK's economy is also affected by the global economic environment. For example, the economy was deeply affected in 2009 due to the financial tsunami. In 2009, the economic growth rate was recorded at -6.10%, which was the lowest

⁹⁹ "Causes of economic growth," *Economics Help*, accessed July 26, 2016, <http://www.economicshelp.org/macroeconomics/economic-growth/causes-economic-growth/>.



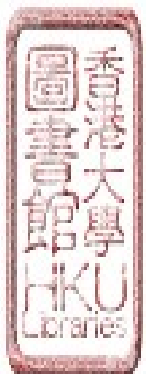
since 1955¹⁰⁰. Because of the financial tsunami that caused the serious financial crisis credit crunch in 2008, many individuals had lost confidence in the housing market, which led to a sudden huge drop in housing prices and drop in individuals' assets thus lowering their purchasing power. The global credit crunch also had negative effects on bank lending and investment. Furthermore, the oil prices had increased at that period of time and affected the purchasing power and living standards of individuals.

To conclude the case of the UK, there are so many factors that could affect the economy, while gender equality is only an element that associates with economic advancement. To certain extent, when the education level of people increased, some of them may have a stronger awareness of their own interests and rights. Taking the case of the UK as an example, while the economy started to grow in the 1950s, the society only realized the importance of legislations for protecting the rights of women at work in the 1970s and the Government finally had done something concrete at that time. It might not be possible for us to find out what are the pre-requisites for economic advancement of the UK and it is truly doubtful and unclear whether gender equality is one of them.

Policy Implications

Gender equality is a broad topic which covers many components from basic human rights to health, education and more. In order to show a clearer picture of the relationship between gender equality and economic development, this paper narrows our focus to a few indicators related to women in labor market and slightly touches upon education. Therefore many factors considered in the gender indicators have not been covered in the analysis above. Although our four case studies all refute the notion that gender equality is a prerequisite to

¹⁰⁰ "United Kingdom GDP Annual Growth Rate," *Trading Economics*, accessed July 26, 2016 <http://www.tradingeconomics.com/united-kingdom/gdp-growth-annual>.



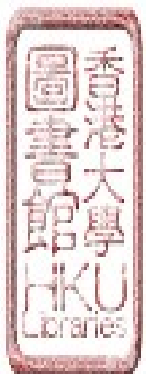
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economic advancement, it does not mean that we can undermine the importance of gender equality in the development process of a country, be it developing or developed. Instead of being a prerequisite condition for advancement, we would rather suggest that gender equality is an aiding factor for a country to pursue continuous economic advancement.

As proven by many researchers and scholars, gender equality promotes GDP growth in many channels. Economic diversification is one of such channel. In a fast changing and globalised world where competition among countries have never been so direct and fierce, economic diversification has been widely considered as a reliable momentum to compete and grow, especially for big countries like the BRICS. A recent IMF Working Paper provided empirical evidence that gender inequality in opportunities, specifically education and labor force participation, will strongly and adversely affect the output and export diversification in low income and developing countries, hence impeding their economic growth¹⁰¹. This case explains that the low income and developing economies cannot escape from dealing with gender inequality in the process of development. In other words, gender equality matters in economic development.

Apart from a diversified economy, a good supply of quality labor force is also indispensable for supporting a country's future development needs and sustaining the growth momentum. In countries like China and India where the absolute size of female labor supply is very large, providing them with necessary training and employment opportunities will ensure that the country can have a potential pool of human capital and talents to contribute to the country's future economic success.

¹⁰¹ Romina Kazandjian, Lisa Kolovich, Kalpana Kochhar, and Monique Newiak, "Gender Equality and Economic Diversification," *IMF Working Paper*, 2016.



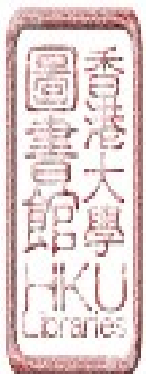
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A research by Goldin presented a U-shaped relationship between the economic development level and the supply of female labor force¹⁰². As a country moves from the undeveloped stage to the developing stage, female labor force supply will first decrease. It will increase again when the country further progresses to the developed stage, but this will happen only under the precondition that female labor force is equipped with the skills needed by the labor market of a modern society. Goldin demonstrated this relationship with the characteristics of the United States in the 20th century when more white-collar jobs were attainable by and available to women.

