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국제학석사학위논문

The Impact of Economic Crisis on Global  
Gender Inequality: An Empirical Analysis

경제위기가 세계 남녀불평등에 미치는  
영향에 대한 실증분석

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서울대학교 국제대학원  
국제학과 국제지역학전공  
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# The Impact of Economic Crisis on Global Gender Inequality: An Empirical Analysis

A thesis presented

by

Youn, Bora

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**Graduate School of International Studies**

**Seoul National University**

**Seoul, Korea**

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# The Impact of Economic Crisis on Global Gender Inequality: An Empirical Analysis

경제위기가 세계 남녀불평등에 미치는  
영향에 대한 실증분석

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## **Abstract**

# **The Impact of Economic Crisis on Global Gender Inequality: An Empirical Analysis**

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This paper presents the empirical evidence of the positive relationship between financial crisis and gender inequality. The result of panel regression analysis of over 160 countries covering the period 1960-2011 shows that the occurrence of economic crisis and national labor participation rate and gender wage gap in each economic sector are positively related. The magnitude of the economic crisis is also found to be positively related to the gender wage gap in each economic sector. Along with the impact of crisis, the level of female education and gender gap in school enrollment rate are strongly related to gender wage gap. However, no significant relation is found between crisis and public expenditure on education.

**Key words:** Financial crisis, Crisis, Gender gap, Wage gap, Gender inequality, Labor participation gap

**Student number:** 2008-23459

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## **LIST OF ABBREVIATIONS**

<b>GDP</b>	Gross Domestic Product
<b>IMF</b>	International Monetary Fund
<b>ILO</b>	International Labor Organization
<b>NAFTA</b>	North American Free Trade Agreement
<b>OECD</b>	Organization for Economic Cooperation and Development
<b>WDI</b>	World Development Indicators

# I. INTRODUCTION

In late 1990s, major Asian countries which had hitherto recorded high growth rate underwent financial crisis while Latin American countries, especially Mexico, suffered from the side effect of NAFTA (North American Free Trade Agreement) after which came into effect. Nevertheless, one of the “former four dragons”, Korea recovered its economic performance fast in a short period of time while most of the Latin American countries continue to suffer from economic crisis until today. These results come from the deepening of capitalism and the liberalization of labor market. In the case of Korea, the economic structure and the nature of job (permanent or temporary) changed drastically during and after financial crisis.<sup>1</sup> There has been huge amount of layoffs, and the wage gap between large firms and small/medium-sized firms increased. In addition to this, gender wage inequality rose.

There are several labor market theories and hypotheses which explain the relationship between economic crisis and female labor market. The first is ‘buffer hypothesis’ presented by Humphrey, 1988. According to Humphrey, female labor force was used as a buffer during the economic crisis like reserved army in wartime. They were laid off first or encouraged

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<sup>1</sup> Lee, Kye Woo and Cho Kisuk. “Female Labour Force Participation During Economic Crises in Argentina and the Republic of Korea” *International Labour Review*, Vol. 144 (2005)

to withdraw from the labor market. Therefore, this theory assumes negative relationship between economic crisis and female labor participation. Another hypothesis is the “crowding hypothesis”, which explains that given gender stereotyping of economic roles, women are crowded into female-dominated jobs and they lower the wages on those jobs due to oversupply (Bergmann, 1986; Sorensen, 1989a) Along with these two theories, human capital theory can be a useful explanatory tool for analyzing the differential of wage between two sexes after economic crisis. Human capital theory regards labor market as a commodity market where workers sell their labor and are paid in accordance of their level of productivity. Decisive factors of productivity are levels of education, training, skills and experience. According to this theory, female workers who have not accumulated enough human capital have higher risk to be crowded out.

In this paper, I will analyze the impact of economic crisis on gender inequality from 1960s to the latest year. This paper is composed of five parts. The first section explains the purpose of this research. I will then briefly review the recent academic discussion on the relation between economic crisis and gender inequality in the second part. The third part presents methodology, hypotheses and econometric model of this research. The empirical analysis is followed in the fourth part. The fifth section concludes and presents implications for gender policy.

