**SOCIOECONOMIC POLARIZATION AND PERSONAL WELL-BEING UNDER
NEOLIBERAL RESTRUCTURING: IMPLICATIONS OF SOUTH KOREA
AFTER THE 1997 ASIAN FINANCIAL CRISIS**

by

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To My Beloved Family

Acknowledgements

It was a long journey. Not only was it longer than I expected, but it was also different from what I had imagined before embarking on it: Unlike what I naively hoped at the beginning, working toward Ph.D. has been a totally humbling experience through which I have been able to realize more of my limits than my potential. However, thanks to the wonderful people who have been tremendously supportive and enthusiastic to my adventure, I have also been able to come this far despite the occasional blips in the course. First of all, I cannot thank enough for extremely dedicated and gifted professors here in the Michigan. In particular, my advisor, Dr. Yu Xie, has always exemplified an inspiring sociologist at its best through his excellent work and wholehearted support for students; and all the remarkable professors sitting on my dissertation committee – Drs. David Harding, Mark Mizruchi, and Nojin Kwak – have also demonstrated to me why the Michigan is one of the best places on the planet to study sociology. In addition, I am also grateful for all the brilliant and supportive friends and colleagues who I met here in Ann Arbor. Lastly, I want to finish with another wonderful reason that reserves the Michigan and Ann Arbor for the best place in my heart – my beloved wife, Dr. Hyein Chang, who I met here, fell in love with, and continue to dream together even after this long journey.

Preface

The primary interest of sociological studies lies in the investigation of human interactions embedded in social structures and institutions. Based upon this premise, this dissertation aims to examine how various aspects of human well-being are affected by a wholesale institutional shift toward a free-market economic regime from a dirigiste developmental framework. In particular, drawing on the decadal experience of South Korea after the 1997 Asian Financial Crisis (AFC), I study the impact of the so-called neoliberal socioeconomic restructuring on the welfare of the general public by exploring how associations between important measures of personal well-being (e.g. education-earnings) have changed along with the intensification of the new political economy after the AFC. Focusing on the socioeconomic consequences of the neoliberal transition that occurred at the particular historical juncture of the Korean capitalist development, the implications of the epochal institutional shift for individual well-being are to be examined in light of the sociological promise.

Neoliberalism, a short-hand of neoclassical liberalism, is an ideology, philosophy of political economy, and a mode of governance in the capitalist economy that believes in the supremacy of free-market mechanisms for the distribution of all sorts of goods and services. Initially introduced in the U.S. and the U.K. as a set of the supply-side policy solutions to the problems of the stagflation in the 1970s, neoliberalism and the

socioeconomic restructuring based on its tenets aim to improve efficiency and profitability across the board through market forces free of external interventions, particularly from the state. Accordingly, its primary tenets include deregulation from the state, privatization of the public enterprise, and liberalization of the trade, all of which amount to a complete departure from the ideas and practices of the managed capitalism in the post-war period up to the 1970s. Although it began as a minor ideational social experiment within major capitalist countries at first, ever since the neoliberal capitalist accumulation gained its ideological and practical primacy in the domain of policy making, academia, and the international financial institutions, the neoliberal practice has become widespread across the globe over the last three decades, still being the dominant mode of capitalist developmental regime even at the beginning of the twenty-first century.

South Korea, once praised as an exemplar of the state-led economic development in the aftermath of the Korean War, also began to adopt the logic and practice of neoliberalism since the early 1980s. Due to the legacy of the strong developmental state and the geopolitical peculiarities of South Korea, however, the substantial implementation of the neoliberal practice had not been initiated until the early 1990s, and only after the 1997 Asian Financial Crisis, began the full range of the neoliberal restructuring by influential domestic and international policy makers taking advantage of the crisis situation. Although the onset of the neoliberal transformation was relatively slow and late in South Korea compared to other industrial countries, its progression afterwards has not: With the comprehensive neoliberal structural adjustment and regulatory reforms over the last decade or so, the government, corporate, financial, and labor sectors of South Korea have been thoroughly reengineered in the short period of

time and become qualitatively different socioeconomic entity that fits best to the current

mode of neoliberal globalization.

As of 2011, South Korea has successfully become a neoliberal economy by any

global standards and fully integrated into the global market with a steady economic

growth since the epochal event in 1997. However, the social costs of the fundamental

socioeconomic restructuring toward the new political economy have been as much drastic

as the speed and magnitude of the transition: With the dissipating government support

and institutional regulations in favor of free-market operation, the level of inequality,

poverty, and insecurity in post-crisis South Korea has substantially increased to the

unprecedented level while the benefits of the global integration and the post-crisis

economic growth have not been shared equally across social strata. As with other

countries who adopted the neoliberal practice before South Korea, the rising economic

tide over the post-crisis period did not lift all boats but the select few, and this further

confirmed that increasing inequality and insecurity is the rule rather than the exception

under the neoliberal developmental regime.

Against this context, I study the decadal experience of South Korea after the

1997 AFC in order to examine the long-term impacts of the crisis and the concurrent

neoliberal restructuring on the welfare of the general public, particularly focusing on its

social consequences for various aspects of personal well-being. Utilizing the Korean

Labor Income Panel Study (KLIPS) and diverse statistical methods for tracing the

changes, the trajectories of both the material and subjective measures of personal well-

being (e.g. income, consumption, and life satisfaction) are studied in relation to principal

socioeconomic factors (e.g. education, family wealth, and marital status respectively)

under the general trend of increasing inequality and polarization after the AFC. In this attempt to investigate the socio-demographic mechanisms through which the impact of the post-crisis neoliberal restructuring on personal well-being has been mediated or moderated, not only do I emphasize the significance of institutional forces in shaping human interactions but also seek viable options for sustainable socioeconomic development in the twenty-first century through the reinterpretation of the experiences of South Korea in light of the global political economy.

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ABSTRACT

SOCIOECONOMIC POLARIZATION AND PERSONAL WELL-BEING UNDER NEOLIBERAL RESTRUCTURING: IMPLICATIONS OF SOUTH KOREA AFTER THE 1997 ASIAN FINANCIAL CRISIS

by

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Over the last three decades, the world has witnessed another fundamental

institutional shift in the history of capitalist development. In the wake of the series of

economic crises in the 1970s, the so-called neoliberalism and socioeconomic

restructuring based on its tenets arose as a solution to the problems of stagflation and

quickly spread across the globe thanks to its ideational and practical appeals. South Korea

has not been an exception to the worldwide current of the neoliberal globalization and

pursued the neoliberal restructuring since the early 1980s, but particularly actively after

the 1997 Asian Financial Crisis. As a consequence of the comprehensive neoliberal

structural adjustment based on free-market mechanisms, however, South Korea has

experienced a substantial increase in inequality, poverty, and insecurity over the last decade or so. Against this context, I examine both the material and subjective aspects of personal well-being in order to seek the implications of the post-crisis neoliberal restructuring for the general welfare of the Korean society in particular, and other neoliberal countries in general. In the first substantive chapter, the association between education and rising earnings inequality in post-crisis South Korea is studied to measure how much of the increase in the post-crisis earnings inequality is due to diverging earnings returns to education. Second, the relationship between family wealth and household consumption is examined over the course of economic crisis and recovery in post-crisis South Korea, and I further investigate if possession of family wealth has a buffering effect on the level of household consumption over economic crisis. Lastly, the association between marital status and the level of life satisfaction is studied at the time of economic crisis as well as during the subsequent period of economic recovery. By examining the subjective aspect of personal well-being in relation to marital status in post- crisis South Korea, I evaluate if the "marriage premium" still holds positive even in the period of severe economic hardships. Based on these theoretical and empirical observations, I discuss in the concluding section a more viable form of capitalist development for the twenty-first century than the current neoliberal mode of globalization.

Chapter 1

Introduction: The Political Economy of Development of South Korea over the Last Five Decades

The impact of economic crisis on one's welfare is not proportionate: Those who possess substantial socioeconomic resources (e.g. income and wealth) at the time of the crisis are better protected from the vagaries of the challenging economic conditions, and the probability of survival and post-crisis prosperity is also highly contingent on the pre-existing individual circumstances.[1] In addition, subsequent opportunity structures during an ensuing recovery period are also unevenly distributed according to one's economic durability at the time of the hardships, which is once again largely defined by the amount of socioeconomic resources that individuals can draw over the course of economic crisis.

This unequal nature of economic crisis, however, is not only a function of differential *individual* circumstances but also of preexisting *social* structures and institutions. Depending on the type of economic regime that a country pursues as a whole, for instance, the extent to which individual members of the society experience the crisis situation – or socioeconomic difficulties in general – greatly varies even for those possessing the same level of individual resources. In particular, the disproportionate

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[1] As also implied in the Korean and Chinese word of 'crisis' (위기 and 危機 respectively), the crisis situation is considered as a crisis(危)-cum-an opportunity(機) for different social groups of people.

impact of economic crisis over individuals can be substantially moderated by proactive government interventions and policies temporarily protecting them from the external shock: If the government, for example, promptly implements expansionary fiscal and monetary policies at the time of the recession, some unfavorable individual circumstances can be effectively ameliorated by those favorable institutional measures, and vice versa. Even if the implementation of the active governmental interventions is not always feasible or desirable, depending on the causes and conditions of the crisis, it cannot be denied that the disproportionate impact of economic crisis on one's welfare is substantially delineated by the socioeconomic policies and institutional settings, and the government, as a holder of the largest socioeconomic resources of the society, could effectively function as the last resort.

However, what if the government and society in general are unable to provide such public provisions during the extended period of economic crisis? In addition, taking advantage of the crisis situation, what if external institutions force the government to carry out at least temporarily malignant socioeconomic policies whose long-term societal consequences are not warranted positive either? To make matters worse, if the government and other influential sectors of the society are also ready, if not eager, to join the venture of "less government, more free market" when indeed more government support and regulations are needed, what would happen to those people already hit hard by economic crisis itself?

Whether intended or not, this was the situation that South Korea and some other East and Southeast Asian countries – notably Thailand and Indonesia – had to confront when their economies were severely debilitated by the 1997 Asian Financial Crisis (the

AFC hereafter). Having begun with the asset bubble burst in Thailand over the summer of 1997, the AFC rapidly spread to the rest of Southeast and East Asian countries by the end of the same year. Despite huge debates on the nature and causes of the AFC, the *proximate* causes of the economic crisis can be summarized as the unfortunate combination of 1) the downturn of the domestic economy before the crisis, 2) the swift and huge exodus of foreign capital from financial sectors, and 3) the premature and aggressive capital account liberalization that further exacerbated the vulnerability of the affected economies in the era of global financial system (Krugman 2009b; Sachs and Woo 2000; Stiglitz 2003; Wade 1998a; Woo 2007a). This sudden capital flight and the concomitant loss of foreign "investors' confidence" in the crisis-stricken economies immediately incapacitated both stock markets and foreign exchange rates, and in the end, the hard-hit countries, such as South Korea, Indonesia, and Thailand, had to seek foreign assistance from the International Financial Institutions (IFIs)[2] in order to avoid total economic collapse derived from the financial meltdown. In case of South Korea, the government asked the International Monetary Fund (IMF) for bailouts in November 1997 when its economy was already deep into trouble, and the IMF 'rescue package' of then recode-high 57 billion dollars was signed in the following month after protracted negotiations between the IMF and the government (IMF 1997).

In exchange for the financial assistance arranged by the IMF, however, the debtor nations had to accept the aforementioned ironic socioeconomic policies as a necessary condition for the bailout and were required to implement the so-called 'neoliberal structural adjustment programs' designed by the IMF and other International Financial

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[2] The International Monetary Fund and the World Bank are the major international financial institutions.

Institutions during the contract period.[3] Although the effectiveness of the application of the 'one-size-fits-all' neoliberal program based on the market fundamentalism to the AFC situation was doubted by many professionals at the time[4], the IMF administered the promised bailout package to the country only when the 'progress' was made in terms of the implementation of the conditionality. Moreover, in some recipient countries – notably South Korea – there existed a group of reform-minded elites who were more than willing to embrace the wide-raging structural adjustment and regulatory reforms suggested by the IMF even if a substantial amount of social costs was expected to incur when the program was implemented at the time of the national crisis. Regardless, the neoliberal transformation project for market efficiency and global competitiveness significantly began to take shape in these former dirigiste Asian economies as a joint venture of the influential domestic and international agents taking advantage of the crisis situation.

In the immediate wake of the AFC, however, the real economy of each country fell into a serious downward spiral of recession primarily due to the orthodox neoliberal policies – Raising interest rates to stem the outflow of capital and cutting budgetary

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[3] The structural adjustment program recommended by the IMF at the time consisted of two sets of policy measures; first, as an immediate measure to recover 'investor's confidence' right after the crisis, the program called on crisis-struck nations to cut back on government spending to reduce deficits, allow insolvent banks and financial institutions to fail, and aggressively raise interest rates based on the reasoning that these steps would restore confidence in the nations' fiscal solvency, penalize insolvent companies, and protect currency values. Secondly, as a measure for longer-term economic restructuring aligned with the logic of neoliberalism, the debtor nations were required to implement a set of socioeconomic policies that emphasize more of the role of free-market mechanisms vis-à-vis the state intervention in the distribution of goods and services.

[4] Critics noted the contradictory nature of these policies, arguing that in a recession, the traditional Keynesian response was to increase government spending, prop up major companies, and lower interest rates. The reasoning was that by stimulating the economy and staving off recession, governments could restore confidence while preventing economic loss. They pointed out that the U.S. government had pursued expansionary policies, such as lowering interest rates, increasing government spending, and cutting taxes, when the United States itself entered a recession in 2001, and arguably the same in the fiscal and monetary policies during the recent Great Recession.

outlay to rebuild confidence in their finances at the time of economic crisis generated a

tremendous amount of bankruptcies, unemployment, and social unrest. In South Korea,

for instance, more than 10,000 firms went into bankruptcy in the following three months,

an unemployment rate tripled in a year, and a suicide rate reached the highest level

among the OECD member nations.[5] With 'artificial' government interventions and

regulations restricted by the IMF agreement and by the government's own will to a

substantial extent, the disproportionate impact of the economic crisis hastened to unveil

its naked nature, thrusting most vulnerable individuals in these countries into the double

jeopardy of economic crisis on the one hand and the dissipating institutional supports on

the other. As a result of this inopportune combination of economic crisis and the

simultaneous implementation of free-market structural reforms, the event that had started

as an exchange rate disaster or an external liquidity crisis became a full-fledged economic

crisis with serious social consequences, making the experience of the AFC a regional

equivalent of the Great Depression at the end of the twentieth century (Stiglitz 2003;

Wade 1998a).