We found that this model applies to both China and India. For instance, female labor force is a strong contributor to the manufacturing sector in China, which in turn promotes the growth of China's export sector. Similarly, Indian female workers are now a favorable choice for many foreign companies outsourcing their support services to India, such as telemarketing and customer case call centres. Sophisticated skills or advance knowledge is not a must for these manufacturing or call centre jobs. Basic work skills such as literacy and numeracy are sufficient. Therefore, apart from gender equality in the job aspect, such as equal labor participation and wage rate, equal education opportunity is of no less importance for them to contribute to the country's economic development. Again, gender equality is playing an important role to promote economic development and the significance will grow as the economy progresses.

In our first two cases, China and India have been pursuing quite different paths during the development process. China relies much upon the expansion of export sector and foreign investment; whereas India counts on the growth of service sector and business from entrepreneurship. Both countries experienced rapid economic growth and successful

¹⁰² Claudia Goldin, "The U-shaped female labor force function in economic development and economic history," National Bureau of Economic Research (1994).

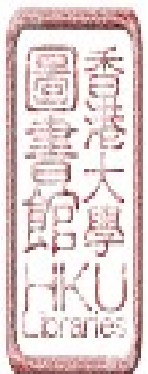


economic transition, yet the path to reaching a developed status is still a long one. Both countries cannot afford to forsake the economic contribution by female population in the long run. This is especially true because women population account for about half of the country's population. The absolute size of their female group is huge and exceeds the total population of many countries. Therefore, it is wise for both countries to reflect on the gender issues and take immediate actions to narrow down the gender gaps.

The concrete impacts of gender equality reduction on economic performance are worth greater attention. For instance, how different components will affect economic performance and how effective they are; which part of the gender equality index should be the priority; how the impact varies according different economy size and industry profile, etc. As a substantial amount of research works are advocating different views, this paper does not intend to go further into details. Instead, we would like point out two key implications we generalized from the four case studies.

Legal protection and enforcement

After analyzing the four cases and comparing the differences between developed countries and developing countries, it is very obvious that legislations play a very important role in promoting gender equality of a country. Gender equality is often reflected by women's opportunity to choose their jobs and their access to some high-skilled or even professional occupations. Also, whether women are considered capable in taking up managerial positions and enjoying equal pay with men are the core indicators of gender equality. However, before the legislations actually set up by the governments of the US and UK, the employers had no incentives and motivation to help women to gain more rights a workplace. It might also be uncommon for them to openly employ women as labor and pay them equally. Upon the enforcement of the relevant legislations, it had become mandatory



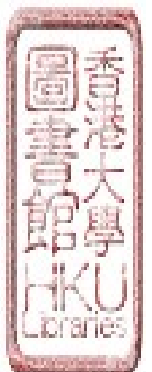
for employers to follow in order not to violate the law so it is the most effective means. In this regard, legislation is considered the most direct means to ensure that the rights of female labor are not deprived and promote gender equality in the economic level.

Taking the developed countries as reference, it will therefore be beneficial to China and India to follow the good practice of the UK and US to advance the level of gender equality by means of tighter legislations. It is acknowledged that China has been improving its labor rights, including the rights of female workers. However, for the case of India, the absence of relevant legislations has led to serious problem for women to find a suitable job with reasonable pay in the market. Therefore, organizations such as the UN might take the initiatives in developing countries to advocate gender equality and women's rights at workplace in order to help improve the situation.

The importance of education in the context of gender equality

While three major indicators including female labor participation rate, gender wage gap between the two genders and education level have been discussed in each case study, education level of women is still considered the most important force for promotion of gender equality. There is no hard-and-fast-rule for a country to have full gender equality overnight. There should be priority in the path of promoting gender equality.