## **II. LITERATURE REVIEW**

### **1. A Potential Source of Gender Inequality**

In recent years, there has been extensive literature that focuses attention on wage gap in terms of gender, professional skills, or demographic structures in various countries. Menon and Rogers (2008) found that trade openness increases gender wage gap in India's manufacturing sector, and argues that this is counter evidence to the neoclassical theory of labor market discrimination which maintains that the intensified competition in labor market from international trade will reduce the gender wage gap. Regarding the wage gap between skilled and unskilled workers, Gonzáles (2001) provides the evidence of the case of Mexican economic crisis after NAFTA. In Mexico, wage gap between skilled and unskilled workers, rather than gender gap, has received critical attention since economic liberalization.

### **2. The Impact of Crisis on Gender Inequality**

There is relatively scarce research on the relationship between economic crisis and gender wage gap while there some efforts were made to analyze the impact of crisis of the late 1990s. This area still remains far from fully answered. Main difficulty in conducting research on the impact of crisis

on gender issues lies in the fact that there are a lot of economic and social causes that would affect on gender inequality. Some economic institutions have recently published their annual books on 2008 crisis. The ILO (International Labour Organization) annual book, in particular analyzes monthly female unemployment rate during the period of global economic crisis. Countries such as the United States and France suffered from deterioration of labor market while Poland and Netherland did not.<sup>2</sup>

According to Choudhry, Marelli, and Signorelli (2010), they show new econometric study on the effect of the past financial crises on economic gender inequality; female labor force participation and female unemployment rate. This article utilized empirical research based on panel estimation method on a panel of countries (64) for the period 1980-2005. Their empirical results indicate that the financial crisis effected female labor participation negatively, but such impact was only significant in the case of high and upper-middle income group. They used female labor participation as dependant variable for gender inequality. The limitation of their research is that the dependant variable can only be indirect or proxy variable for gender inequality.

There exists controversial opinion on this topic. Leschke and Jepsen

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<sup>2</sup> International Labor Organization (2009), *Global Employment Trends for Women*, Geneva, March.

(2011) argued that the policy response of gender inequality is triggered by financial crisis of European Union. Their study addressed three-country cases; the UK, Germany and Denmark. An examination of policy responses to the crisis reveals a strong bias towards supporting male dominated sectors over female dominated sectors and employment policy measures that tend to be picked up by relatively more men especially in short-time working sectors. Maier (2011) suggests that the economic crisis does not lead to increase of gender inequality in the labor market. Antonopoulo (2009) and Seguino (2009) also argued that some countries such as Brazil, China and India showed improvement in gender inequality in times of the crisis.

Kim and Voos (2007) made efforts regarding the case of the Korean economy. After Asian financial crisis in the late 1990s, the structure of Korean economy and its labor market underwent thorough changes. They assert that Korean case of unemployment, labor force participation and changing nature of jobs supports buffer theory of women's employment. Authors conducted empirical study on the relationship between financial crisis of and gender wage gap with individual income data and Oaxaca decomposition for the period of 1997 and 2002 in which the gender inequality increased. The interesting finding is that although the gender wage gap has widened after the crisis, the gap did not increase in small firms or in the informal sector.

The limitations of the existing research on relationship between economic crisis and gender inequality can be summarized as follows. First of all, fewer studies have attempted to provide a cross-country explanation of the relationship between economic crisis and gender inequality. Many literatures focus on a certain country or period, and employ individual-level data. Additionally, the alternative variable for the gender inequality (female participation rate or female unemployment rate) was utilized in general rather than the direct variable, which is the “relative” labor participation and the gender wage gap. Another important limitation which should be highlighted is that the economic crisis was only factored in as the simple variable as occurrence of the crisis. The “magnitude” of the crisis has been made available by the study of Luc and Fabian (Luc and Fabian 2008), so taking the variable as the magnitude will deepen the level of analysis. In the following sections, I will attempt to examine the impact of recent economic crisis by using these direct data.