As of 2011, more than a decade of time has passed since the worst economic

recession ever experienced by the Asian continent. Even if a decade or so may not be a

long enough time to conclusively assess the implications and consequences of the AFC

and the accompanied neoliberal restructuring, it is definitely the moment to critically

evaluate the intended and unintended consequences of the epochal event in the modern

capitalist history, especially when the entire world is suffering from another global

financial crisis resembling the AFC in some respects. In addition, by shedding new light

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[5] Bank of Korea (http://ecos.bok.or.kr/) and World Health Organization (http://www.who.int/)

on the various consequences of the recent large-scale economic recession before the current global financial crisis, not only do we expect to derive lessons from the past in order not to make the undesirable history repeat itself but also to have an opportunity to reconsider the systematic nature of economic crisis under the contemporary financial capitalism. Moreover, utilizing the passage of time as another critical tool of analysis, we can also evaluate the long-term consequences of the crisis vis-à-vis its immediate impacts on the general welfare of the individuals in the crisis-afflicted countries. Unlike the economic and political aspects of the crisis, studies on its long-term *social* impacts and broad implications for social stratification and inequality have been rather sparse in the existing literature (Chu and Hill 2001; Pirie 2008; Van Hoa 2000). Considering that social consequences and stuructural changes derived from economic crisis often times do not fully fledge until the immediate impact of crisis abates, discussion on the social ramifications of the crisis at this moment – in conjunction with those of the economic and political changes for the last decade – seems more than timly ever.

In this regard, I study the decadal experience of South Korea after the 1997 AFC in order to examine the long-term consequences of the crisis and simultaneous neoliberal reforms, focusing on their impacts on personal well-being. In particular, I investigate the patterns and trajectories of increasing *socioeconomic inequality and polarization* in post-crisis South Korea in relation to both *material* and *subjective* measures of personal well-being, such as income, consumption, and the level of life satisfaction.[6] In addition, because it has already been well proven in other early adopters of neoliberalism (e.g. the U.S. and the U.K. since the late 1970s) that one of the most visible social consequences

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[6] Although the three measures are far from exhaustive to cover the wide range of personal well-being, the chain of 'income-consumption-subjective level of life satisfaction' is believed to comprise substantial areas of one's well-being in the contemporary capitalist society.

of neoliberal reforms has been a massive increase in income inequality and the concentration of wealth (Krugman 2009a; Levy and Temin 2007; Piketty and Saez 2003; Wolff 2002), I additionally investigate various social mechanisms or intervening processes of the increasing inequality and polarization, using South Korea as another case that has undergone the qualitative socioeconomic transition most recently.

On the basis of various national statistics and nationally representative longitudinal panel data, three core research questions are to be addressed throughout this study: 1) For the last decade or so, has South Korea shown a similar pattern of increasing socioeconomic inequality and polarization as in the other early neoliberal countries? 2) If so, what are the intervening socioeconomic mechanisms through which the impact of the inequality and polarization on diverse personal well-being measures has been mediated or moderated? To be more specific, did the major socio-demographic factors such as one's level of education, family wealth, and marital status play a crucial role in the mediation or moderation of the disproportionate impact of the economic crisis and the restructuring processes? 3) Lastly, what are the long-term social consequences of the neoliberal restructuring and the concomitant market liberalization measures that occurred amid the worst economic recession of the country? Does it also have any implications for the study of social stratification and inequality in the current mode of globalization? Focusing on these three major questions, the decadal experience of South Korea after the AFC is to be analyzed under the general theoretical framework of the global political economy.

In the remainder of this introductory chapter, I first deliberate in detail the domestic and international circumstances in which South Korea was situated at the brink of the AFC in 1997. Next, I analyze the social consequences of the AFC, paying

particular attention to the increasing level of inequality and polarization during the post-crisis period. In the following section, the longitudinal panel data and analytic methods employed for this research are briefly discussed. Lastly, the summaries of three empirical studies included in this thesis are presented as an anchoring point for further discussion in later chapters.

The Miracle, the 1997 Crisis, and the Neoliberal Turn of South Korea

The Miracle

After the Korean War in the early 1950s, what had brought South Korea back to the international spotlight was its unprecedented level of economic development in the aftermath of the war. In 1961, South Korea was one of the 25 poorest countries in the world with $82 Gross Domestic Product (GDP) per capita (in 1961 prices), which was less than a half of Ghana's at the time (Chang 2008). In addition, most industrial bases after the 1945 Liberation from the Japanese colonial rule were either located in the North or mostly destroyed over the Korean War. Considering all the geopolitical and economic adversities that South Korea had to face in the early 1960s, therefore, it may have been more than apposite for United States policymakers to assess the country as a 'hopeless case' for any kind of development (Hart-Landsberg 1993).

The socioeconomic trajectory that South Korea painstakingly devised for the next four decades, however, could have not been more than opposite to the prediction. Averaging 8% of annual economic growth for about three successive decades until the

early 1990s, South Korea remarkably transformed itself from the hopeless case with tiny national income to one of the exemplars of the newly industrializing countries with approximately $11,000 GDP per capita in 1996. At the end of the same year, South Korea proudly knocked on the door of world's richest countries club, Organization for Economic Co-operation and Development (OECD), and became the 29th member of the organization, epitomizing its remarkable economic success in just one generation. Over the relatively short period of time, South Korea indeed narrated one of the most successful stories in the history of capitalistic development and became widely known as the 'East Asian Miracle' in general, and the 'Miracle of Han River'[7] in particular (World Bank 1993).

In the process of making the miracle from the early 1960s to early 1990s, however, South Korea, as a 'late developer' of modern capitalism, had to devise and apply a unique recipe for economic development distinctive from conventional Anglo-American models (Amsden 1989; Evans 1995; Lie 1998). At the beginning of the developmental stage in the aftermath of the Korean War, South Korea was completely devoid of any substantial capital or technology, thus any resources leftover for economic developmet had to be effectively mobilized and allocated under centralized plans. In addition, because economic growth in Korea had been primarily directed by the colonial state during the Japanese Colonial Rule (1910 – 1945), and economic activity was dominated by a few large Japanese firms, the Japanese-initiated process of industrialization did little to strengthen the power or position of Korean capitalists. Instead, Japanese colonialism left Korea with a strong centralized state apparatus and

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[7] The major river that runs through Seoul, the capital of South Korea

weak capitalist class (Hart-Landsberg 1993; Pirie 2008; Woo 1991). As a consequence, the state rather than private enterprise took the lead in organizing developmental plans under the decades-long military rule (1961-1987), and subsequent economic development was also predicated on this authoritarian dirigiste state reigning over all other societal sectors, such as business, finance, and labor (Gerschenkron 1962). Moreover, during the Cold War, due to the geopolitical significance of South Korea as a democratic capitalist bulwark against the communist bloc in East Asia, massive foreign aids, particularly from the U.S., also significantly contributed to the enhancement of the state as the major distributional channel of the financial goods (Cumings 1999).

Since it is the state that could monopolize the major financial flows under this configuration of development, the Korean state under the military dictatorship was not reluctant to exploit this 'positional good' with regard to nurturing, disciplining, and cajoling the business sector at its own will for economic development. Based on the tight control over the allocation of international borrowing and domestic savings, the so-called 'Korean developmental state' was not only able to solidify the nexus between the state, bank, and business for successive economic development, but also capable of carefully and actively directing industrial transformations according to the global changes (Evans 1995; Hart-Landsberg 1993; Lie 1998; Woo-Cumings 1999; Woo 1991). Along with high domestic savings rate and heavy government investment in education, the state-centered industrialization strategy effectively served to make South Korea an economic powerhouse at the end of the twentieth century, and the phenomenal economic growth and state policies rendered possible a unique combination of improvement in the standard

of living with relatively equitable income distributions for millions of Korean people.[8]

The 1997 Economic Crisis

In no less than a year after joining the OECD, however, the seemingly unstoppable developmental engine of South Korea came to an abrupt halt by the 1997 Asian Financial Crisis (AFC). Starting from the collapse of the Thai baht in July 1997, the AFC swiftly spread to the rest of East and Southeast Asian countries by the end of same year, and South Korea was also not able to escape from the contagious effect of the AFC. Even if then the managing director of the IMF commented that the financial conditions and fundamentals of South Korea were not as critical as other crisis-affected Southeast Asian countries, thus the confidence level about Korean market soon to be recovered, the formidable contagious effect of the 'financial flu' did not stop at the adjacent neighbors of the epicenter but reached to the Far East Asian countries, finally debilitating the financial market of South Korea in November 1997.[9] Considering the speed and magnitude of Asia's collective stumble between 1997 and 1998, it is no exaggeration to argue that the erosion of the wealth and the increases in poverty and social insecurity were the regional equivalent of the Great Depression in the 1930s (Asian Development Bank 1999a; Wade 1998a).

Debates over the causes of the financial crisis in general – and South Korea in

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[8] The social and human cost of the authoritarian state-centered economic development, of course, was as much enormous as the economic gains.

[9] Due to the sudden foreign capital flight at the beginning of the crisis, the Korean stock market lost more than 50% of its value along with the similar level of currency devaluation against the U.S. dollar by the end of 1997.

particular – have been as much diverse as the controversiality of the crisis itself (Hart-Landsberg and Burkett 2001; Pempel 1999; Wade and Veneroso 1998); but they can be classified into three broad categories: the group of experts who blame 1) the internal contradictions of the very Korean developmental model facing the new era of globalization, 2) the external volatility of the unfettered global financial capital, and 3) the untimely and unfortunate combination of both.

The first group of experts argues that the developmental state model that South Korea had effectively utilized until the 1997 crisis became out of date and unsustainable in the era of globalization. Since the state-centered dirigiste economy can neither be as efficient nor flexible as that managed by private business sectors in today's globalized free market, the outbreak of the 1997 crisis was nothing but the proof of the failure of South Korea's anachronistic reliance on the old model that needs an overhaul for future development. According to this view, the inefficient allocation of resources based on the secretive and corruptive relationship between the state, business, and bank was the major cause of the collapse during the AFC, sometimes denounced as 'crony capitalism' (Hughes 1999; Shin and Chang 2003). Due to the collusive relationship, the moral hazard among the business and financial sectors prevailed and the unsustainable level of debt that they had accrued up to the crisis finally hastened the bankruptcy of the 'Korea Inc.' (Wade 1998b).

On the contrary, the second group of scholars argues that even if the Korean developmental state model had its own problems of corruption and inefficiency due to the collusive state-bank-business relationship, South Korea could have passed the economic turmoil without such severity if the flow of international financial capital had been in

control of the government so that the massive amount of worldwide speculative and hedge funds were not able to take advantage of the 1997 crisis situation to capture huge profits (Winters 1999). In this perspective, the culprit of the financial crisis was not necessarily the Korean developmental model itself, which particularly had shown a decent and stable development record up to the crisis, but the volatility of the overly deregulated international financial market, in which the massive movement of profit-seeking financial capital is easily made within the seconds of mouse-clicks without much domestic and/or international regulations (Johnson 1998; Wade 1998a; Wade 1998c).[10] In this respect, the premature financial market opening of South Korea in the early 1990s in the expectation of the membership of the OECD only aggravated the vulnerability of the economy to the danger of the global financial capital (Chang, Park, and Yoo 1998).

Lastly, the third perspective attempts to make sense of both the internal and external circumstances of South Korea in the early 1990s when the increasing level of globalization and worldwide competition rendered the state-centered development strategy unsustainable and the accelerated international and domestic market liberalization unavoidable at the end of the twentieth century. According to this view, the cause of the crisis for the Korean case is defined as a 'transition failure' rather than the developmental-state failure, in which the harsh outcomes of the Asian Financial Crisis were the joint product of the external shock, internal weakness, policy mistakes, and the vulnerability of Korean economy in the 'confidence-attainment game' of the global financial system (Chang 2006; Sachs and Woo 2000; Shin and Chang 2003). Thus if the government and other sectors of society had carefully devised new developmental

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[10] This factor also contributed to the significant part of the 2008 global financial crisis.

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schemes before hastily discarding the 'old' state-centered development model, it is argued that the old model could still have some contemporary relevance, transforming itself into the one adaptable to the new era of globalization and market liberalization.

The Neoliberal Turn

With its foreign reserves rapidly running out in defense of currency devaluation and short-term loan repayment, South Korean government had to seek foreign assistance in order to avoid total economic collapse derived from the financial meltdown. On November 21, 1997, the government officially asked the International Monetary Fund (IMF) for bailout, and the bailout package of then the recode-high 57 billion-dollars was signed on December 3, 1997 after protracted negotiations between the Korean government and the IMF. In exchange for the financial arrangement, however, the government had to agree to follow a specific set of 'prescriptions' for economic recovery under the explicit IMF guidance during the contract term, which marked the *official* beginning of the new political economy of South Korea at the end of the twentieth century.[11]

Although it is not unusual for the IMF to demand debtor nations to follow a certain set of socioeconomic measures in the expectation of a fast economic recovery and solid loan repayment, what was peculiar to the Korean case was that not only were the regular *crisis-management emergency measures* for the assurance of the financial market and foreign investors but also fundamental *structural reforms* across the government,

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[11] See IMF (1997) for the details of the agreement.

business, and labor sectors required to implement as a condition of the loan. Moreover,

despite the multifaceted nature of the economic crisis as discussed in the previous section,

the IMF prescriptions and solutions to the crisis situation of South Korea were

exclusively centered on the first perspective because the IMF also believed that the

collapse of the Korean economy during the AFC was ultimately the failure of the Korean

developmental system improperly predicated on the collusive relationship between the

state, bank, and firms. In that vein, the IMF asserted that the overhaul of the existing

political economy as well as the crisis management emergency measures was essential

for South Korea if its economy was to recuperate from the crisis and to effectively

compete in the global market in the future. In particular, the IMF emphasized 1)

deregulation of the market from the governmental interventions, 2) privatization of public

enterprise, 3) anti-inflationary macroeconomic retrenchment with fiscal austerity, 4)

further liberalization on trade and financial market, and 5) broad structural reforms on

corporate, financial, and government sectors for free international competition (IMF

1997).

As can be seen in the list of the policy prescriptions, the goal of the IMF-initiated

reform program was to completely liberalize Korean economy for open global

competition with minimal governmental interventions, which also reflects the IMF's core

principle of neoliberal globalization. Neoliberalism[12], as a continuance and redefinition

of classical economic liberalism, is a set of ideology and accompanying political and

economic practices that believe in the fundamentality of self-regulating markets and the

'proactive' role of state as a guarantor of the uninterrupted market functioning with

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[12] A shorthand for 'neoclassical liberalism'

regard to advancing human well-being (Harvey 2005; Saad-Filho and Johnston 2005; Steger and Roy 2010). As opposed to the concept of welfare state and regulatory government, the proponents of neoliberalism promote packages of socioeconomic policies that secure a market-friendly environment for free movement of financial capital and profit, and no trade barriers between nations, ultimately believing in the idealized efficiency of self-regulating market for the distribution of goods and services. Unlike in the classical liberalism, however, the role of state and regulatory social institutions are critical in the implementation and expansion of neoliberalism to the extent that they are necessary to guarantee the idealized maximal functioning of free market within actually existing institutional limitations: In this theory of political economy, the state should be maximally proactive in a way that minimally interferes in the work of free market. Considering that the economic 'miracle' of South Korea was a creature of strong governmental interventions and regulations with 'artificial' market controls, therefore, the IMF neoliberal structural adjustment program was almost a complete overthrow of the entire developmental system that South Korea had effectively utilized for the three decades up until the crisis.