Education is the key. For example, a young girl in India is illiterate so she could only perform some simple tasks or non-skilled work such as working in garment factories set up by some multi-national companies. These jobs usually offer extremely low pay and the young girl is easily exploited by those big companies to work overtime or even work under very poor conditions. Her output, though contributing to the exports of India, is not highly valued by the society as well as their male family members. Only by educating this young girl with

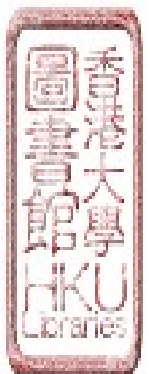


more skills and knowledge will give her more chances to choose what she could work to earn a living. Furthermore, when more women are being educated, they would be more motivated to enter the labor market instead of just staying home to be the caretaker like the past and by education, they understand that they could also be independent economically, rather than relying on their male partners or family members. Finally, when education level and labor participation rate of women have been improved, they would start fighting for their rights at work, especially in questioning why they are not paid and treated equally like their male counterparts. When a society has started to review the pay and treatment of women at workplace, the society has become more “mature” in promoting gender equality, like what the US and UK had done in the past.

Conclusion

Despite that empirical data draws a direct correlation between gender equality and economic advancement, and that the UN has continuously putting forward the view that gender equality is a prerequisite for economic advancement, our research findings do not agree on the notion that gender equality is a prerequisite to economic advancement, supported by our case studies on two developing countries (China and India) and two developed countries (the US and UK), in which discussions on gender equality in labor market (measured by employment-related indicators including labor force participation rate and wage gap and literacy rate) and gender-related labor laws have been covered.

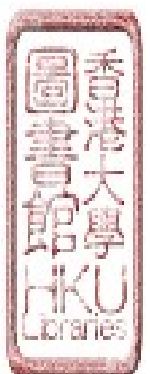
For China, since 2005, gender equality in terms of labor force participation rate and wage gap has been deteriorating. For India, during the period of 2005 to 2010, gender equality in terms of labor force participation and wage gap also worsened. Both cases demonstrated that gender equality did not come before rapid economic advancement. Similar



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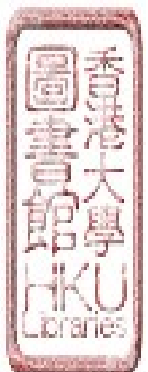
observations are made in the two developed countries. For the US, starting from 1960s, the gender equality in terms of labor force participation and wage gap, as well as gender-related labor laws have been improving, yet inequality persisted. For the UK, gender equality was strongly promoted since 1970s, after the period that the country experienced the highest economic growth starting from 1955. In all four cases, gender equality was not achieved before the period of the most rapid economic development. Other factors, which varied among countries, provided real support for economic advancement. Therefore, the hypothesis that gender equality is a prerequisite to economic advancement *cannot* be testified.

By refuting gender equality as a prerequisite to economic advancement, we do not intend to undermine the importance of gender equality. We acknowledge the fact that gender equality has an important role to play in the economic development, in the belief that its importance will escalate as the country moves closer towards the developed side. The two policy implications we would recommend are that, first, legal protection and enforcement are important and should be carefully considered and implemented; and second, in addressing gender inequality, considering the long term interest of a developing country, priority should be given to education before labor force participation and wage equality.