### III. AN EMPIRICAL STUDY

#### 1. Theoretical Background and Hypotheses

Among the hypotheses regarding labor market, there exists the substitution hypothesis and buffer hypothesis. The former causes “added worker effect” while the latter raises “discouraged worker effect” on the labor market respectively. According to the substitution hypothesis, employers are more pressed to save costs for maximizing their profit during economic crisis or recession. They try to replace male workers who tend to receive relatively higher wage than female workers, who are more flexible in terms of hiring and less costly (Humphrey, 1988). There exists similar argument that is discussed among Marxist feminists (e.g. Beechey, 1979).<sup>3</sup> They argue that capitalist market generates social and economic inequality by allowing employers to substitute male workers for female workers during the period of crisis in order to maximize their profit. Employers consider female workers as a “reserve army of labor” (Hartmann, 1979), which they exploit as cheap and disposable labor. As a result, female labor force goes in and out of the labor market counter-cyclically.

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<sup>3</sup> Lee, Kye Woo and Cho Kisuk. “Female Labour Force Participation During Economic Crises in Argentina and the Republic of Korea” *International Labour Review*, Vol. 144 (2005)

In the buffer hypothesis, female workers are regarded as a flexible reserve of labor so that they react to labor market pro-cyclically. Female workers have higher chances to enter the labor market during the period of economic prosperity, since most productive male workers already have jobs, but when economic conditions deteriorate, female workers who commonly have lower level of education than male workers are suffering from extensive unemployment. This hypothesis is theoretically derived from human capital theory which regards labor market as a commodity market where workers sell their labor and are paid in accordance of their level of productivity. Decisive factors of productivity are levels of education, training, skills and experience (Becker, 1971). According to this theory, female workers who have not accumulated enough human capital have higher risk to be crowded out. Some scholars argue that the female labor does not compete with or substitute male labor, since women also dedicate themselves to different workplaces such as domestic work and low-wage work. This mechanism is used for justifying the existence of male-dominant society and sex-typed division of labor. Female workers have low-wage job which is related to domestic work in labor market, and when they return home they are availed of 'second shift'; domestic work. This social convention affects our perception in ways that female and male have their genuine gender role, and female workers are only secondary breadwinner (Hartmann, 1979).

Consequently, many female workers are relatively more employed in new and expanding field of economy rather than in the areas of the labor market which is traditionally perceived as men's work.

Considering these theoretical backgrounds, I propose two hypotheses and attempt to put forward evidence to support them. First hypothesis is that female workers are 'pulled out' of labor market during economic crisis. It will be examined with panel data covering over 160 countries and the period of 1960-2011. The dependant variable is the ratio of female to male participation rate which is following;

Ratio of Female Participation Rate  
to Male Labor Participation Rate (RFMLP)

= (The Proportion of Female Population Ages 15 and Older that is  
Economically Active) / (The Proportion of Male Population Ages 15 and  
Older that is Economically Active)

This hypothesis is supported by buffer hypothesis and combination of patriarchy and capitalism, in which female labor participation rate may decrease in the event of crisis.

**Table 1** Gender Wage Gap in Median Earnings of Full-Time Employees

	1980	1985	1990	1995	2000	2005	Latest year
Australia	18.8	19.6	18.2	14.5	17.2	15.8	11.9
Austria					23.1	22.0	20.9
Belgium					8.8	11.5	9.9
Canada					24.0	21.8	20.4
Czech Republic					21.8	18.1	20.7
Denmark					14.7	12.0	12.3
Finland	26.6		22.9	22.4	20.4	19.5	21.2
France	19.7	17.0	15.3	10.3	10.8	12.1	12.0
Germany		27.0	27.2	23.5	23.0	24.8	25.4
Hungary					13.2	4.0	2.2
Ireland					19.7	16.1	15.0
Italy			19.5	17.1			1.3
Japan	41.7	41.7	40.6	37.1	33.9	32.8	30.7
Korea		51.9		43.1	40.7	38.3	38.8
Netherlands		25.6	25.0	23.1	21.4	16.7	17.0
New Zealand					7.1	9.6	7.8
Poland				19.9		6.7	10.0
Spain						12.5	11.8
Sweden	14.5	18.4	19.6	19.0	15.5	14.9	15.4
Switzerland				25.5	25.7	19.6	19.5
United Kingdom	35.3	33.6	31.2	26.6	24.0	20.4	21.0
United States	36.6	33.0	28.5	24.6	24.5	19.8	20.1