However, it is absolutely mistaken if the implementation of the neoliberal reform in South Korea in the wake of the 1997 Asian Financial Crisis is solely attributed to the influence of the external institution. Although it is true that the international financial institutions such as the IMF played a critical – and more visible – role in the implementation of the neoliberal structural adjustment taking advantage of the crisis situation, the coercive role of external political agents in the reform process should not be exaggerated. If we further examine the dynamics of the neoliberal reform at the deeper

level, it was actually the group of the reform-minded Korean elites in the state-capital complex who effectively seized the opportunity created by the crisis to advance their long-awaited plans and goals for more liberalized and globally integrated economy.[13] Otherwise, it is impossible to explain the fact that 1) market-based reform has consistently gone beyond what the IMF initially demanded and 2) there has been no attempt to undo previous reform following the repayment of the initial IMF loans (Pirie 2008). For a considerable period prior to the crisis, key sections of the Korean elite had been committed to wholesale neoliberal reform and important reforms were enacted prior to the crisis, and the crisis, in this sense, created the political space necessary for reformist elites to carry the project that they had initiated well over a decade earlier through its logical conclusion.

As a consequence, even if the rising voices of dissent within the economic profession questioned both the logic and the empirical validity of the proposition that an abstract, universalistic neoliberal recipe of policy reform could be an appropriate solution to re-ignite growth in the crisis-affected East Asian economy (Beeson and Islam 2005), the Kim Dae-Jung administration, which was newly elected shortly after the signing event of the bailout package in December 1997, carried out the details of the prescription with firm determination in subsequent years. As a decades-long dissident politician who had been incessantly tortured and repressed by the previous military regimes, President Kim Dae-Jung, once elected, tried his best to make a radical reform on the political, economic, and social of the passé (Cumings 1999). This effort to sever the relationship with the past resulted in the 'parallel transition to democracy and free market'(Kim and

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[13] The Korean elites had attempted to liberalize the Korean economy in a gradual manner since the early 1980s but had difficulties to actually implement the restructuring up to the crisis.

Shin 2004), and despite his leftist orientation, the implementation of neoliberal structural

reform ironically began in earnest during his presidency. In specific, systems of corporate

governance and financial regulation have been completely overhauled so as to bring them

into conformity with global standards of 'best practice' as defined by leading neoliberal

states and supranational institutions. At the same time, the extensive controls on foreign

investment that had existed prior to the crisis were dismantled and policy is now framed

so as to promote rather than prevent the sale of strategic assets to foreign investors.

Equally importantly, systems of labor regulation have been reformed so as to enhance

flexibility (the ability of firms to dismiss unwanted employees) and the new welfare

regime is being constructed so as to prioritize concerns about competitiveness as opposed

to equality.

In sum, as a result of the opportune combination of the external pressures and

internal politics taking advantage of the crisis situation, the 'neoliberal structural

adjustment program' predicated on the market fundamentalism was effectively introduced

by the IMF then enforced by the new administration as a joint venture, having

successfully transformed the Korean developmental state into the 'neoliberal state' at the

beginning of the new millennium.[14]

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[14] See World Bank (1997) for a working definition of the neoliberal state. This report argues that
governments with both centrally-planned and mixed economies are shrinking their market role because of
failed state interventions. Instead, the state's role in the institutional environment underlying the economy,
that is, its ability to enforce a rule of law to underpin transactions, is vital to making government contribute
more effectively to development. In this vein, the report argues against reducing government to a
minimalist state, explaining that development requires an effective state that plays a facilitator role in
encouraging and complementing the activities of private businesses and individuals.

Social Consequences of the Neoliberal Turn: Socioeconomic Polarization and Inequality with Neoliberal Characteristics

The initial outcomes of the IMF-prescribed crisis-management measures were more than disappointing: Half of the top thirty *chaebols*[15] went bankrupt in 1998 and a fifth of the existing financial institutions closed during the crisis, generating tremendous amount of unemployment and social unrest (Asian Development Bank 1999b; Emery 2001; Gray 2007; Pirie 2008). In hindsight, the failure of the IMF program was very much expected since the economic circumstances that beset South Korea at the time of the AFC was qualitatively different from the situation that the IMF tried to fix when they first designed the structural adjustment program: The fiscal austerity, high interest rates, and tax increase that the IMF recommended to South Korea as crisis management measures may have worked for Mexico and Argentina in which the root of the problem was the profligate state but not for South Korea where the profligate corporate was the root cause (Chang 1998; Wade 1998a).

Despite the initial failures of the IMF crisis management program in controlling the faltering economy of South Korea, the neoliberal structural reform agreed upon the 1997 Asian Financial Crisis has been successfully maintained with petty ups and downs by the successive administrations over the last decade or so (OECD 2000b; OECD 2007). Despite numerous objections and protests against the implementation of the neoliberal structural reform especially at the beginning, the Kim Dae-Jung administration (1998–2003) firmly implemented the neoliberal restructuring program and successfully altered the fundamentals of Korean society accordingly. Some measurable counteraction was put

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[15] *Chaebols* are the family-controlled large, diversified conglomerates that have played a key role in the industrial development of South Korea, particularly after 1960s

into effect under the subsequent Roh Moo-Hyun government (2003–2008), but the

current conservative Lee Myung-Bak administration (2008–2013) strives to regain the

currency of the neoliberal reform, declaring that the speed and magnitude of the

neoliberal restructuring is to be accelerated for upcoming years (e.g. privatization of the

public enterprise and tax cuts for the rich). As a consequence of the decade-long

neoliberal reform, South Korea has indeed become a liberalized economy by any

international standards and fully integrated into the global economy in such a short period

of time (See Table 1 for some indicators of market openness of South Korea between

1990 and 2008).

(Table 1 about here – Indicators of Market Openness)

Given that South Korea is now a clearly neoliberal state with a neo-liberal mode

of governance, what are the social consequences of the decade-long transformation for

individuals living today? Since South Korea is not the first country that has undergone

the neoliberal reform, it would be instrumental for the study of South Korea to examine

other countries in which the ideas of neoliberalism were first introduced and implemented,

such as the U.S. and the U.K. In the 1970s, the U.S. and the U.K. were suffering from

'stagflation' (economic stagnation, high unemployment, and inflation) triggered by the oil

crises after the decades-long postwar boom. As a remedy to the chronic problems of the

stagnant economy and heavily indebted governments, both countries discarded the

Keynesian stimulus policies, which they had effectively maintained during the postwar

period, but opted for the neoliberal measures to boost the ailing economies. The results of

the implementation of the new political economy, however, have been mixed at best: The

economy has regained vibrancy to a certain extent but not without substantial

socioeconomic costs.

One of the most visible social consequences of the neoliberal transition has been

a massive increase in socioeconomic inequality and polarization across social groups

(Blyth 2002; Duménil and Lévy 2004b; Levy and Temin 2007; Piketty and Saez 2003;

Prasad 2006; Wolff 2002). Since the 1980s, the level of inequality and concentration of

income and wealth in these countries have dramatically increased and reached the highest

level in the world. Under the guise of market efficiency and global competition, the gap

between the rich and the poor has widened, income and wealth have been concentrated in

the hands of few, and the job security of workers has become more unstable. As befits its

name, the practice of neoliberal ideologies and policies has indeed created 'new liberal'

socioeconomic environment in which only the 'fittest' can survive and enjoy the fruit of

the neoliberal global expansion (Chomsky 1999; Harvey 2005).

Not surprisingly, South Korea in the wake of the AFC was no exception to the

'rule' of the neoliberal reform procedure observed elsewhere: The neoliberal measures

were introduced as a remedy to the ailing economy in the 1990s, the economy

recuperated from the recession to some extents, but it also had to pay the social cost of

increasing inequality and polarization. To be more specific, overall macroeconomic

indicators, such as annual economic growth rate and household consumption level, began

to recover as early as late 1998 and continuously improved until the recent global

financial crisis in 2008, the level of inequality, which was effectively maintained low

during the high economic growth period up to the AFC, substantially rose over the last

decade, reaching the unprecedented level (See Table 2 for some principle economic

indicators and Figure 1 for the trends in Gini coefficients[16] and the quintile share ratios[17]).

(Table 2 about here – Principle Economic Indicators)

(Figure 1 about here – Gini Coefficients and Quintile Share Ratios)

Moreover, the disproportionate impact of the economic crisis and subsequent

market liberalization measures were particularly visible at the bottom of the

socioeconomic strata. In 1998 when South Korea suffered most from the direct impact of

the AFC, for example, the real income of the poorest 20 percent of Koreans fell by almost

a quarter while that of the wealthiest 10 percent of Koreans only declined by 2.5 percent

(You and Lee 2000).[18] As also seen in the trends of poverty rates in Figure 2 where the

relative poverty rate[19] has reached the highest among the OECD member nations while

the absolute poverty rate[20] falls back to the pre-crisis level, it is those people at the

bottom of the income strata who did not catch up with the rest of population. With the

dissipating government support and institutional regulations in favor of free market

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[16] Gini coefficient is the most widely used statistical measure of inequality of income or wealth distribution developed by the Italian statistician Corrado Gini. The coefficient varies between 0, which reflects complete equality (everyone holds the same income or wealth), and 1, which indicates complete inequality (one person has all the income or wealth, all others have none).

[17] Quintile share ratio represents the ratio of the average income of the richest 20 percent of the population divided by the average income of the bottom 20 percent.

[18] The overall GDP of South Korea contracted by 6.9 percent in 1998 compared to the previous year.

[19] Relative poverty rate measures the proportion of the population whose accumulated income is less than 50% of the median income of the population.

[20] Absolute poverty rate quantifies the proportion of the population whose accumulated income is below the poverty threshold defined by the minimum cost of living in current South Korea.

operation, it is not surprising that the rising tide of the economic comeback did not lift all boats but the select few.

(Figure 2 about here – Absolute and Relative Poverty Rates)

Acknowledging that this trend of increasing inequality and polarization is considered 'normal' under the neoliberal restructuring, including South Korea, the rest of chapters in this study are devoted to investigate the role that primary socio-demographic factors (e.g. education, family wealth, and marital status) have played in the mediation and moderation of the diverging socioeconomic parameters and personal well-being measures (e.g. income, consumption, and level of life satisfaction). Before I introduce the three empirical chapters dealing with each aspect of the personal well-being, however, brief descriptions on the dataset and statistical methods employed for this study follow first.

Data and Methodology

Data

Korean Labor and Income Panel Study (KLIPS) is the most comprehensive longitudinal survey that contains various information on the Korean labor market and related socioeconomic activities of households and individuals residing in the urban areas of South Korea (Korea Labor Institute 2009). Benchmarking the success of other

nationally representative panel surveys, such as Panel Study of Income Dynamics in the

U.S., the Korea Labor Institute (KLI) launched its first wave of KLIPS in year 1998 with

a sample of 5000 households and their 13,321 household members who are 15 years or

above and has continued to track the initial samples and branched households on an

annual basis.[21] The original sample of the households was selected by a two-stage

stratified cluster sampling (random choice of urban households within the Korean Census

enumeration districts), and the data are principally collected by a direct face-to-face

interview comprised of separate questionnaires for the household and its all individual

members aged 15 and above. As of 2011, fourteenth wave of data collection is being

conducted, and the household and individual datasets from wave 1 through 11 are readily

available on the Korea Labor Institute website for public use.[22]

The major topics of the KLIPS cover both household characteristics (e.g.

household composition, housing information, and financial condition) and individual

socioeconomic activities particularly related to labor market (e.g. employment, education,

income, job training, working conditions and welfare, etc.) with occasional supplemental

surveys for specific demographic groups. Since the primary goal of this study is 1) to

evaluate the patterns of socioeconomic polarization under the neoliberal restructuring

after the 1997 AFC and 2) to investigate the role of crucial socio-demographic factors on

various measures of personal well-being in the course of the divergence, the KLIPS, with

its comprehensive and refined measures on various socioeconomic activities, fits best to

this end, providing a sound longitudinal empirical foundation for this study.

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[21] The original household retention rate is 75.5% by wave 10, which is comparable to other highly regarded national panel studies such as the U.S. PSID, the British BHPS, and the German GSOEP.

[22] Visit http://www.kli.re.kr/kli_ehome/main/main.jsp for the details.

Unlike the dataset, various statistical methods are to be utilized to address different topics of each substantive chapter as well as to fully capitalize on the panel structure of the KLIPS. In the next chapter that deals with the association between education and earnings inequality, the *Theil Index* decomposition (Theil 1967) is used to analyze the rising earnings inequality in post-crisis South Korea by education. In the following chapter that examines the potential buffer effect of family wealth on household consumption over economic crisis, the *Multilevel Model for Change* (Singer and Willett 2003) is adapted to empirically test the dynamics between family wealth and consumption in the period of economic crisis and recovery. In the last substantive chapter that investigates the relationship between marital status and life satisfaction under economic hardships, not only the Multilevel Model for Change is utilized again to model the individual trajectories of the level of life satisfaction in post-crisis South Korea by marital status, but the *Multiple Linear Regression Model* (Fox 2008) and the *Cumulative Logit Model for Ordered Outcomes* (Powers and Xie 2000) are also used to test empirical association between the two variables particularly at the time of the economic crisis.

First Essay on "Rising Earnings Inequality and the Role of Education"

Among the various aspects of personal well-being, this first essay deals with one of the most fundamental dimensions of social stratification and inequality in the contemporary capitalist economy: I.e., *education* and *earnings inequality*. Numerous

studies have attested a strong positive association between the level of education and economic returns (e.g. earnings). The robust relationship between education and earnings and the persistent earnings inequality across different education groups, however, have less been tested to date against institutional or temporal variability. Drawing on the decadal experience of South Korea after the 1997 Asian Financial Crisis, this study examines the role of education on rising earnings inequality under a radically changing institutional environment. In particular, based on the decomposition of the total earnings inequality into between- and within-education-group inequalities over the period, two competing explanations on the role of education on rising inequality (i.e. market-based vs. institution-based explanation) are tested against the context of post-crisis South Korea. On the basis of the findings from the Korean Labor Income Panel Study and the Theil index decomposition, I conclude that despite the robust association between the level of education and the rising earnings inequality in post-crisis South Korea, the substantial amount of the change in the overall inequality is primarily attributable to the rapid increase in the *within-group* inequality, which demands institution-based explanations to fully account for the changing dynamics of earnings inequality.

Second Essay on the "Buffer Effect of Family Wealth over Economic Crisis"

If one's earnings comprises the starting point of the material well-being chain in the capitalist society, at the end of the chain lies the level of consumption. As another critical measure of personal well-being and a broader concept of one's living standards than earnings, the level of *household consumption* and its trajectories after the AFC are

empirically examined in this essay. In so doing, I pay particular attention to the role of *family wealth* in determination of the level and pattern of household consumption in the post-crisis South Korea, aiming to evaluate the impact of family wealth on household consumption behavior in the course of economic crisis and recovery. In particular, hypothesizing that the possession of liquid financial wealth would mitigate the adverse impact of economic crisis on the level of household consumption, I investigate the differential impacts of household assets on the trajectories of household consumption over economic crisis in comparison to the ensuing period of stable economic growth. Drawing on the decadal experience of South Korea after the 1997 Asian Financial Crisis and the Korean Labor and Income Panel Study, I not only evaluate and confirm the buffer effect of family wealth as "consumption potential" realized at the time when it is indeed in need but also further the discussion over the implications of wealth ownership for socio-behavioral outcomes of individuals and households.