Bibliography

- "About Gender Equality Index." *European Institute for Gender Equality*. Accessed July 22, 2016. <http://eige.europa.eu/gender-statistics/gender-equality-index>.
- "Ad of the Day: A Father's Touching Apology to His Daughter Highlights the Struggles of Working Mothers." *AdWeek*. February 25, 2016. Accessed July 27, 2016. <http://www.adweek.com/news/advertising-branding/ad-day-fathers-touching-apology-his-daughter-highlights-struggles-working-mothers-169871>.
- Arora, Rohit. "Why India Is the Land of Rising Entrepreneurship." *Inc.com*. Accessed July 27, 2016. <http://www.inc.com/rohit-arora/why-india-is-the-land-of-rising-entrepreneurship.html>.
- Azmat, Ghazala. "Gender and the UK labour market: The evidence on whether 'family-friendly' policies can make a difference." Accessed July 26, 2016. <http://blogs.lse.ac.uk/politicsandpolicy/gender-and-the-uk-labour-market/>.
- Boserup, Ester. *Woman's Role in Economic Development* (New York: St. Martin's Press, 1970).
- Braunstein, Elissa. "Neoliberal Development Macroeconomics – A Consideration of its Gendered Employment Effects." *UNRISD Research Paper 2012/1* (2012).
- Bureau, ET. "PM Narendra Modi Launches 'Stand up India' to Promote Financial Inclusion." *Economic Times*. April 5, 2016. Accessed July 27, 2016. <http://economictimes.indiatimes.com/news/politics-and-nation/pm-narendra-modi-launches-stand-up-india-to-promote-financial-inclusion/articleshow/51700968.cms>.
- "By the Numbers: Where Indian Women Work." *Wall Street Journal*. November 14, 2012. Accessed July 27, 2016. <http://blogs.wsj.com/indiarealtime/2012/11/14/by-the-numbers-where-indian-women-work/>.
- "Causes of economic growth." *Economics Help*. Accessed July 26, 2016. <http://www.economicshelp.org/macroeconomics/economic-growth/causes-economic-growth/>.
- "Closing the Gender Gap: Act Now! – Remarks by Angel Gurría, Secretary-General." *OECD*. December 17, 2012. Accessed June 11, 2016. <http://www.oecd.org/gender/home/closingthegendergapactnow.htm>.
- Cotter, David A., Hermsen, Joan M. and Vanneman, Reeve. *Gender Inequality at Work* (New York: Russell Sage Foundation; Washington DC: Population Reference Bureau, 2004).
- Das, Sonali., Jain-Chandra, Sonali., Kochhar, Kalpana., and Kumar, Naresh. "Women Workers in India: Why So Few Among So Many?" *IMF Working Paper*, WP/15/54 (2015).
- DeNavas-Walt, Carmen., Proctor, Bernadette D. and Smith, Jessica C. "Income, Poverty, and Health Insurance Coverage in the United States: 2009." *U.S. Census Bureau, Current*



Is Gender Equality a Prerequisite for Economic Advancement?

Population Reports, P60-238 (Washington DC: U.S. Government Printing Office, 2010).

"Education: Literacy Rate." *United Nations*. Accessed July 27, 2016. <http://data.uis.unesco.org/Index.aspx?queryid=166>.

"Equal Remuneration Acts and Rules, 1976." *Ministry of Labour & Employment*. Accessed July 27, 2016. <http://labour.gov.in/womenlabour/equal-remuneration-acts-and-rules-1976>.

"Fact Sheet #28A: Employee Protections under the Family and Medical Leave Act." *Wage and Hour Division, U.S. Department of Labor*. Accessed July 15, 2016. <http://www.dol.gov/whd/regs/compliance/whdfs28a.pdf>.

"FMLA Frequently Asked Questions – Eligibility." *Wage and Hour Division, U.S. Department of Labor*. Accessed July 15, 2016. <http://www.dol.gov/whd/fmla/fmla-faqs.htm#3>.

Gabriel, Paul E. and Schmitz, Susanne. "Gender differences in occupational distributions among workers." *Monthly Labor Review* (June 2007).

"GDP at market prices (current US\$) (2015)." *World Bank*. Accessed June 12, 2016. <http://data.worldbank.org/indicator/NY.GDP.MKTP.CD>.

"GDP Growth (annual %)" *World Bank*. Accessed July 27, 2016, <http://data.worldbank.org/indicator/NY.GDP.MKTP.KD.ZG?locations=IN>.

"GDP (current US\$)." *World Bank*. Accessed July 27, 2016. <http://data.worldbank.org/indicator/NY.GDP.MKTP.CD?locations=IN>.