Source: OECD Employment Database, Mar 2010

Secondly, gender wage gap becomes wider after the financial crisis. The female workers who have retained their jobs in the crisis undergo wage cut not because of the crisis, but because of being women. There exists evidence of gender discrimination after crisis. **Table 1** suggests the trend of gender wage gap getting narrower, but there still exists a huge difference between two sexes. Such difference is also found in **Figure 1**, if the size of the economy of each country is ignored.

**Figure 1** Gender Gap in Average Earnings of Full-Time Employees

**Source:** OECD Employment Database, Mar 2010 and EU Survey on Income and Living Conditions and National Sources, 2006 (2008 or latest year)

## 2. Data and Methodology

### (1) Model Set-up

In general terms, this model can be specified as:

(Eq. 1)

$$RFMLP_{it} = \beta_1 C + \beta_2 Crisis_{it} + \beta_3 FDI_{it} + \beta_4 OP_{it} + \beta_5 Ren1_{it} + \beta_6 Ren2_{it} + \beta_7 Ren3_{it} + \varepsilon_{it}$$

(Eq. 2)

$$WG_{it} = \beta_1 C + \beta_2 Fcost_{it} + \beta_3 FDI_{it} + \beta_4 OP_{it} + \beta_5 Comrate1_{it} + \beta_6 Ren1_{it} + \beta_7 Ren2_{it} + \beta_8 Ren3_{it} + \beta_9 Enf3_{it} + \varepsilon_{it}$$

First, my empirical analysis focuses on gender inequality. The dependant variable is ratio of female to male labor participation rate (*RFMLP* (Eq.1)) which means the difference of labor market participation, where *RFMLP<sub>it</sub>* represents ratio of female to male labor participation rate in country *i* at time *t*. Labor force participation rate is the proportion of the population ages 15 and older that is economically active: all people who supply for the production of goods and services during a specified period. The dependant variable of (Eq.2) is sectoral gender wage gap (*WG*). *WG<sub>it</sub>*

represents ratio of female to male wage difference in an economic sector of country  $i$  at time  $t$ .  $WG$  is computed with the data which is extracted from Laborstat (International Labour Organization Databases). The estimated results of coefficient would explain which the most prevailing effect on the  $RFMLP$  and  $WG$  is due to the occurrence of crisis.

Secondly, economic crisis ( $Crisis$ ) and fiscal cost ( $Fcost$ ) are independent variables in the (Eq.1) and (Eq.2) respectively.  $Crisis$  represents the measure of economic crisis which is taken from Laeven and Valencia (2008). Economic  $Crisis$  is a variable which takes a value of one if there is a crisis in a country and zero otherwise. The year that a country had currency crisis and debt crisis is excluded.

Thirdly,  $FDI$ ,  $OP$ ,  $Ren1$ ,  $Ren2$ ,  $Ren3$ , and  $Comrate1$  are control variables and  $\varepsilon_{it}$  is the error term. The control variables include the ratio of female to male primary ( $Ren1$ ), secondary ( $Ren2$ ) and tertiary ( $Ren3$ ) education, which is the percentage of girls to boys enrolled at respective level in public and private schools. Trade proportion of GDP ( $OP$ ) and FDI ( $FDI$ ) of total GDP are utilized as control variables with the guidance of previous literatures (Choudhry, Marelli, and Signorelli 2010).

## (2) Data Description

### 1) Dependant Variables

I find time-series (1960-2011) and cross-country data (over 160 countries) from reliable source.<sup>4</sup> *RFMLP* from 1960 to 2011 is extracted from World Bank. The definition of *RFMLP* is followed:

*RFMLP*

= (The Proportion of Female Population Ages 15 and Older that is Economically Active) / (The Proportion of Male Population Ages 15 and Older that is Economically Active)

In the (Eq.2), the dependant on gender wage gap of each economic sector is calculated by author. *WG* represents gender pay gap among each economic sector.