Third Essay on "Marital Status and Life Satisfaction under Economic Hardships"

Lastly, in addition to the two material aspects of personal well-being studied in the previous essays (i.e. earnings and consumption), this last essay concerns a subjective dimension of personal well-being, such as one's level of life satisfaction, in post-crisis South Korea. In particular, I examine the *reported level of life satisfaction* in reference to one's *marital status* to test if the "marriage premium" in subjective well-being still holds for the married even during the economically challenging times. Numerous studies have attested various benefits of marriage on individual's physical and emotional well-being:

Married people not only tend to live longer than the non-married but they also stay physically and emotionally healthier throughout their lifetime. However, does the marriage premium remain unchallenged during the period of severe economic hardships? In particular, would married people still report higher level of life satisfaction than the non-married even under severe economic hardships such as economic crisis? In addition, when most people report a higher level of life satisfaction as the economy recovers from crisis, do the responses of the married show a different pattern than the rest of people? In order to empirically test these two hypotheses regarding marital status and the level of life satisfaction under economic hardships, I draw on the experience of South Korea between 1998 and 2001 when South Korea suffered most from the 1997 Asian Financial Crisis. Based on the Korean Labor and Income Panel Study and three different sets of regression analyses, I not only confirm that the marriage premium on life satisfaction is still valid even at the time of economic crisis but also show that the trajectories of life satisfaction in the course of economic recovery differ by marital status.

Chapter 2

Rising Earnings Inequality and the Role of Education

The role of education on one's welfare is more than crucial in contemporary society: Not only does it facilitate to secure one's higher socioeconomic status within a stratification system, but it also enhances various social and biological functionalities of individuals throughout their lifetime. In particular, the effect of educational attainment on one's earnings potential is well documented both in sociology and economics, and numerous studies have attested the existence of the strong positive correlation between the level of education and its economic returns (e.g. earnings), net of potential confounding factors such as individual's talent and family background.

The robust relationship between education and earnings and the persistent earnings inequality across education groups, however, have less been tested to date against temporal and contextual variability. For instance, is the earnings gap and inequality across different educational categories stable over time? If it varies, under what circumstances does the gap converge or diverge? Does the pattern of convergence/divergence interact with existing structural or institutional arrangements? Moreover, what is the relationship between the level of education and rising inequality? Although it sounds reasonable to directly associate rising earnings inequality with education, the extent to which one's level of education contributes to rising inequality

over time is less obvious than it seems, let alone its implications for the study of inequality and stratification.

In order to address these issues on empirical grounds, this study investigates the potential variability of the earnings inequality by education under radically changing institutional settings. In particular, based on the hypotheses that 1) the relationship between education and earnings inequality is not constant over time and 2) the changing relationship interacts with external institutional factors, I examine the role of education on *rising* earnings inequality, drawing on the decadal experience of South Korea after the 1997 Asian Financial Crisis. South Korea, once known for its rapid economic development with relatively equal income distribution, has experienced an unprecedented level of rise in income inequality since the mid-1990s, particularly after the 1997 crisis. Although there exist many factors that contributed to the rising inequality of post-crisis South Korea, I focus on its association with education, analyzing the proportion of the increase in the overall inequality due to the changing inequalities between education groups. Furthermore, based on the result of this exploratory analysis, I also discuss two competing hypotheses on the role of education on rising inequality (i.e. market-based vs. institution-based accounts) in search of the explanations for the changing contours of the rising earnings inequality in post-crisis South Korea.

In testing the empirical foundations of the hypotheses, data extracted from the Korean Labor and Income Panel Study and various national statistics have been utilized along with the Theil index decomposition. Theil index decomposition is a particularly useful statistical tool in this regard not only because it is a widely used measure of distributive inequality but it also possesses all the desirable properties for a measure of

earnings inequality, including additive decomposability (i.e. decomposition of the overall inequality into between- and within-group inequalities). Since the primary goal of this study is to document the rising inequality of post-crisis South Korea as well as to account for the increase in the overall earnings inequality in terms of education, the Theil index and its decomposed values for between- and within-education group inequalities are more than crucial to test the hypotheses for this study.

In the following sections, the details of the theories, hypotheses, and analysis of this study are presented. First, two competing explanations over the role of education on rising inequality are discussed in order to set up the hypotheses. Second, the backdrop of this study – South Korea after the 1997 Asian Financial Crisis – is briefly introduced as a context of the study. In the analysis section, data, measures, and the Theil index are explained in detail followed by results. Lastly, based on these empirical analyses, I seek the implications of the rising earnings inequality and the role of education for the study of inequality and stratification in the concluding section.

Rising Inequality and the Role of Education: Theories and Hypotheses

The significance of education on one's general welfare is almost universal, affecting individual's various socioeconomic parameters throughout his or her life course (e.g. occupation, income, and civil engagement). Of the multiple socioeconomic functionalities of education, one of the most salient features in the current capitalistic system is *its strong positive association with earnings*: In general, the higher one's educational attainment, the higher one's earnings potential, net of individual talent or

family background (Angrist and Kreuger 1991; Becker 1993; Blundell, Dearden, Goodman, and Reed 2000; Card 1999; Tsai and Xie 2008). Although theories on what render education particularly valuable and pecuniary in the contemporary society vary across perspectives (e.g. human capital, credentialism, screening hypothesis, and cultural capital), there is no objection to the existence of earnings inequality by education, which is regarded as more than a proxy of one's innate talent or economic potential in the current socioeconomic system.

What is less known, however, is the *variability of the association* over time and space: Does the differential earnings returns to education – thus the earnings inequality by education – remain constant regardless of temporal or contextual changes? In other words, how does the association between the two variables *interact* with external circumstances such as economic crisis and institutional reforms? Even if the association between education and earning inequality has been proven robust in the existing literature, this does not necessarily imply invariability over time and space, demanding a relevant but separate set of questions to be addressed specifically for this issue. Moreover, since it is well known that the association is not only defined by market forces (e.g. demand and supply) but also by institutional factors (e.g. minimum wage, unionization, and governmental policies), to investigate how earnings inequality by education is shaped and structured by power and inequality that originate outside the marketplace is also essential to further the sociological understanding of the dynamics (Morris and Western 1999).

Of potentially many patterns of the changing association between education and earnings inequality over time and space, I pay particular attention to the role of education on *rising* earnings inequality – i.e. the amount of contribution that one's level of

education makes to the increase in the overall earnings inequality over time. This is because, although it is feasible that educational attainment can be associated with decreasing earnings inequality under particular temporal or contextual settings, what has been more commonly observed in the recent decades across the globe is *rising* earnings inequality within a country (Firebaugh 2003), and the increase in the overall inequality is often attributed to diverging earnings returns to education. Considering the robust association between education and earnings inequality in the existing literature, this claim on the role of education on rising earnings inequality sounds reasonable enough, but since the extent to which how much of the statement is empirically valid is less known than it claims, I aim to examine the association in a specific temporal and spatial context to critically evaluate the statement.

Before stating specific hypotheses for this study, I first explore two major theoretical accounts on the rising earnings inequality (i.e. market-based vs. institution-based explanation), both of which implicitly or explicitly discuss the role of education in the process. First, the former argues that the primary cause of the observed rising earnings inequality is the combined consequence of 1) the rising demand for highly educated workers due to technological changes and 2) downward wage pressure for low-skilled and less-educated workers from globalization (Card and DiNardo 2002; Katz and Autor 1999). On the one hand, constant changes and upgrades in modern technologies require workforce to be equipped with comparable skills and education, and this trend of the 'skill-biased technical changes (SBTC)' in the contemporary capitalism naturally incur higher demand and wage for highly skilled workers, widening earnings inequalities in favor of the highly educated. On the other hand, the increasing force of globalization –

notably by free trade and immigration – put extra competitive pressure on low-skilled workers, resulting in deteriorating wage conditions for the less educated. As a result, the earnings gaps and inequalities between education groups increase over time, and, as long as the SBTC and globalization work in favor of the highly educated workers, the rising earnings inequality by education is supposed to continue as a natural consequence of the logic of the market mechanism.

On the contrary, the institution-based stance argues that it is not the indifferent market forces of technological changes or globalization but various institutional changes (e.g. labor unions, social norms, and political power) that cause the rising earnings inequality (DiPrete 2007; Levy and Temin 2007; Piketty and Saez 2003; Pontusson, Rueda, and Way 2002). Although this alternative perspective acknowledges the positive and significant association between education and earnings inequality, but it differentiates it from the role of education on *rising* earnings inequality: Regardless of the static association between education and earnings, the variability of the association over time and space is primarily defined by changes in institutional factors. The rationale behind this alternative perspective is as follows: The recent trend in rising earnings inequality is not caused by the SBTC or globalization but by changes in institutions and social forces that allow those in power to effectively take more of the economic shares than before. If the rising earnings inequality is indeed the result of the SBTC and globalization, why don't we observe the same pattern of the growing inequality across countries that are equally affected by the same market forces (DiPrete 2007)? In addition, to a certain extent, the impact of SBTC and globalization has always been present throughout the history of human development; but why has the association between education and

earnings inequality been variable despite the constant effect of technological innovations and globalization? Moreover, if the rising inequality is primarily due to the college premium – as the marketists argue – why do we observe more of the growing earnings inequality *within* the college-educated group than between education groups? Since it is not possible to explain a variable (i.e. differential rising earnings inequality by education across countries) with a constant (i.e. the force of SBTC and globalization), the institutionalists argue that the market-based explanation is not enough to explain the dynamics of rising earnings inequality, searching for alternative explanations based on institutional factors such as the rise and fall of the organized labor (Western and Rosenfeld 2011). In sum, from the institutional view point, the role of education on the *rising* earnings inequality is not as clear as the market-based explanations, and despite the robust relationship between education and earnings inequality, the issue demands a separate set of empirical investigations that allows its potential interaction with existing institutional frameworks.

In an attempt to test these two competing explanations on the role of education on the rising earnings inequality, therefore, I test the following hypotheses in this study:

Hypothesis 1: The association between education and earnings inequality is not constant over time and space, and the direction of the association is open to empirical investigation.

Hypothesis 2: In this study, the role of education on *rising* earnings inequality is to be empirically tested. To be specific, if the rising earnings inequality is due

to the college premium driven by the SBTC and globalization, we
expect to see widening earnings inequality between education groups
when we decompose the increase in the overall earning inequality into
the between-group-education and within-group-education inequalities.
If the rising earnings inequality is due to other factors than rising
college premium, however, we expect to see the reverse trend, i.e. the
increase in the overall earning inequality primarily driven by the rising
within-education-group inequality.

Although the empirical evidences and tests to these hypotheses are exploratory at best,
not giving definitive answers to judge between the market-based and the institution-based
arguments, they would definitely provide another firm empirical ground on which the
study of the role of education on rising earnings inequality is further to be investigated.

Before discussing the details of the data and analytic methods utilized for this
study, I briefly introduce the temporal and spatial context of this study in the following
section – i.e. the decadal experience of South Korea after the 1997 Asian Financial Crisis.
During the period, South Korea not only experienced a rapid increase in income
inequality to the unprecedented level but also underwent substantial institutional reforms
in the wake of the 1997 economic crisis. Although the coincidence was not exceptional
for South Korea compared to other industrial countries that also underwent the similar
socioeconomic restructuring procedure with the rising income inequality since the 1980s,
South Korea would provide a unique venue to test the suggested hypotheses given its
unique history of development and inequality.

The Backdrop of Study: South Korea After the 1997 Asian Financial Crisis

South Korea, once known for its rapid economic growth with relatively equal income distribution, started to experience a rapid increase in income inequality since the early 1990s, particularly after the 1997 Asian Financial Crisis (See Figure 1).

(Figure 1 about here – Gini Coefficients and Quintile Share Ratios)

As opposed to the prediction of the Kuznets curve[23], the level of inequality in South Korea substantially *decreased* during the period of the rapid industrialization and economic development (1960s – 1980s) and started to *rise* as the economy moves toward a post-industrialization era with a globalization drive since the early 1990s. This trend of rising inequality has particularly accelerated after the 1997 crisis, and as can be seen in the trend of the quintile share ratios in the figure, it has been primarily led by the substantial gains of the top income group.

Then who are the top income group that disproportionately gained from the post-crisis economic recovery in the midst of the rapidly rising income inequality? Are they the highly educated workers who the marketists predict to enjoy the college premium driven by the SBTC and globalization since 1990s or those who were able to take advantage of the post-crisis institutional reforms, which has less to do with the level of education? Moreover, why did the trend suddenly accelerate after the 1997 crisis? In order to answer these questions and the hypotheses stated in the previous section, the

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[23] Simon Kuznet (1955) speculated that industrialization has a nonlinear effect on income inequality, with inequality increasing as nations begin to industrialize and then declining at later stages of industrialization.

questions first need to be situated in the proper context – South Korea in the wake of the Asian Financial Crisis.

The 1997 Asian Financial Crisis (AFC) – which started from Thailand in the summer of 1997, then swiftly spread to the rest of East Asian countries by the end of the same year – significantly debilitated most East and South East Asian economies at the time.[24] Although the crisis was relatively short-lived, followed by a steady economic recovery across the region, the speed and magnitude of the Asia's collective stumble, the erosion of the wealth, and the increases in poverty and social insecurity during the crisis were massive enough to be referred to as the regional equivalent of the Great Depression in the 1930s (Wade 1998a).

South Korea, once praised as the exemplar of the developmental state (Woo-Cumings 1999) up to the crisis, was among the hardest hit by the financial crisis, suffering the worst economic recession since the Korean War in the early 1950s. Facing massive capital flight with its own foreign reserves rapidly running out, Korean banks and *chaebols*[25] were unable to pay back international loans in time, and in the end, the government had to ask the International Monetary Fund (IMF) for emergency bailouts so as not to confront the worst scenario of national bankruptcy.

In exchange for then the record-high 57 billon-dollar loans from the IMF and other International Financial Institutions (IFIs), however, the government had to accept and implement so-called IMF's 'structural adjustment program' based on neoliberal economic policies of deregulation, privatization, and liberalization (See IMF (1997) for

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[24] Thailand, Malaysia, Indonesia, and South Korea were particularly hit hard by the crisis.