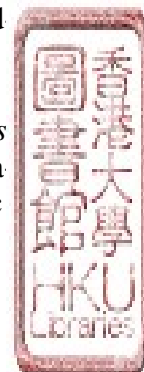
"Gender and Poverty Reduction." *United Nations Development Programme*. Accessed June 18, 2016. http://www.undp.org/content/undp/en/home/ourwork/povertyreduction/focus_areas/focus_gender_and_poverty.html

"Gender Inequality Index (GII)." *UNDP Human Development Reports*. Accessed July 22, 2016, <http://hdr.undp.org/en/content/gender-inequality-index-gii>.

"Gender Inequality Index 2014." *ChartsBin.com*. Accessed July 22, 2016, <http://chartsbin.com/view/37302>.

"Gender Pay Gap in India. Why Women Earn Less than Men, Gender Pay Gap, Pay Disparity in India." *PayCheck.in*. Accessed July 27, 2016. <http://www.paycheck.in/main/world-map-gender-pay-gap/gender-pay-gap-in-india-1>.

"Global champion for women: interview with Michelle Bachelet." *UNESCO Media Services* February 23, 2011. Accessed June 18, 2016, http://www.unesco.org/new/en/media-services/singleview/news/global_champion_for_women_interview_with_michelle_bachelet/#.V0qi5748qL0.



Is Gender Equality a Prerequisite for Economic Advancement?

“Goal 5: Achieve gender equality and empower all women and girls.” *United Nations*. Accessed June 18, 2016. <http://www.un.org/sustainabledevelopment/gender-equality/>.

Goldin, Claudia. “*The U-shaped female labor force function in economic development and economic history*.” National Bureau of Economic Research (1994).

Gonzales, Christian., Jain-Chandra, Sonali., Kochhar, Kalpana., Newiak, Monique., and Zeinullayev, Tlek. “Catalyst for Change: Empowering Women and Tackling Income Inequality.” *IMF Staff Discussion Note* (October 2015), SDN/15/20.

“Gross Domestic Product Year on Year Growth: CVM SA%, the UK.” *Office for National Statistics*. Accessed July 26, 2016. <https://www.ons.gov.uk/economy/grossdomesticproductgdp/timeseries/ihyp>.

Guy, Mary E. and Fenley, Vanessa M. *Inch By Inch: Gender Equity Since The Civil Rights Act of 1964* (2013).

Kazandjian, Romina., Kolovich, Lisa., Kochhar, Kalpana., and Newiak, Monique. “Gender Equality and Economic Diversification.” *IMF Working Paper*, 2016.

Killingsworth, Mark R. and Heckman, James J. “Female Labor Supply: A Survey.” in *Handbook of Labor Economics, Volume I* (Amsterdam: Elsevier Science Publishers BV, 1986).

Klasen, Stephan. “Does Gender Inequality Reduce Growth and Development? Evidence from Cross-Country Regressions.” *Policy Research Report on Gender and Development Working Paper 7*, (1999).

Klasen, Stephan. “Low Schooling for Girls, Slower Growth for All? Cross-Country Evidence on the Effect of Gender Inequality in Education in Economic Development.” *The World Bank Economic Review* 16(3) (2002): 345-373.

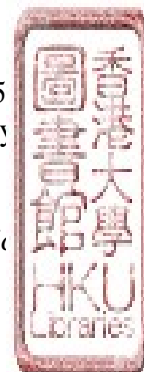
“Labor force participation rate, female / male (% of female / male population ages 15+) (modeled ILO estimate).” *World Bank*. Accessed June 19, 2016. <http://data.worldbank.org/indicator/SL.TLF.CACT.FE.ZS/countries>.

“Labor Force Participation Rate, Female (% of Female Population Ages 15) (modeled ILO Estimate).” *World Bank*. Accessed July 27, 2016. <http://data.worldbank.org/indicator/SL.TLF.CACT.FE.ZS?locations=IN>.

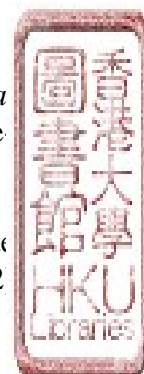
“Licence Raj.” *Wikipedia*. Accessed July 27, 2016. https://en.wikipedia.org/wiki/Licence_Raj.