### 2) Independent Variables

The data of crisis derives from the paper of Laeven and Valencia (2008). *Crisis* represents the measure of financial crisis. When a country's corporate and financial sector experience a large number of defaults, and financial institutions and corporations face great difficulties repaying

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<sup>4</sup> World Development Indicators, Laborstat and EUROSTAT

contracts on time. Therefore, non-performing loans increase sharply and all or most of the aggregate banking system capital is exhausted, and non-systemic banking crises (is defined as crises) limited to a small number of banks.

*Fcost* denotes the net fiscal cost, expressed as a percentage of GDP, over the period  $[t, t+5]$ , where  $t$  denotes the starting year of the crisis. Fiscal cost estimates are from Hoelscher and Quintyn (2003) and Honohan and Laeven (2003), IMF Staff reports, and publications from national authorities and institutions. I take data of *Fcost* from IMF Working Paper 2008.<sup>5</sup>

### 3) Control Variables

The level of education measured by ratio of female to male primary, secondary and tertiary enrollment (Ren1, Ren2, Ren3), trade openness (OP), FDI are used as variables to control for factors other than crisis that could affect gender inequality.

I put total GDP as a control variable for absorbing volume effect and balancing each country, unfortunately, I could not find statistically significant result.

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<sup>5</sup> Luc, Laeven, and Valencia, Fabian “Systemic Banking Crises: A New Database”, *IMF Working Paper* 2008

**Table 2** Data Description and Sources

<b>Variable</b>	<b>Definition</b>	<b>Source</b>
Dependant Variables		
Ratio of Female to Male Labor Participation Rate (RFMLP)	Labor force participation rate is the proportion of the population ages 15 and older that is economically active: all people who supply labor for the production of goods and services during a specified period.	World Development Indicators
Wage Gap Regarding Economic Sectors (WG)	Calculated by author	Laborstat (ILO Database)
Independent Variables (Explanatory)		
Financial Crisis (Crisis)	When a country's corporate and financial sector experiences a large number of defaults and financial institutions and corporations face great difficulties repaying contracts on time. Therefore, non-performing loans increase sharply and all or most of the aggregate banking system capital is exhausted) and non-systemic banking crises (is defined as crises limited to a small number of banks).	Laeven and Valencia (2008)

Fiscal Cost (Fcost)	Fiscal Cost denotes the net fiscal cost, expressed as a percentage of GDP, over the period $[t, t+5]$ , where $t$ denotes the starting year of the crisis. Fiscal cost estimates are from Hoelscher and Quintyn (2003), Honohan and Laeven (2003), IMF Staff reports, and publications from national authorities and institutions.	Honohan and Laeven (2003)
Control Variables		
Ratio of Female to Male Primary, Secondary and Tertiary Enrollment (Ren1, Ren2, Ren3)	Ratio of female to male primary enrollment is the percentage of girls to boys enrolled at respective level in public and private schools.	World Development Indicators
School enrollment, primary, Secondary and Tertiary Enrollment, Female (Enf1, Enf2, Enf3)	Gross enrollment ratio is the ratio of total enrollment, regardless of age, to the population of the age group that officially corresponds to the level of education shown. Primary education provides children with basic reading, writing, and mathematics skills along with an elementary understanding of such subjects as history, geography, natural science, social science, art, and music.	World Development Indicators
Primary completion rate, female (Comrate1)	Primary completion rate is the percentage of students completing the last year of primary school. It is calculated by taking the total number of students in the last grade of primary school, minus the number of repeaters in that grade, divided by the total number of children of official graduation age.	World Development Indicators