[25] *Chaebols* are the family-controlled large, diversified conglomerates that have played a key role in the industrial development of South Korea, particularly after 1960s.

the details of the agreement).[26] Although the general attempts to liberalize Korean market had been gradually implemented since the early 1980s when the economy of South Korea was still under the influence of the dirigiste state (Pirie 2008; Woo 1991),[27] the wholesale implementation of the neoliberal economic restructuring program in the midst of the deep recession was critical and abrupt enough to substantially transform the constitution of Korean society within the short period of time. Given that the economic 'miracle' of South Korea during the pre-crisis era was a creature of strong governmental interventions and market controls (Amsden 1989; Evans 1995; World Bank 1993), the list of the recommendations jointly decided by the government and the IMF upon the crisis was almost the abandonment of the developmental system that South Korea had effectively utilized for the three decades or so up until the crisis (Shin and Chang 2003).

While the Korean economy began to recover as early as 1999, the crisis and the subsequent economic restructuring premised on the new ideology left an indelible mark on the Korean political economy, substantially transforming the Korean "developmental state" into the neoliberal state (Gray 2007; Pirie 2008; Woo 2007a; Woo 2007b).[28]

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[26] The structural adjustment program recommended by the IMF at the time consisted of two sets of policy measures; first, as an immediate measure to recover 'investor's confidence' right after the crisis, the program called on crisis-struck nations to cut back on government spending to reduce deficits, allow insolvent banks and financial institutions to fail, and aggressively raise interest rates based on the reasoning that these steps would restore confidence in the nations' fiscal solvency, penalize insolvent companies, and protect currency values. Secondly, as a measure for long-term economic restructuring aligned with the logic of neoliberalism, the borrowing nations were suggested to follow a set of socioeconomic policies that emphasize more of the role of free-market mechanisms vis-à-vis the state intervention in the distribution of goods and services.

[27] The drive to the liberal economy was actually initiated from the mid-1990s under the phrase of *Seigyehwa* (i.e. globalization), but actual implementation of specific policies started after the 1997 Asian Financial Crisis in earnest as a way to overcome the cirisis.

[28] The neoliberal state is the mode of governance in which free-market mechanisms are more encouraged for the distribution of goods and services as opposed to the Keynesian welfare state that was prominent in the Golden Age of capitalism roughly between 1945 and 1973 in the global economy.

Among the many changes derived from the transformation, the most arresting to the general public has been a significant increase in *inequality, insecurity, and poverty* in spite of the steady economic comeback after the crisis, emerging as the salient social problems of post-crisis South Korea (Lim and Jang 2006; Shin 2011). In particular, although overall macroeconomic indicators, such as annual economic growth rates and household consumption level, began to recuperate as early as late 1998 and continuously improved until the recent global financial crisis in 2008, the distributional inequality measures, such as the Gini coefficient[29] and quintile share ratio[30], have become the worst in the recent history of Korean economic development (See Table 2 for some principle economic indicators and refer back to Figure 1 for the trends in the Gini coefficient and the quintile share ratio since the early 1990s). With its conventional developmental strategies of strong state interventions and coordination of the market gradually removed from most policy domains, South Korea has become more liberal economy extensively integrated into the global market, in which individual competition and merit-based reward systems have been strengthened ever.

(Table 2 about here – Principle Economic Indicators of South Korea)

Now back to the original questions and hypotheses stated earlier: Given the substantial rise in income inequality in post-crisis South Korea and the disproportionate

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[29] GINI coefficient is the most widely used statistical measure of inequality of income or wealth distribution developed by the Italian statistician Corrado Gini. The coefficient varies between 0, which reflects complete equality (everyone holds the same income or wealth), and 1, which indicates complete inequality (one person has all the income or wealth, all others have none).

[30] Quintile share ratio represents the ratio of the average income of the richest 20 percent of the population divided by the average income of the bottom 20 percent, expressing the income of the rich as multiples of that of the poor.

gains of the income by different income groups, what are the primary mechanisms that

have driven this trend? Is it the diverging earnings returns to education caused by the

SBTC and globalization or the result of the post-crisis institutional restructuring that

South Korea implemented as a response to the crisis? Before attempting to answer these

substantial questions, let us first look at the trends of earnings by one's level of education

in South Korea at the descriptive level:

(Figure 3 here – Earnings Trends by Education (KOSIS[31]))

(Figure 4 here – Earnings Trends by Education (KLIPS[32]))

Although it is not possible to separate the independent effect of one claim from the other

since only one time-series dataset of one country is dealt with in this study, an informed

judgment between the two competing accounts can be made based on the analysis of the

trends by education as stated in the hypotheses. In the following section, the details of the

dataset, variables, and analytic methods used to empirically test the hypotheses are

introduced.

Decomposition of Earnings Inequality by Education in Post-Crisis South Korea (1997-2006)

Data and Analytic Sample

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[31] Korean Statistical Information Service (http://kosis.kr/eng/)

[32] Korean Labor and Income Panel Study (http://www.kli.re.kr/klips/en/about/introduce.jsp)

Korean Labor and Income Panel Study (KLIPS) is the most comprehensive

longitudinal survey that contains various information on the Korean labor market and

related socioeconomic activities of households and individuals residing in the urban areas

of South Korea (Korea Labor Institute 2009). Benchmarking the success of other

nationally representative panel surveys, such as the Panel Study of Income Dynamics in

the U.S., the Korea Labor Institute (KLI) launched its first wave of KLIPS in year 1998

with a sample of 5000 households and their 13,321 household members, who are 15 years

or above, and has continuously tracked the initial samples and branched households on an

annual basis.[33] The original sample of the households was selected by a two-stage

stratified cluster sampling (random choice of urban households within the Korean Census

enumeration districts), and the data are principally collected by a direct face-to-face

interview comprised of separate questionnaires for the household and its all individual

members aged 15 and above. As of 2011, the fourteenth wave of data collection is being

conducted, and the household and individual datasets from wave 1 through 11 are readily

available on the Korea Labor Institute website for public use.[34]

The major topics of the KLIPS cover both household characteristics (e.g.

household composition, housing information, and financial condition) and individual

socioeconomic activities particularly related to labor market (e.g. employment, education,

income, job training, working conditions and welfare, etc.) with occasional supplemental

surveys for specific demographic groups. Since the primary goal of this study is analyze

earnings inequality by education, the analytic sample for this study is limited to wage

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[33] The original household retention rate is 75.5% by wave 10, which is comparable to other highly regarded national panel studies such as the U.S. PSID, the British BHPS, and the German GSOEP.

[34] Visit http://www.kli.re.kr/kli_ehome/main/main.jsp for the details.

earners aged 26 and above, resulting in 6020 individuals with 29,155 person-year

observations between 1997 and 2006.

Measures

The dependent variable of this study is *individual's average monthly wages* in

Korean Won (₩), and the primary independent variable is the *respondent's level of*

education categorized into three different groups – 1) equal or less than high school, 2) 2-

3 year junior college, and 3) four-year university and above, reflecting clear divisions

between the categories in the Korean education system.[35] The descriptive statistics of

these variables for the decade (1997 – 2006) are summarized in Table 3 below.

(Table 3 about here – Descriptive Statistics of the Variables)

Analytic Method: The Theil Index Decomposition as a Measure of Inequality

Inequality indicates the absence of equality in which a certain item of interest is

not equally distributed across individual units. Various indexes of inequality have been

suggested to measure the degree of inequality (e.g. the Gini index, variance-based

measures, and the Generalized Entropy measures), and each index captures different

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[35] As of 2008, over 99% middle-middle school graduates advance to high schools and over 80% of high-school graduates to some types of colleges in South Korea, thus the qualitative distinction between the three categories is much more crucial than the quantitative difference within each group when it comes to its effect on various socioeconomic outcomes.

aspects of the distributional inequality with its own advantages and disadvantages. Of the popular measures widely used in practice, I utilize the Theil index this study, not only because the Theil index is best suited to address the research questions posed earlier, but it also possess more 'desirable' properties as an index of inequality compared to other popular measures. Before the details of the Theil index is further discussed, I briefly explain 1) what all of the inequality indexes are generally trying to measure in common and 2) the list of desirable properties for inequality measures.

1) Income Inequality as the Average Disproportionality

In general, the standard measures of inequality, such as the Gini index and the Theil index, contain the same theoretical concept behind the different metrics – i.e. inequality as an *average disproportionality* (Firebaugh 1999; Firebaugh 2003; Reardon and Firebaugh 2002). According to this conceptualization, inequality occurs when units of interest (e.g. individuals or households) possess disproportionate shares of the item of interest (e.g. income or consumption) in comparison to the mean of the entire unit values.[36] For instance, when individual income is defined X and the arithmetic mean of all the individual incomes $\overline{X}$, the *ratio* of the individual income to the mean income $(X/\overline{X})$ represents the degree of individual deviation from the mean. Unless all the individuals share the same level of income, the individual ratios vary around the ratio of equality, which is 1.0, and the average distance of the individual deviations from the mean represents the degree of inequality. Based on this principle of average proportionality, the

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[36] Thus it is uneven income growth – non income growth per se – that leads to growing income inequality: Because income growth per se results in bigger gaps but not greater inequality, it is a logical fallacy to infer growing income inequality from growing income gaps.

standard inequality measures aggregate all individual unit deviations into a single summary value with its own distinctive metrics depending on the definition of the individual unit ratio function.

2) Four Desirable Properties for a Measure of Income Inequality

Despite the conceptual similarities among the standard measures of inequality, not all of them equally possess the desirable properties as an index of inequality. In general, an ideal inequality index is supposed to be 1) invariant to unit/scale changes of the unit values ("scale invariance"), 2) responsive to transfers between individual units at all points of the distribution ("principle of transfers"), and 3) consistent with the principle that income transfers among the poor are more consequential than income transfers among the rich ("the welfare principle"). In addition, as in this study, most social studies are interested in the decomposition of overall income inequality by socio-demographic groups, thus it would also be useful if the inequality measure can be 4) additively decomposed into between- and within-group inequalities ("additive decomposability"). Since the Theil index satisfies all these four criteria – and these conditions are essential to testing the primary hypotheses of this study, I focus on the Theil index here, analyzing the inequality trend of post-crisis South Korea as well as its decomposed components by the three education categories.

3) The Theil Index and Its Decomposition by Education Categories

Along with the Gini index and the variance of logged incomes, the Theil index (Theil 1967) is a single summary measure of distributional inequality widely used in the study of income inequality (Allison 1978). As with other standard measures, the Theil index represents the degree of income inequality in terms of the average disproportionality computed from individual income ratios, but unlike other inequality measures, it possesses all the four desirable properties for an inequality measure discussed in the previous section, including the additive decomposability. In particular, the Theil index, T, is defined as the arithmetic mean of the individual income ratios weighted by its logged value:

$$T = \frac{1}{N} \sum_{i=1}^{N} \left(\frac{x_i}{\bar{x}}\right) \ln\left(\frac{x_i}{\bar{x}}\right),$$ (1)

where x_i denotes individual income, $\bar{x}$ the mean income, and $ln\left(\frac{x_i}{\bar{x}}\right)$ the natural logarithm of the individual income ratio. According to this definition, the minimum value of the Theil index is 0, in which everyone in the population has the same level of income, and the maximum value lnN with one individual possessing the entire income in the population.[37]

As can be seen in the technical details of equation (1), the Theil index satisfies the four basic criteria for a desirable inequality index explained in the previous section: Not only the index value remains the same with the proportional income changes across individuals in the population ("scale invariance"), but it also changes if income transfers

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[37] If everyone's earnings is the same in the population, then $x_i=\mu$ so that the natural logarithm of $x_i=\mu$ becomes 0 for all individuals in the population.

are made from the rich to the poor and vice versa ("principle of transfers"). In addition, because the change in *T* depends on the ratio of the incomes *weighted by its natural logarithm*, the lower the level of income, the more sensitive *T* is to transfers so that if it is assumed that income has diminishing marginal utility (i.e. an income transfer at higher levels of income is less significant than the same transfer at lower levels of income), the *T* well represents "the welfare principle" in its formulation.

The most relevant feature of the Theil index for this study, however, is the last criteria of the ideal inequality measure: "additive decomposability". As seen in equation (2) below, the Theil index has a sort of fractal structure in which the total inequality can be additively decomposed into two independent parts – between-group and within-group inequalities – however the group is defined. In specific, the *T* as defined in equation (1) is a weighted sum of the between-group index value and the within-group index value:

$$
T = \frac{1}{N} \sum_{i=1}^{N} \left(\frac{x_i}{\bar{x}}\right) \ln\left(\frac{x_i}{\bar{x}}\right) = \sum_{j=1}^{J} p_j \left(\frac{\bar{x}_j}{\bar{x}}\right) \ln\left(\frac{\bar{x}_j}{\bar{x}}\right) + \sum_{j=1}^{J} p_j \left(\frac{\bar{x}_j}{\bar{x}}\right) T_j, \quad (2)
$$

where p_j is the population share of group j, $\bar{x}_j$ the group-specific mean, and T_j is the Theil index for group j. Since the primary goal of this study is to analyze the rising earnings inequality of post-crisis South Korea in terms of the amount of inequalities attributable to one's level of education, the Theil index and its decomposed values by the three education groups would provide empirical evidences to test the hypotheses.

Results

As can be seen in Figure 5 and Table 4, the total earnings inequality in South

Korea measured by the Theil index has continuously increased between 1997 and 2006

from 0.151 to 0.280 (almost 85% increase over the decade).

(Figure 5 about here – Theil Index Decomposition by Education)

(Table 4 about here – Theil Index Decomposition by Education)

What is notable from the change, however, is the amount of the increased inequality

attributable to the rising *within*-group inequality: Although the between-group inequality

also substantially contributed to the increase in the total inequality (18.5%), the rest of

increase (81.5%) is due to the rising inequality within each education group.[38]

Then which education category contributed most to the rising within-group

inequality? The amount of the contribution each education group made to the rising

within-group inequality during the period is presented in Figure 6 below:

(Figure 6 about here – Within-Group Inequality Trends by Education)

Although the within-group inequality increased across the three education groups,

earnings heterogeneity within the least educated group (Highschool or less) is the largest

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[38] Between-group contribution = (0.054-0.030)/(0.280-0.151) = 0.184; Within-group contribution = (0.226-0.121)/(0.280-0.151) = 0.816

followed by the most educated group (4year-college and above) and the middle group (2-3 year college).[39] The details of the rising earnings inequality within each group, which in turn contribute the rising total within inequality, are presented in Table 5.

(Table 5 about here – Within-Group Inequality Trends by Education)

In sum, despite the robust association between earnings and the level of education during the decade of post-crisis South Korea, most of the increase in overall inequality is due to the increase in within-education-group inequality, which demands additional explanations other than the role played by education.

Discussion and Conclusion

Since the 1980s, most countries have observed a substantial rise in within-nation income inequality, including both industrial and industrializing countries (Firebaugh 1999; Firebaugh 2003; Goesling 2001). Some argue that the trend of rising earnings inequality is primarily due to the diverging earnings returns to education in favor of highly educated workers – which is in turn driven by the skill-biased technical change and globalization – while others argue that it is the changes in institutions, norms, and political power that have altered the association between education and earnings inequality to the advantage of those in power. Since both perspectives equally acknowledge the strong positive association between education and earnings inequality at the cross-sectional level, what

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[39] The sum of the three within-group inequalities weighted by its income share in the distribution is the total within-inequality presented in Table 5 (e.g. for year 2006, the total within-group inequality (0.226) = (0.284*0.514) + (0.128*0.100) + (0.175*0.386))

has been contentious is whether the association between education and earnings inequality is invariable over time and space and whether the extent to which the observed *rising* earnings inequality – or changing earnings inequality in general – is associated with the level of education. Given the well-established positive association between education and earnings inequality in the existing literature, it may seem obvious to assume that education must have played a significant role on rising earnings inequality as well.