“Literacy rate (female to male ratio) in China.” *World Economic Forum*. Accessed June 25 2016. <http://reports.weforum.org/global-gender-gap-report-2015/economies/#economy=CHN>.

Liu, Bohong., Li, Ling., and Yang, Chunyu. *Gender Equality in China's Economic Transformation* (UN System in China, 2014).

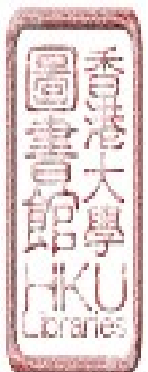


- Madhok, Diksha. "India's Record in Women's Participation in the Workforce Is Depressing." *Quartz India*. July 22, 2014. Accessed July 27, 2016. <http://qz.com/238484/indias-record-in-womens-participation-in-the-workforce-is-depressing/>.
- Martin, Will., Bhattasali, Deepak., and Li, Shantong. "China's Accession to the WTO: Impacts on China." In *East Asia Integrates: A Trade Policy Agenda For Shared Growth* (World Bank, 2003).
- "Measuring the Global Gender Gap." *The Global Gender Gap Index 2015*. Accessed July 22, 2016. <http://reports.weforum.org/global-gender-gap-report-2015/measuring-the-global-gender-gap/>.
- Moser, Annalise. *Gender and Indicators: Overview Report* (Brighton: BRIDGE/IDS, 2007).
- Naila, Kabeer, and Natali, Luisa. "Gender Equality and Economic Growth: Is there a Win-Win?" *Institute of Development Studies Working Paper* 2013, no. 417 (February 2013).
- Nayak, Smita. *Whither Women: A Shift from Endowment to Empowerment* (New Delhi: EduPedia Publications (P) Ltd., 2016).
- "Nominal GDP international comparison among the top 11 largest economies between 1996 and 2014." *Government of Japan*. Accessed June 19, 2016. http://www.esri.cao.go.jp/jp/sna/data/data_list/kakuhou/files/h26/sankou/pdf/kokusai_hikaku20151225.pdf.
- People's Republic of China. *Consideration of reports submitted by States parties under article 18 of the Convention on the Elimination of All Forms of Discrimination against Women – Combined fifth and sixth periodic report of States Parties* (2014).
- People's Republic of China. *Law on the Protection of Rights and Interests of Women* (2005). Accessed July 24, 2016. <http://www.china.org.cn/english/government/207405.htm>.
- Roy, Denny. *Return of the Dragon: Rising China and Regional Security* (Columbia: Columbia University Press, 2013).
- Roy, Kartik Chandra., Blomqvist, Hans-Christer., and Clark, Cal. *Economic Development in China, India and East Asia: Managing Change in the Twenty First Century* (Cheltenham: Edward Elgar Publishing, 2012).
- Sachs, Jeffrey D. *The End of Poverty – Economic Possibilities for Our Future* (New York: Penguin Group, 2005).
- "Sector-wise Contribution of GDP of India." *Planning Commission, Government of India* July 8, 2015. Accessed July 27, 2016. <http://statisticstimes.com/economy/sectorwise-gdp-contribution-of-india.php>.
- Seguino, Stephanie., and Floro, Maria Sagrario. "Does Gender have any Effect on Aggregate Saving? An empirical analysis." *International Review of Applied Economics* 17(2) (2003): 147-166.



Is Gender Equality a Prerequisite for Economic Advancement?