Openness (OP)	Trade is the sum of exports and imports of goods and services measured as a share of gross domestic product.	World Development Indicators
FDI (FDI)	Foreign direct investment are the net inflows of investment to acquire a lasting management interest (10 percent or more of voting stock) in an enterprise operating in an economy other than that of the investor. It is the sum of equity capital, reinvestment of earnings, other long-term capital, and short-term capital as shown in the balance of payments.	World Development Indicators
Primary completion rate, female	Primary completion rate is the percentage of students completing the last year of primary school. It is calculated by taking the total number of students in the last grade of primary school, minus the number of repeaters in that grade, divided by the total number of children of official graduation age.	World Development Indicators

### 3. An Empirical Results

To estimate these equations, fixed effects model has been applied. In the estimated (Eg.1), one dummy variable *Crisis* is included. This variable takes the value of unity for the event year and zero otherwise.

Results of the econometric analysis are exhibited in the **Table 3**. After financial crisis, women rather than men have more chance to lose their

job. This is consistent with the recent empirical study done by Choudhry (2011). As seen in the **Table 3**, *Crisis* affects female labor participation regardless of the impact of education. Hausman specification test suggests that for Models of **Table 3** and **Table 4** fixed estimators are suitable for analysis.

**Table 3** shows estimation results of (Eq.1). This supports the first hypothesis and examines the effect of *Crisis* on *RFMLP*, controlling for level of education, the percentage of trade volume and foreign direct investment. The results indicate that there exists negative and significant relationship between the event year of crisis and the gender gap of labor participation rate. The analysis reported in **Table 4** provides estimated results of (Eq.2) which examines second hypothesis and presents the relationship between economic sectoral gender wage and crisis (*Fcost*: fiscal cost after 5 years). (Eq.2) examines the effect of change of fiscal cost on gender wage gap, controlling for the level of education, openness of trade and foreign direct investment.

According to the results of two panel regression analyses, *Crisis* coefficient is negative and statistically significant. This result implies that the financial crisis may lead to declining of female labor participation in the labor market. The ratio of female to male participation rate can be an alternative for gender gap, and it is assumed the entrance condition for female has been severe after crisis. In other words, female labor forces are

driven out of labor market owing to the crisis. This may be due to employers' discrimination which they consider women's turnover rate (maternity leave, babies and domestic work) will be higher than men's, so women are discriminated regardless of their abilities. Model 1, 2, 3 and 5 support this assumption. Buffer hypothesis has explanatory power in this study.

Secondly, fiscal cost that has incurred after economic crisis and gender wage gap in terms of each economic sector are relevant. The relationship between the two variables is negatively related and statistically significant (**Table 4**).

Thirdly, trade openness and FDI inflow have positive relation with *RFMLP*, and it shows that the neoclassical theory of labor market fails to explain the phenomenon after economic crisis.

Lastly, the control variables of education affect negatively on gender inequality as 'Human capital theory' indicates. Model 5 and Model 6 of **Table 2** indicate that gender gap of tertiary education lead to the difference of economic performance. While primary and tertiary education is positively related to gender gap, the enrollment rate of secondary education has opposite effect (Model 6). This may result from the time lag which education would take effect. Further study is required to verify which level of education is the most efficient and effective for narrowing gender inequality.

**Table 3** Impact of Crisis on Female to Male Labor Participation Rate

<b>Variables</b>	<b>Model 1</b>	<b>Model 2</b>	<b>Model 3</b>	<b>Model 4</b>	<b>Model 5</b>	<b>Model 6</b>
Crisis	-1.69 (-3.8)	-1.7 (-3.8)	-1.33 (-3.0)	-0.84 (-1.69)	-1.16 (-2.11)	-0.8 (-1.28)
FDI		0.03 (7.6)	0.02 (4.84)	0.09 (1.22)		
OP			0.44 (10.81)	0.41 (8.52)		
Ren1				0.09 (5.17)		0.11 (4.24)
Ren2						-0.07 (-3.82)
Ren3					0.6 (14.18)	0.67 (13.08)
Constant	67.1 (1029.5)	67.3 (955.8)	63.9 (186.2)	55.9 (34.3)	61.27 (130.07)	57.28 (26.79)
R-Square	0.004	0.002	0.05	0.05	0.1	0.1
Prob>chi2	0.0000	0.08	0.04	0.17	0.0000	0.0000
No. of Obs.	<b>3597</b>	<b>3303</b>	<b>3196</b>	<b>2254</b>	<b>1980</b>	<b>1664</b>
No. of Groups	<b>172</b>	<b>168</b>	<b>166</b>	<b>163</b>	<b>165</b>	<b>163</b>