In this study, I have examined the decadal experience of South Korea after the 1997 Asian Financial Crisis in order to provide another empirical ground to judge between the two competing explanations on the role of education on rising earnings inequality. South Korea has experienced a rapid increase in income inequality since the mid-1990s, and the trend accelerated particularly after the 1997 crisis in which South Korea underwent a series of radical institutional reforms toward a more globally-integrated liberal economy. Under this new institutional arrangement where marketable skills are supposed to yield higher economic returns than before, individuals with more socioeconomic resources are better positioned to take advantage of various opportunities, thus it is expected that the highly educated, who possess one of the most crucial socioeconomic resources in the capitalist economy, may have gained more from the post-crisis economic recovery, contributing to the increasing inequality after the 1997 crisis. In other words, if the rising earnings inequality of post-crisis South Korea is indeed due to the skill-biased technical change and globalization that favor highly educated workers – as argued by marketists – the observed increase in the earning inequality ought to be significantly associated with the level of education under the environment created by the

post-crisis socioeconomic restructuring (Blau and Kahn 2002).

Against this particular temporal and spatial context, the dynamics between education and rising earnings inequality was analyzed, and what I have documented is that despite the robust relationship between education and rising earnings inequality, the substantial portion of the increase in the post-crisis South Korea earnings inequality is primarily attributable to the rise in *within*-education-group inequalities: Over 80% of the increase in the overall level of earnings inequality between 1997 and 2006 is due to the sharp rise in the within-group inequalities for all three education categories. Namely, the role of education on the rising earnings inequality of post-crisis South Korea was not substantial at best, and if we want to properly understand the processes and mechanisms of the post-crisis earnings inequality, it is necessary to investigate institutional factors other than education that have contributed to the rising within-group inequality.

Then what are the potential candidates of the institutional factors that merit further investigation in this respect? Given the nature of earnings inequality, they can be classified into two groups of changes, both of which contribute to rising inequality with different dynamics: 1) a set of institutional measures that favor employers/capital at the expense of labor (e.g. casualization of labor and regressive tax system) and 2) those that further disadvantage labor at the bottom of the income strata (e.g. weak social safety nets and conditional welfare provisioning). To be more specific, according to the experience of Western countries that underwent a similar set of 'neoliberal' reforms before South Korea (e.g. the U.S. after Reagan and the U.K. after Thatcher), the decline of the organized labor, stagnant minimum wage, casualization of labor, and shrinking welfare benefits – the consequences of the ongoing neoliberal restructuring effort for labor

market 'flexibility' – have been pointed out as the prominent factors that have contributed to rising earnings inequality since 1980s (Card and DiNardo 2002; Card, Lemieux, and Riddell 2004; DiNardo, Fortin, and Lemieux 1996; Kenworthy 2004; Lee 1999; Morris and Western 1999). In particular, the decline of the organized labor has been singled out as a critical institutional factor having had as much an impact on the rising earnings inequality as differential earnings returns to education in the U.S. (Card 2001; Western and Rosenfeld 2011).

Of the institutional/structural changes listed above, what have been particularly significant to the rising earnings inequality in post-crisis South Korea include 1) *casualization of labor* (i.e. increasing use of temporary/non-regular workers over regular workers on permanent contracts), 2) *employment quality/stability by firm size*, and 3) *historically underdeveloped social safety nets and welfare system*. First of all, over 90 percent of all new jobs created between 1998 and 2002 after the crisis were non-permanent, and wages for the non-regular workers have been stagnant while regular workers have seen their wage growing at close to double digits over the period (IMF 2004). Given that the proportion of temporary/non-regular workers (46%) was already high in South Korea compared to other OECD countries before the crisis (OECD 2000a), the acceleration in the casualization of labor after the crisis is further to worsen the earnings inequality between regular and non-regular workers. Second, the differential employment quality and stability by firm size has further contributed to the widening inequality among wage workers. Regular workers employed by large firms in South Korea have been traditionally well protected compared to their counterparts in small and medium size firms, and the gaps in earnings and employment security between the two

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groups have been widened in the wake of the 1997 crisis (Koo 2001). Lastly, unlike the

U.K. or the U.S., the neoliberal restructuring of post-crisis South Korea occurred in the

virtual absence of the welfare state: While the implementation of the neoliberal policy

measures in the two industrial countries was reactionary to the expansion of the

Keynesian welfare state until 1970s, the introduction of neoliberalism in South Korea

was rather exogenous, having been implemented as a response to the problems of the

former authoritarian dirigiste state devoid of any collective welfare system. Accordingly,

the initial level of welfare benefits was substantially lower in South Korea, and it has

been continuously maintained low during the ensuing restructuring period due to the very

logic of the neoliberal state (Cumings 1979; Gills 2000; Goodman, White, and Kwon

1998). This has exposed the substantial portion of the Korean population to the double

jeopardy of under-protection and diminishing institutional supports, which further

disadvantage workers at the bottom of income strata.

Therefore, unless the institutional/structural changes listed above are taken into

account – though nowhere near exhaustive – it is not possible to fully understand the

dynamics of the rising earnings inequality in post-crisis South Korea in particular and the

changing contours of earnings inequality across the globe observed under the current

mode of capitalist development in general. While the analysis premised on the supply and

demand of the educated workers provides critical insights to the understanding of

earnings inequality at the cross-sectional level, its explanatory power over the variability

of the association over time and space has been shown somewhat limited since what have

been actually variable along with the changing earnings distribution are not much of

diverging earnings returns to education but of institutions, social norms, and political

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power that ultimately define as well as alters the association between education and earnings.[40] Given that it is clearly known that education is a significant determinant of earnings inequality, what has been left for further investigation is how the association is embedded in an institutional and organizational context and the extent to which the robust relationship between education and earnings inequality is moderated or modified by differential wage-setting institutional arrangements and social policies.

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[40] If we are interested in the changing dynamics of *household* income, however, it would also be critical to consider changes in total household income, household member's employment conditions, and family composition (Kenworthy 2007).

Chapter 3

The Buffer Effect of Family Wealth over Economic Crisis:
Realization of Its Consumption Potential When Indeed in Need

Family wealth has long been recognized as a critical source of family well-being, social status, and political power: Not only does it provide its holders and sharers with short-term and long-term socioeconomic securities but also bestows significant life-time advantages in the achievement of further status and power, particularly at the critical junctures of life course. Although earned household income also delivers similar functions and effects to the economic well-being of household members, the possession of wealth offers extra – or, in a sense, more fundamental – socioeconomic security as a *stock* of resources that could be drawn whenever in need, as opposed to the *flow* of the earned income that could be cut in any occasion of economic distress such as unexpected unemployment or large-scale recession. As a better measure of family's total resource base, therefore, wealth ownership is as much an important indicator as the earned income to the overall well-being and living standards of family members.

Despite the significance of wealth ownership in family well-being, however, family wealth has less been the subject of social studies due to the lack of adequate data and its high level of concentration in the hands of the small population: The data that record wealth ownership, if any, have been sparse or incomprehensive, and the extremely

unequal distribution of wealth holdings renders its study less germane to the everyday life of the general public. In addition, most sociological studies have traditionally emphasized the role of labor market processes and rewards in the examination of economic well-being, contributing to the dominance of the studies on education, occupation, and income over wealth. As a consequence, previous wealth studies were rather limited to the sketchy description of wealth holdings, and the discussion on the implications of wealth ownership also confined to elite studies for its significance in their life styles and social standings.

This trend began to change with the advent of large-scale surveys and longitudinal studies in the last quarter of the twentieth century. As data collection on family wealth holdings has become more extensive and comprehensive, interests in the implications of wealth ownership for stratification and inequality have re-emerged. In addition, as the types of wealth holdings become more diversified in the industrial and post-industrial society, the possession of wealth has also become more widespread to the general public. Although the quantity and quality of wealth data is still not comprehensive enough to answer all the questions that social scientists have been able to throw to the study of labor market income, scholastic interests in family wealth have surged in recent decades, and accordingly, not only the descriptive contours of wealth holdings but the implications of wealth ownership for socio-behavioral outcomes have also become the targets of investigation.

In this vein, I explore another implication of the wealth ownership for behavioral outcomes in this study, which has less been the subject of wealth studies compared to the descriptions and classifications of wealth. In particular, I examine the potential buffer

effect of family wealth on the level of household consumption over economic crisis.

Since one of the most expected functionalities of wealth is its *buffering effect* against

financially challenging times, if it does produce the effect as hypothesized, those who

possess even very meager level of fungible family wealth could better attenuate the

severity of economic difficulties than those who do not, precisely at the time when the

extra help is most pronounced. Although household income would function similarly in

this respect, the income derived from the labor market is more likely to be disrupted

during economic crisis, thus having an extra source of income flow from the existing

household assets would provide an additional, if not critical, cushion to the economic

well-being of households during the challenging times. If family wealth indeed functions

as a "consumption potential" stocked over regular times, its effect is to be most

pronounced in the course of economic crisis when it is indeed in need.

In order to empirically test these hypotheses, I draw on the decadal experience of

South Korea after the 1997 Asian Financial Crisis. Once one of the most praised

exemplars of the state-led rapid economic development in the second half of the

twentieth century (so-called the East Asian 'developmental state'), South Korea

experienced the sudden and most severe economic crisis in the late 1997 after the Korean

War. Although the recession in the wake of the pan-Asian financial crisis was relatively

short-lived and the Korean economy came back strong in a short period of time, most

South Koreans and households tremendously suffered from the crisis and it substantially

changed the dynamics and configurations of the economy and society accordingly.

Against this context, I examine the extent to which family wealth mitigated the adverse

impact of the economic crisis and evaluate how the effect of the possession of liquid

financial assets on household consumption changed over the course of economic recovery.

In the next section, I first discuss the general significance of family wealth as "consumption potential" for household members and its working definition for this study. In the following section, I provide more detailed accounts of the backdrop of this study – South Korea after the 1997 Asian Financial Crisis – although I believe that the analytic strategies, results, and implications of this study can be easily extended to more general and similar socioeconomic contexts. Then the data, measures, and analytic methods used in this study are introduced before results are presented. In the concluding section, I highlight the results once again in order to shed some light on the implications of family wealth for the socio-behavioral outcomes of individuals and households in the study of social stratification and inequality.

Family Wealth: Its Significance as Consumption Potential

Family wealth has long been recognized as a critical, if not more fundamental, measure of overall economic well-being and living standards for family members who share it: Family wealth provides for both short- and long-term financial security, bestows social prestige, contributes to political power, and can be used to produce more wealth (Domhoff 1990; Henretta and Campbell 1978; Oliver and Shapiro 1995). However, as Spilerman (2000) points out, stratification research to date has been characterized by an almost exclusive focus on labor market processes and rewards (e.g. occupation and earnings) to the neglect of a consideration of wealth, unearned income, and consumption.

There exist various theoretical and empirical reasons why it has been so[41], but the most

critical factors have been 1) the lack of appropriate data and 2) the high-level of wealth

concentration in the hands of few. Because income from labor market activities is more

common source of financial basis for the majority of households, family wealth, which

has traditionally been highly concentrated in the hands of the small population, has less

been the subject of social research, and lack of comprehensive data on the details of

family wealth holdings further rendered the study of wealth more challenging than other

sources of incomes. As a consequence, most existing wealth studies are somewhat limited

to the analysis of trends and compositions of family wealth rather than its potential

effects for socio-behavioral outcomes of individuals or households, and even if so, the

studies mostly focus on its role as a status symbol for distinct life styles and prestige

(Kolko 1962; Mills 1956; Parkin 1971; Weber 1958).

As both challenges have become eased over the last quarter century, however,

researcher began to appreciate household asset holdings again for its implications for

overall economic well-being and living standards of family members. Given that even

modest level of wealth holdings may greatly influence economic well-being of the

majority of population, we miss much of the big picture of the living standards and life

chances of family members if we do not consider the impact of family wealth, which is

somewhat independent of earned incomes from labor market activities. In particular, it is

noteworthy that Spilerman recognizes the distinct contribution of household wealth to

family member's overall economic well-being as "consumption potential" that he defines

as "the capacity of a family to maintain a particular standard of living" (Spilerman

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[41] See Spilerman (2000) for reviews.

2000:497). This new conceptualization of family wealth is particularly significant, not only because it effectively shifts the orientation of economic well-being from individual-oriented labor market processes to the household-based consumption potential for overall living standards, but it also sheds new light on the study of inequality and personal well-being, which hitherto has been dominated by concerns over labor market processes and rewards. Although earnings and occupations are still critical for one's socioeconomic well-being, the recognition of the significance of family well-being as consumption potential is also important if we are to better understand the multifaceted nature of personal well-being from a more holistic perspective.

Given that both earned incomes from labor market and incomes generated from wealth holdings are equally critical to family members' economic well-being on the similar ground, however, what are the additional benefits that come from the understanding of family wealth as consumption potential vis-à-vis labor market earnings? In addition, how can we operationalize the concept of consumption potential in order to empirically test its significance for personal well-being? Moreover, is there any specific period of time when the effect of family wealth is more pronounced as consumption potential? Before presenting the way I attempt to address these questions on an empirical ground, I first discuss the significance of family wealth in comparison to earned incomes and the working definition of family wealth used in this study.

Family Wealth vs. Earned Income

At the technical level, wealth has several attractive features that are not shared by

earnings (Sherraden 1991; Spilerman, Lewin-Epstein, and Semyonov 1993): (a) The

income generated by wealth does not require a tradeoff between leisure and work. (b)

Unlike labor market earnings, the income flow generated by wealth does not decline with

illness or unemployment. (c) Wealth can be enjoyed without being consumed, such as

when held in the form of a fine painting or a drawing. (d) Tax law treats wealth

appreciation more favorable than labor market income. (e) In time of economic crisis, the

wealth principal can be consumed as well as used as collateral for borrowing.

The benefits of wealth ownership, however, go beyond the technical advantages

over labor market income – There are other advantages uniquely associated with wealth

that income alone cannot provide. First, as a *stock* of resources that can be converted to

cash flow when needed, the ownership of family wealth bestows extra benefits on its

holders that is distinct from the regular advantages associated with the *flow* of earned

income from labor market activities. Moreover, given that the correlation between earned

income and wealth is relatively weak and wealth is more unequally distributed than

income (Keister 2000; Wolff 2002), it is essential to investigate the dynamics of wealth

independently from that of labor market income if we are to draw a complete picture of

economic well-being of individuals and households.