- Sen, Amartya. "Women's Survival as a Development Problem." *Bulletin of the American Academy of Arts and Sciences* vol. 43 (1989): 14-29.
- Sen, K., Saha, B., and Maiti, D. *Labour Market Institution and Flexibility in Indian Manufacturing*. (Manchester: University of Manchester, 2010).
- Solo, Robert M. "A Contribution to the Theory of Economic Growth." *The Quarterly Journal of Economics* 70, no. 1 (1956): 65-94.
- "Statement of UNICEF Executive Director Ann M. Veneman on International Women's Day." *UNICEF Press Centre*. March 8, 2006. Accessed June 11, 2016. http://www.unicef.org/media/media_35134.html.
- Statistics. *Equal Pay Portal*. Accessed July 26, 2016. <http://www.equalpayportal.co.uk/statistics/>.
- Stotsky, Janet G. "Gender and Its Relevance to Macroeconomic Policy: A Survey." *International Monetary Fund Working Paper*, WP/06/233 (October 2006).
- "Table 5: Gender Inequality Index." *UNDP*. Accessed July 27, 2016, <http://hdr.undp.org/en/composite/GII>.
- "THE CONSTITUTION OF INDIA." *Ministry of Law and Justice*. Accessed July 27, 2016. <http://lawmin.nic.in/olwing/coi/coi-english/coi-indexenglish.htm>.
- "The GDP in the UK from 1955 Q1 to 2016 Q1." *Official National Statistics*. Accessed July 26, 2016. <https://www.ons.gov.uk/economy/grossdomesticproductgdp>.
- "The gender pay gap in the UK." *Official National Statistics*. Accessed July 26, 2016. <https://www.ons.gov.uk/ons/rel/elmr/...and...2008/the-gender-pay-gap-in-the-uk.pdf>.
- "The gender gap at universities: where are all the men?" *The Guardian*. January 29, 2013. Accessed July 26, 2016. <https://www.theguardian.com/education/datablog/2013/jan/29/how-many-men-and-women-are-studying-at-my-university>.
- "The Global Gender Gap." *ChartsBin.com*. Accessed July 22, 2016, <http://chartsbin.com/view/30092>.
- "The Power of Parity: Advancing Women's Equality in India." *McKinsey & Company*. November 2015. Accessed July 27, 2016. <http://www.mckinsey.com/global-themes/employment-and-growth/the-power-of-parity-advancing-womens-equality-in-india>.
- "The U.S. Economy: A Brief History." *InfoUSA*. Accessed June 11, 2016 <http://www.ait.org.tw/infousa/zhtw/DOCS/OutlineEconomy/chap3.html>.
- "United Kingdom GDP Annual Growth Rate." *Trading Economics*. Accessed July 26, 2016 <http://www.tradingeconomics.com/united-kingdom/gdp-growth-annual>.



Is Gender Equality a Prerequisite for Economic Advancement?

UN Committee on the Elimination of Discrimination against Women. *Concluding comments of the Committee on the Elimination of Discrimination against Women* (2016).

United Nations. *The Sustainable Development Agenda*. Accessed June 11, 2016. <http://www.un.org/sustainabledevelopment/development-agenda/>.

“Wage equality for similar work in China.” *World Economic Forum*. Accessed June 25, 2016. <http://reports.weforum.org/global-gender-gap-report2015/economies/#economy=CHN>.

“Women in the labour market: 2013.” *Official National Statistics*. Accessed July 26, 2016. <http://www.ons.gov.uk/employmentandlabourmarket/peopleinwork/employmentandemployeetypes/articles/womeninthelabourmarket/2013-09-25>.

“Women in the Workforce: India.” *Catalyst*. November 17, 2015. Accessed July 27, 2016. <http://www.catalyst.org/knowledge/women-workforce-india>.

World Economic Forum, *Global Gender Gap Report 2015* (Switzerland: World Economic Forum, 2015).

Wu, Jackie. “Free economic and trade zones in the Mainland (Part 1).” HKSAR Legislative Council Research Publications, ISE03/15-16 (2015). Accessed June 19, 2016. <http://www.legco.gov.hk/research-publications/english/essentials-1516ise03-free-economic-and-trade-zones-in-the-mainland-part-1.htm>.

Zhang, Ping., Liu, Xiahui., Yuan, Fuhua., Zhang, Ziran. *Annual Report on China’s Economic Growth: Macroeconomic Trends and Outlook* (Springer, 2016).

“50 Years and Counting: The Unfinished Business of Achieving Fair Pay.” *National Women’s Law Center*. Accessed June 18, 2016. http://nwlc.org/wp-content/uploads/2015/08/final_nwlc_equal_pay_report.pdf,