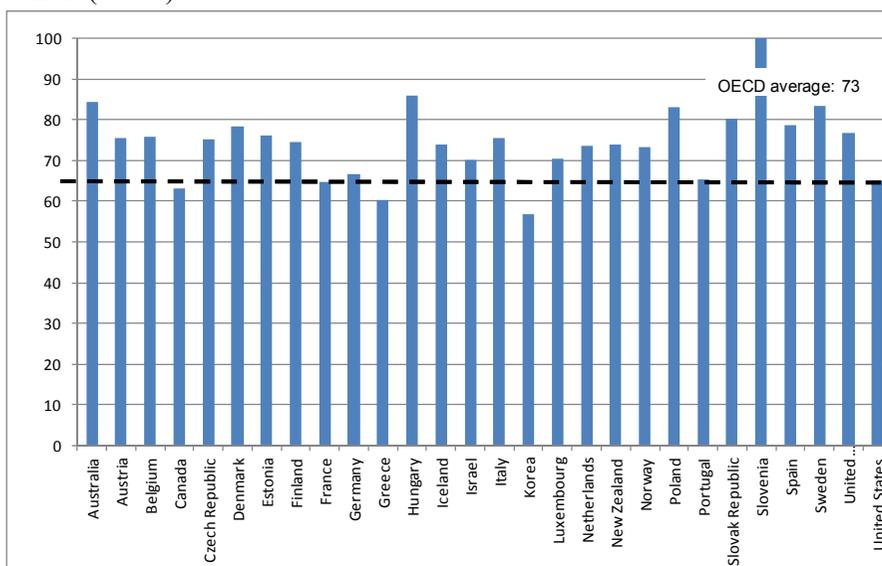
**Table 4** Impact of Crisis on Gender Wage Gap

<b>Variables</b>	<b>Model 1</b>	<b>Model 2</b>	<b>Model 3</b>	<b>Model 4</b>
Fcost	-0.005 (-2.23)	-0.004 (-2.00)	-0.004 (-2.13)	-0.004 (-1.99)
FDI	6.72E-06 (0.04)	-0.00003 (-0.21)	0.00002 (1.22)	-7.95E-06 (-0.05)
OP	0.00002 (1.15)	0.00001 (0.9)	0.00004 (2.39)	0.0004 (1.18)
Comrate1	-0.00003 (-0.66)	7.22E-07 (0.01)	-0.000003 (-0.67)	-9.18E-06 (-0.17)
Ren1				0.00004 (0.23)
Ren2			-0.00004 (-0.69)	-0.00002 (-0.32)
Ren3		0.0002 (1.43)		0.0001 (1.00)
Constant	0.82 (43.11)	0.79 (27.26)	0.85 (12.65)	0.75 (3.88)
R-Square	0.002	0.03	0.001	0.008
Prob>chi2	0.0000	0.0000	0.0000	0.0000
No. of Obs.	<b>8102</b>	<b>6909</b>	<b>7713</b>	<b>6748</b>
No. of Groups	<b>1295</b>	<b>1201</b>	<b>1252</b>	<b>1166</b>