Second, unlike labor market income that could be highly subjective to external

economic circumstances, family wealth provides its holders with both short- and long-

term financial/economic security (Keister and Moller 2000). While the flow of income

can easily be disrupted when the unexpected economic dislocations, such as

unemployment or recession, occur, the income generated from the stock of wealth can be

easily drawn to complement the losses whenever in need. In this sense, the possession of

wealth is a better indicator of economic security and financial well-being than labor market income alone.

Third, since family wealth resides in the unit of household as the reservoir of resources that can be drawn by any of individual members when in need of it, the amount of wealth holdings is also a better proxy of entire family members' well-being than household income. Furthermore, family wealth is often utilized to sustain individual members' life styles and opportunities within and across generations, and when substantial financial buttress is critical (e.g. college education, marriage, and housing down payment), it helps them make a smooth transition at those critical junctures of life course. In this sense, family wealth functions as "transformative assets" which give families the ability to transform their own lives and the lives of their children (Shapiro 2004). While earned income is received and used from day to day to support daily living, wealth is received and used in families at important milestones in life to create opportunities and leverage advantages for the next generation (Johnson 2006; Keister 2000; Oliver and Shapiro 1995).

Lastly, not only does wealth provide family members with a physical/material safety net as explained so far, but it also gives them a psychological safety that income may or may not provide alone. With the possession of wealth, "peace of mind" or "a cushion for the future" can be present in family member's psychological state (Johnson 2006:115), and this psychological comfort also affects various socioeconomic behaviors of individuals and households, particularly with respect to the planning and consumption of their financial resources (Danziger, Haveman, and Plotnick 1981).

In summary, the presence of household wealth is much more consequential to a

family's living standard than can be conveyed by a simple calculation of the share it contributes to family income – While the income flow from labor market activities cover day-to-day expenses, such as rents and mortgages, the stock of wealth allows families goes beyond that. In this vein, I investigate another significant impact of wealth possession on family member's well-being, which exemplifies the extra benefits of family wealth vis-à-vis labor market income: the buffer effect of family wealth on household consumption over economic crisis when the flow of labor market income is highly likely to be disrupted. Before explaining hypotheses and analytic strategies to test the buffering effect hypotheses, however, the measures of family wealth used for that purpose is first defined.

Working Definition of Family Wealth and Hypotheses

As I have briefly argued earlier, among the numerous potential implications of family wealth for socio-behavioral outcomes of households, I particularly focus on its consumption potential and examine how the consumption potential of wealth is actually realized in a specific context. Because family wealth is comprised of different types of assets and each type of assets functions differently in different settings, however, it is necessary to first define what it is and which component of the assets is to be the focal point of this study. In general, family wealth is defined as the amount of household *net worth* measured by total assets minus total liabilities:

Family Wealth = Net Worth = Total Assets – Total Liabilities.

The total assets again can be subdivided into two broad categories, depending on the form it takes and the degree that it can be readily converted for cash flow: 1) financial assets (e.g. savings, stocks, and bonds) and 2) non-financial assets (e.g. housing, real estates, and vehicles). In the category of total liabilities, mortgages, car loans, student loans, and credit card debt account for most of the household debt.

Between the two types of household assets, financial assets that can be readily converted to instant cash flow when needed – i.e. *liquid* financial assets such as capital gains from housing and stock ownership – are the primary variable of interest in this study. In particular, by examining how the possession of the liquid financial assets affects household consumption behavior over the course of economic crisis differently from the ensuing period of stable economic growth, I aim to evaluate the following two hypotheses:

> *Hypothesis 1*: In the wake of economic crisis, liquid financial assets are to be drawn to protect the level of household consumption, working as a buffer against the adverse economic circumstances. In other words, the consumption potential of family wealth is to be realized – and most pronounced – at the time when it is indeed in need, such as economic crisis;

> *Hypothesis 2*: When the economic crisis ends and the economy is back to a stable period of growth, the buffer effect of the liquid financial assets is unnecessary so that the possession of liquid financial assets would not exert an extra effect on the

level of household consumption vis-à-vis earned household income. In this sense, family wealth goes back to the potential status as the economy stabilizes.

Although the possession of any type of family wealth would be beneficial to the economic well-being of households in economic crisis, I hypothesize that liquid financial assets would have more direct impacts on the level of household consumption, such as monthly living expenses, in the period of economic hardships since they are more fungible assets readily available for immediate use when needed. In addition, I expect the significance of family wealth as consumption potential to be most pronounced during the period of economically challenging times, and if it does produce the effect as hypothesized, those who possess even very meager amount of the financial wealth could better attenuate the severity of economic difficulties than those who do not. Moreover, even if household income would function similarly in this regard, the income derived from labor markets is more likely to be disrupted during economic crisis, thus having an extra source of income flow from the existing household assets would provide an additional, if not critical, cushion to the well-being of household members during the economically challenging times. In sum, if family wealth indeed functions as a "consumption potential," which is stocked over regular times, its effect is expected to be most pronounced precisely at the time when the extra help is indeed in need.

Before discussing the data, measures, and analytic methods that I utilize to empirically test these hypotheses, a brief introduction to the backdrop of this study – i.e. South Korea after the 1997 Asian Financial Crisis – follows first in the next section.

The Backdrop of Study: South Korea After the 1997 Asian Financial Crisis

The 1997 Asian Financial Crisis (AFC) – which started from Thailand in the summer of 1997, then swiftly spread to the rest of East Asian countries by the end of the same year – significantly debilitated most East and South East Asian economies at the time.[42] Although the crisis was relatively short-lived, followed by a steady economic recovery across the region, the speed and magnitude of the Asia's collective stumble, the erosion of the wealth, and the increases in poverty and social insecurity during the crisis were massive enough to be referred to as the regional equivalent of the Great Depression in the 1930s (Wade 1998a). South Korea, once praised as the exemplar of the developmental state (Woo-Cumings 1999) up to the crisis, was among the hardest hit by the financial crisis, suffering the worst economic recession since the Korean War in the early 1950s (See Table 6 for the extent to which household income and consumption was affected by the Asian Financial Crisis). Facing massive capital flight with its own foreign reserves rapidly running out, Korean banks and *chaebols*[43] were unable to pay back international loans in time, and in the end, the government had to ask the International Monetary Fund (IMF) for emergency bailouts so as not to confront the worst scenario of national bankruptcy.

(Table 6 about here – Change in Income and Consumption in 1998)

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[42] Thailand, Malaysia, Indonesia, and South Korea were particularly hit hard by the crisis.

[43] *Chaebols* are the family-controlled large, diversified conglomerates that have played a key role in the industrial development of South Korea, particularly after 1960s.

As can be seen in Table 2 and Figure 7, however, overall macroeconomic indicators, such as annual economic growth rates and unemployment rates, began to rebound as early as late 1998 and continuously improved until the recent global financial crisis in 2008 (See Table 2 and Figure 7 below for details).

(Table 2 about here – Principle Economic Indicators)

(Figure 7 about here – Macroeconomic Performance)

Against this context, I divide post-crisis South Korea into two periods in order to empirically test the hypotheses advanced in this study: one for the period of economic recovery (between 1997 and 2001) and the other for the period of sustained economic growth (between 2001 and 2006). [44] Then I compare and contrast how the effect of household liquid financial assets on household consumption differs in the two periods of different economic conditions.

Analysis on the Trajectories of Household Consumption by Family Wealth in Post-AFC South Korea (1997-2006)

Data and Analytic Sample

Korean Labor and Income Panel Study (KLIPS) is the most comprehensive

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[44] Note that the Korean economy suffered most from the 1997 Asian Financial Crisis in 1998, recovered to the pre-crisis level in 2001 when South Korea also paid off all the international debts, and began to grow again since then.

longitudinal survey that contains various information on the Korean labor market and related socioeconomic activities of households and individuals residing in the urban areas of South Korea (Korea Labor Institute 2009). Benchmarking the success of other nationally representative panel surveys, such as the Panel Study of Income Dynamics in the U.S., the Korea Labor Institute (KLI) launched its first wave of KLIPS in year 1998 with a sample of 5000 households and their 13,321 household members, who are 15 years or above, and has continuously tracked the initial samples and branched households on an annual basis.[45] The original sample of the households was selected by a two-stage stratified cluster sampling (random choice of urban households within the Korean Census enumeration districts), and the data are principally collected by a direct face-to-face interview comprised of separate questionnaires for the household and its all individual members aged 15 and above. As of 2011, fourteenth wave of data collection is being conducted, and the household and individual datasets from wave 1 through 11 are readily available on the Korea Labor Institute website for public use.[46]

The major topics of the KLIPS cover both household characteristics (e.g. household composition, housing information, and financial condition) and individual socioeconomic activities particularly related to labor market (e.g. employment, education, income, job training, working conditions and welfare, etc.) with occasional supplemental surveys for specific demographic groups. Since the primary goal of this study is to follow and model the patterns of household consumption (e.g. household monthly living expenses) by the possession of family wealth in post-crisis South Korea, the analytic

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[45] The original household retention rate is 75.5% by wave 10, which is comparable to other highly regarded national panel studies such as the U.S. PSID, the British BHPS, and the German GSOEP.

[46] Visit http://www.kli.re.kr/kli_ehome/main/main.jsp for the details.

sample for this study is limited to households with over zero monthly living expenses, which results in 6359 households with 35243 household-year observations from the first ten waves of the KLIPS (1997-2006).

Measures

The dependent variable of this study is the *logged household's average monthly living expenses*, and the primary independent variable is the *possession of liquid financial assets* (Yes/No). In addition, total household income, number of household members, home ownership, household savings and debt are also included as controls in a successive modeling procedure. The descriptive statistics of the variables are summarized in Table 7 for 1997 – 2006.

(Table 7 about here – Variables and Descriptive Statistics by Year)

Analytic Method: The Multilevel Model for Change

I employ a set of regression analysis in order to empirically test the association between the level of household consumption and family wealth holdings and how the relationship varies with external economic conditions. In particular, the *Multilevel Model for Change* (Singer and Willett 2003) is adapted to model the changing trajectories of household monthly living expenses in post-AFC South Korea by the possession of liquid

financial assets, net of confounding factors, such as total household income and debt, that

potentially influence the association between the household living expenses and liquid

financial assets.

As a special case of the general multilevel modeling approach[47], the Multilevel

Model for Change (the MMC) is widely used to model subject's changing trajectories on

a certain outcome over time (i.e. intra-subject change over time) in relation to a set of

explanatory variables that capture systematic patterns across the individual trajectories

(i.e. inter-subject differences in change).[48] In other words, the intra-subject change over

time is modeled as a function of clocking time at the 'base' level (or level-1), then the

individual change trajectories themselves are modeled as a function of explanatory

variables at a higher level (or level-2) in order to explain the variability in the individual

change trajectories at the level-1. To implement the MMC, therefore, panel data with

multiple observations on the same subject over time are essential in that the within-

subject observations across time become the source for modeling at the level-1, and once

the individual trajectories are estimated, the estimates from the level-1 in turn are

modeled as a function of individual characteristics at the level-2.[49] With these multilevel

data and modeling structures, the MMC is utilized primarily to answer two broad

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[47] With multiple competing terms, such as hierarchical models, random-effects or random-coefficient models, and mixed-effects models, the multilevel models are extensions of regression in which observations (level-1 data points) are nested in groups (level-2 clusters) and the parameters – the regression coefficients – can vary by group with a given probability model. See Fitzmaurice et al (2004), Gelman and Hill (2007), Rabe-Hesketh and Skrondal (2008), and Raudenbush and Bryk (2002) for further details.

[48] There exist many other convincing names for this particular statistical method, such as Hierarchical Linear Models, random-coefficients models, mixed-effects models, or growth curve analysis, but I prefer this term, the Multilevel Model for Change, since it better reflects the aims and nature of this study both at the empirical and theoretical level.

[49] Although the KLIPS is an unbalanced dataset with missing observations for some households in some years, the MMC is not affected as long as enough observations are contained in other observations.

questions: 1) How does the outcome change over time (i.e. within-subject change over time); 2) Can we predict the difference in these changes (i.e. inter-subject differences in change)? As expected, the first question can be answered with the level-1 sub-model while the second one with the level-2 sub-model.

With this two-level structure of the data and analysis in mind, what I primarily aim to model in this study is the trajectories of household living expenses by the possession of liquid financial assets between 1997 and 2006, using both the level-1 and level-2 observations and variables. First, at the level-1, I simply model the within-household expense trajectories as a function of time with household-year observations, allowing the rate of change to vary from one household to another (See equation (3) below). Note that, however, we use a linear spline function – instead of one straight line or a quadratic curve – in modeling the household expense trajectories between 1997 and 2006 because I have strong theoretical and empirical reasons that support the trajectories of household living expenses substantially changed around 2001.[50] As can be seen in equation (3), the two separate linear regression lines are split and adjoined in 2001 to reflect the two potentially different trends in post-crisis South Korea:

$$\ln Y_{it} = \pi_{0i} + \pi_{1i}\text{Pre2001}_t + \pi_{2i}\text{Post2001}_t + \varepsilon_{it} \qquad (3)$$

$$\pi_{0i} = \gamma_{00} + \delta_{0i} \qquad (4)$$

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[50] The Korean economy suffered the most from the 1997 Asian Financial Crisis in 1998, recovered to the pre-crisis level in 2001, and began to grow again since then. Thus it seems logical to divide the post-crisis Korean economy into the two periods where the dynamics of household income and expenses changed accordingly around 2001.

$$\pi_{1i} = \gamma_{10} + \delta_{1i} \qquad\qquad (5)$$

$$\pi_{2i} = \gamma_{20} + \delta_{2i} \qquad\qquad (6)$$

where

$\ln Y_{it}$ = the natural log of household i's mean monthly living expenses in year t[51];

$Pre2001_t$ = the first part of the linear spline function representing year 1997-

2001[52];

$Post2001_t$ = the second part of the linear spline function representing year

2001-2006;

ε_{it} = the stochastic disturbance of the household i in year t;

and

π_{0i} = the expected logged living expenses of household i in year 1997 – or an

individual intercept – which is a function of the grand mean across

households, γ_{00}, and individual random effect, δ_{0i};

π_{1i} = the rate of change in household i's logged living expenses between 1997

and 2001 which is a function of grand mean across households, γ_{10}, and

individual household random effect δ_{1i};

π_{2i} = the rate of change in household i's logged expensed between 2001 and

2006 which is a function of grand mean across households, γ_{20}, and

individual household random effect δ_{2i}.

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[51] The size distribution of variables such as earnings and living expenses tend to be skewed, and logarithmic transformations of such variables reduce both skewness and heteroscedasticity. In addition, interpretation is convenient for variables like earnings and living expenses.

[52] Year variables do not have the subscript i because the KLIPS is a times-structured panel dataset in which data collection schedules does not vary across subjects.

In sum, this level-1 component of the multilevel model, also known as the *individual growth model*, represents the change in average monthly living expenses we expect each household to experience during the time period under study. In estimating the parameters through the Maximum Likelihood Estimation, I additionally assume that;

1) ε_{it} is independently and normally distributed with a mean of 0 and constant variance, σ_ε^2;

2) the vectors of random errors at level-2 (i.e. δ_{0i}, δ_{1i}, and δ_{2i}) are multivariate normal, each with a mean of 0, same variance (σ_0^2, σ_1^2, and σ_2^2 respectively) and covariance among the random elements;

3) the errors at level-1 and level-2 are also independent;

4) the predictors at each level are not correlated with the random effects at the other level.