## IV. CONCLUSION AND IMPLICATION

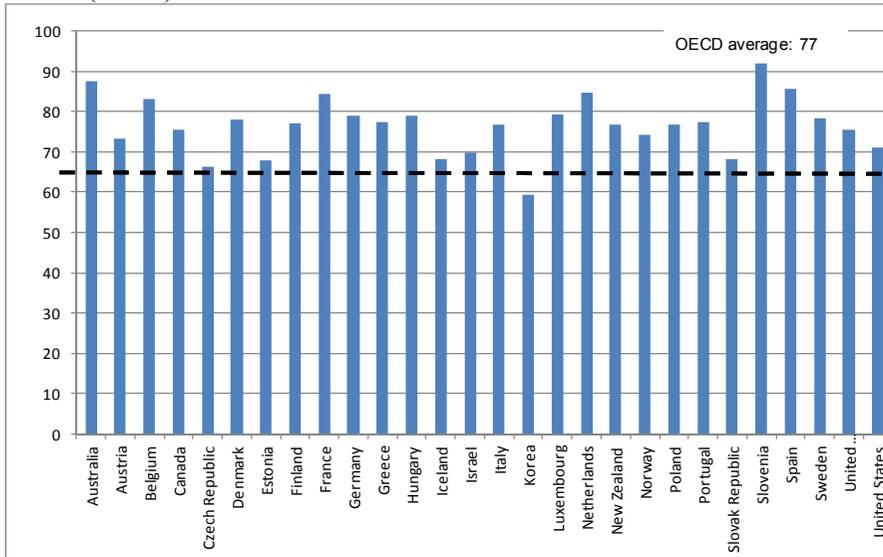
Economic crisis is the most unpleasant phenomenon which changes our way of living. Economic crisis has emerged cyclically. This study has attempted to establish the impact of economic crisis on global gender inequality. Proceeding from what has been said above, it should be concluded that (1) crisis can aggravate gender inequality; (2) crisis also can accelerate gender wage gap of each economic sector; (3) the disparity of level of education between two sexes contributes to widening gender wage gap; and (4) trade openness does not help in narrowing gender inequality.

**Figure 2.** Average Annual Earning of Females as a percentage of males by age-cohort (35-44)



**Source:** Education at a Glance, 2010 ([www.oecd.org/edu/eag2010](http://www.oecd.org/edu/eag2010))

**Figure 3.** Average Annual Earning of Females as a percentage of males by age-cohort (55-64)



Source: Education at a Glance, 2010 ([www.oecd.org/edu/eag2010](http://www.oecd.org/edu/eag2010))

As we have seen previously, gender discrimination is perceived *natural* and even *fair*. During the economic recession, government may take special measures to solve the problem with common knowledge and gender bias to a certain extent. When a country faces economic crisis, female workers are more likely to be affected disadvantageously than male workers due to long-term trend of social prejudice against women. It is required that establishing special program or institute to encourage women to remain in the labor market and to development their human capital. It is a change of social attitude that whole society considers childbirth and mothering as not only personal but as social responsibility. Progress remains slow and the situations have even deteriorated in certain countries even though the

reduction of the gender wage gap is a major political objective for governments and the societies. Results of this study leave more to be investigated and answered and previous tentative conclusions await further refinement and correction in the light of further research.

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[Accessed at 12 May 2012]

Korean Statistical Information Service <http://kosis.kr/>

Statistic Korea <http://kostat.go.kr/>

## 국문초록

본 연구는 국제경제위기와 남녀불평등의 관계를 160여 국가의 1960-2011년 패널 자료를 바탕으로 실증 분석하였다. 실증 분석 결과 경제위기와 남녀 경제 참여율, 경제분야별 남녀 소득격차의 관계에 대해 통계적으로 유의미한 결과를 얻었다. 즉, 경제위기가 발생하면 여성의 경제 참여율이 하락하고 직업을 유지한 여성일 경우에 임금의 하락을 경험하여 경제적 불평등이 커진다는 것을 실증적으로 증명하였다. 이와 더불어 남녀간 소득격차는 남녀의 교육수준 차이와 연관이 있다는 것도 알 수 있었다. 그러나 경제 위기와 정부교육지출의 관계에서는 유의미한 결과를 얻지 못했다.

실증분석에 따르면 남녀 교육수준의 차이가 남녀의 경제적 격차로 이어지며 경제위기가 이 현상을 가속화하는 것으로 나타났다.

주요단어: 경제위기, 외환위기, 남녀간 소득격차, 남녀 불평등, 소득격차, 남녀 경제참여율 차이

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