We can also represent the same level-1 model in the composite form:

$$\ln Y_{it} = (\gamma_{00} + \delta_{0i}) + (\gamma_{10} + \delta_{1i})\text{Pre2001}_t + (\gamma_{20} + \delta_{2i})\text{Post2001}_t + \varepsilon_{it}; \quad (7)$$

$$\ln Y_{it} = [\gamma_{00} + \gamma_{10}\text{Pre2001}_t + \gamma_{20}\text{Post2001}_t] + \\ [\delta_{0i} + \delta_{1i}\text{Pre2001}_t + \delta_{2i}\text{Post2001}_t + \varepsilon_{it}], \quad (8)$$

where equation (4), (5), and (6) are inserted into equation (3) in place of π_{0i}, π_{1i}, and π_{2i} respectively. As can be seen in equation (8), after the rearrangement of the terms in

equation (7), the terms in the first bracket represent a structural part (or *fixed effects*) of

the baseline model while those in the second bracket a stochastic part (or *random effects*).

Also note that the year variables are centered so that the intercept term represents

household *i*'s expected logged living expenses in year 1997.

Next, at the level-2, I pool the information from the level-1 analysis – i.e.

variations in the rate of household living expense changes (or random coefficients for

each household) – in order to model the inter-household differences in the living expense

trajectories (or individual household coefficients) with covariates. If the goal of the level-

1 analysis with equation (3) is to describe the *shape* of each household's living expenses

growth (or decline) trajectory over time, the objective of the level-2 analysis is to detect

heterogeneity in change across households as well as to determine the relationship

between the shape of each household's living expenses trajectory and a series of

independent variables, such as the possession of liquid financial assets. Equation (9)

below represents the composite model with both the level-1 and level-2 variables and

estimates combined:

$$
\begin{aligned}
\ln Y_{it} = &\left[\left(\gamma_{00} + \sum_{j} \gamma_{0j} TVC_{itj} + \sum_{k} \gamma_{0k} TIC_{ik} \right) \right. \\
&+ \left(\gamma_{10} + \sum_{j} \gamma_{1j} TVC_{itj} + \sum_{k} \gamma_{1k} TIC_{ik} \right) Pre2001_{t} \\
&+ \left. \left(\gamma_{20} + \sum_{j} \gamma_{2j} TVC_{itj} + \sum_{k} \gamma_{2k} TIC_{ik} \right) Post2001_{t} \right] \\
&+ [\delta_{0i} + \delta_{1i} Pre2001_{t} + \delta_{2i} Post2001_{t} + \varepsilon_{it}],
\end{aligned}
\tag{9}
$$

where TVC represents a set of time-varying covariates and TIC a set of time-invariant covariates, both of which vary across different models.[53] Once again, with this composite model that combines the level-1 and level-2 sub-model, we can not only investigate the within-household variations of living expenses over time but also model and explain the inter-household differences in the trajectories with various covariates.

Results

The results of the four different MMC models are presented and summarized in Table 8 below.

(Table 8 about here – Results of the MMC)

In Model 1, in which only equation (3) is estimated (i.e. the trajectories of individual household living expenses between 1997 and 2006 with a linear spline function), we can see that the rate of change in the household living expenses increases faster between 1997 and 2001 than between 2001 and 2006 as hypothesized (0.1036 and 0.0894 respectively). In Model 2, the primary variable of interest in this study – the possession of liquid financial assets – is added to Model 1 in order to examine the significance of liquid financial assets in household living expenses. The result shows that the possession of liquid financial assets has a significantly positive effect on the level of

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[53] Because it is inconvenient to represent time-varying covariates in the separate hierarchical equations as in equation (3) – (6), only the composite form is presented here. Also note that the TVC terms have a subscript t to denote that the TVC's vary across time while TIC's do not.

household living expenses, and on average, those households that possess any type of

liquid financial assets tend to spend 6.38% more for monthly living expenses than those

who do not.[54] In Model 3, the rest of socio-demographic variables – the total household

income, number of household members, home ownership, savings, and debt – are

included to measure their independent effects on household living expenses as well as to

test the robustness of the association observed in Model 2 net of these socio-demographic

variables. As much expected, the effects of total household income, number of household

members, and home ownership all have significantly positive effects on the level of

household living expenses, and the effect of liquid financial assets on household living

expenses observed in Model 2 still appears robust even after accounting for these socio-

demographic variables.

Model 4, which is the final model, includes all the variables in Model 3 and their

interaction terms with the year spline function that divides post-crisis South Korea into

two periods as defined earlier. In this model, the significance of all the variables included

in Model 3 is preserved as they are except for the effect of household financial debt: Its

effect appears significantly positive in Model 3 while the sign of the effect has switched

to negative in Model 4. The most significant part of this model for this study, however, is

the direction and significance of the interaction terms.[55] First, the effect of total

household income is as expected: Additional household income has a positive effect on

the rate of change in household living expenses throughout the period although its effect

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[54] Interpretation of the coefficient in terms of percentage = $(e^{coefficient} - 1)*100 = (e^{0.0619} - 1)*100 = 0.0638*100 = 6.38$ (%)

[55] Note that the estimated coefficients of the interaction terms denote the effect of the respective variables on the *rate* of change in household living expenses over the period, not the absolute effect of each variable on the level of household living expenses which is represented in the coefficients of the main terms in the same model.

is more pronounced during the period of economic recovery (0.0037 for 1997-2001) than

in the period of a stable economic growth (0.0003 for 2001-2006). Second, although not

as clear as the effect of household income, the effects of household savings and debt are

also interpretable: Households tend to spend savings to weather the adverse impact of

economic crisis over the period of economic recovery (0.0042 for 1997-2001) and begins

to save again when the economy starts to grow (-0.0003 for 2001-2006). In the similar

vein, the effect of household debt on the rate of change in household living expenses is

positive over the first period (0.0188 for 1997-2001) and becomes negligible in the

second period since people tend to borrow more when the economy is still in a recovery

stage. Lastly, but most importantly for this study, the effects of the possession of liquid

financial on the rate of change in household living expenses over the period: At first

glance, it seems perplexing because the sign of the coefficients of the two interaction

terms appear reversed – the effect of the liquid financial assets has a significantly

negative impact on the rate of change in household living expenses over the recovery

period (-0.007 for 1997-2001) while it has a positive but not significant effect in the

period of the stable economic growth. If the coefficients of the interaction terms are

examined in line with my hypotheses for this study, however, they are not as much

perplexing as they appear. Throughout this study, I hypothesize that the effect of the

possession of liquid financial assets would be most pronounced *at* the time of economic

crisis if it has indeed the consumption potential for weathering out difficult times; and

according to this hypothesis, its effect should appear strongest at the time of economic

crisis and could diminish as the economy recovers. The estimated coefficients of liquid

financial assets in Model 4 indeed show this pattern in that its effect on the level of

household living expenses appears strongest at the time of the economic crisis among the included economic variables (0.0791, the coefficient of the main-effect term for 1997), became less pronounced as the economy substantially recovered between 1997 and 2001, and finally became negligible on the rate of change in household living expenses when the economy is back to the period of stable growth after 2001. These empirical results, therefore, not only support the hypotheses that I set up to test the consumption potential of liquid financial assets but also clarify the pattern of the utilization of the wealth whether it is most utilized when indeed in need.

Discussion and Conclusion

Drawing on the decadal experience of South Korea after the 1997 Asian Financial Crisis, I have examined the effect of family wealth on household consumption in the wake of economic crisis in order to test the potential buffer effect of family wealth on the economic well-being of households against economically challenging times. Among the numerous socio-behavioral implications of wealth ownership, I have paid particular attention to its consumption potential as defined by Spilerman (2000) and conducted a set of empirical analyses to see if the consumption potential of family wealth is indeed realized as expected when households are most in need of it – the period of economic crisis. In other words, if family wealth – particularly liquid financial assets that can be readily converted to cash flow when in need – functions as consumption potential that is stocked over regular times to be used to buffer against the adverse impact of economic crisis, households who possess any type of liquid financial assets are naturally to draw

the resources to sustain their consumption level at the time of economic crisis and stop drawing when the extra resources become unnecessary as the economy recovers from crisis.

The results of statistical analysis based on household panel data and the multilevel model for change support this hypothesis, showing that the effect of liquid financial assets on the level of household consumptions is the strongest at the time of economic crisis, diminishes as the economy recovers to the pre-crisis level, and becomes negligible when the economy starts to grow and the regular sources of household income – earned income from labor market activities – flow back to households again. According to these results, therefore, family wealth indeed provides extra cushion to the economic well-being of households independent of earned household income, and its effect as consumption potential is most heightened when it is indeed in need.

However, since this study focuses only on the effects of within-household asset holdings, not accounting for inter-household asset transfers, the dynamics of family wealth and consumption observed in this study may be altered once the inter-household asset transfers are included in the models. Furthermore, it would be also intriguing to investigate potential interaction effects between family wealth and household income on consumption. For instance, I have only examined independent effects of liquid financial assets and household income on the level of household monthly living expenses in this study without allowing interaction effects between the two independent variables; but if they are further examined with a different statistical model particularly devised to test the interaction effects, interesting patterns of relationship between wealth and income on consumption are likely to emerge, which merits further investigation.

Lastly, the buffer effect of liquid financial assets on household consumption in the course of economic crisis is only one dimension of the consumption potential that the ownership of family wealth implies: As a better measure of overall economic well-being and living standards for family members than the flow of earned income alone, family wealth would not only provide this type of temporary buffering effect against economically challenging times but it would also have more substantial impacts on other socioeconomic dimensions with longer-term implications. Given that even meager level of family asset holdings have a significant impact on the economic well-being of households, further investigation into the dynamics of family wealth in conjunction with labor market income would surely enrich the study of socioeconomic behaviors of individuals and households.

Chapter 4

Marital Status and Life Satisfaction under Economic Hardships

Numerous studies have attested various benefits of marriage on individual's physical and emotional well-being: Married people not only tend to live longer than the non-married but they also stay physically and emotionally healthier throughout their lifetime (Coombs 1991; Dush, Taylor, and Rhiannon 2008; Lee, Seccombe, and Shehan 1991). Although there exist competing hypotheses in the explanation of the "marriage premium", such as selection versus protection/support (Stutzer and Frey 2006), the positive effects of marriage on personal well-being are considered almost universal across time and location (Glenn and Weaver 1988; Stack and Eshleman 1998).

However, does the "marriage premium" remain unchallenged during the period of severe economic hardships? In particular, would married people still report higher level of life satisfaction than the non-married even under severe economic hardships such as economic crisis? If the protective effect of marriage still functions positive even at the time of economic crisis, the married would report higher level of life satisfaction than the non-married; but since it is also likely that married people would feel more burdens and pressures about their family during economic hardships, this may diminish or nullify the positive protective effect of marriage on life satisfaction observed at regular times. Furthermore, when most people report a higher level of life satisfaction as the economy

recovers from crisis, do the responses of the married show a different pattern from the rest of people? Although it seems reasonable to assume that married people would show a higher rate of change in life satisfaction in the course of economic recovery, it is also equally likely that the rate of change of the married would not be much different from the rest of groups – or may be lower than the rest of groups – if the marriage premium already worked positive at the time of economic crisis. Based on these theories and assumptions, I primarily aim to test following two hypotheses in this study:

Hypothesis 1: If the marriage premium still works positive even under severe economic hardships, the married would report higher *level* of life satisfaction than the non-married at the time of economic crisis after accounting for known covariates.

Hypothesis 2: As the economy recovers from economic crisis, however, the *rate* of change in the level of life satisfaction of the married in the course of economic recovery would not be much different from – or may be lower than – the rest of people if the supposed marriage premium on life satisfaction already worked positive at the time of economic crisis.

In order to empirically test these two hypotheses regarding marital status and the level of life satisfaction under economic hardships, I draw on the experience of South Korea between 1998 and 2001 when South Korea suffered most from the 1997 Asian Financial Crisis and recuperated to the pre-crisis level by the end of the period. Based on

the Korean Labor and Income Panel Study (1998-2001) and three different sets of

regression analyses[56], I first analyze the cross-sectional association between marital

status and life satisfaction in year 1998 to address the first hypothesis then investigate the

potentially differential trajectories of the level of life satisfaction by marital status

between 1998 and 2001 in order to address the second hypothesis of this study. Before I

discuss the details of the data, measures, and analytic methods, the backdrop of this study

– South Korea in the wake of the 1997 Asian Financial Crisis – is briefly introduced to

contextualize the empirical analyses.

**The Backdrop of Study: South Korea in the Wake of the 1997 Asian Financial Crisis
(1998-2001)**

The 1997 Asian Financial Crisis (AFC) – which started from Thailand in the

summer of 1997, then swiftly spread to the rest of East Asian countries by the end of the

same year – significantly debilitated most East and South East Asian economies at the

time.[57] Although the crisis was relatively short-lived, followed by a steady economic

recovery across the region, the speed and magnitude of the Asia's collective stumble, the

erosion of the wealth, and the increases in poverty and social insecurity during the crisis

were massive enough to be referred to as the regional equivalent of the Great Depression

in the 1930s (Wade 1998a). South Korea, once praised as the exemplar of the

developmental state (Woo-Cumings 1999) up to the crisis, was among the hardest hit by

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[56] Multiple linear regression model and a cumulative logit model for ordinal outcomes is used for the first
hypothesis while the multilevel model for change is utilized for the second hypothesis.

[57] Thailand, Malaysia, Indonesia, and South Korea were particularly hit hard by the crisis.

the financial crisis, suffering the worst economic recession since the Korean War in the early 1950s. Facing massive capital flight with its own foreign reserves rapidly running out, Korean banks and *chaebols*[58] were unable to pay back international loans in time, and in the end, the government had to ask the International Monetary Fund (IMF) for emergency bailouts so as not to confront the worst scenario of national bankruptcy.

As can be seen in Table 2 and Figure 7, however, overall macroeconomic indicators, such as annual economic growth rates and unemployment rates, began to rebound as early as late 1998 and continuously improved until the recent global financial crisis in 2008.

(Table 2 about here – Principle Economic Indicators)

(Figure 7 about here – Macroeconomic Performance of South Korea)

In testing my hypotheses advanced in this study, however, I focus on 1) year 1998 when South Korea suffered most from the AFC and 2) the following three years of substantial economic recovery (1998-2001) in which the Korean economy completely recovered to the pre-crisis level while also paying off all the international debt from the 1997 AFC.[59]

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[58] *Chaebols* are the family-controlled large, diversified conglomerates that have played a key role in the industrial development of South Korea, particularly after 1960s.

[59] The Korean economy suffered most from the 1997 Asian Financial Crisis in 1998, recovered to the pre-crisis level in 2001, and began to grow again since then.

Marital Status and Life Satisfaction in Post-AFC South Korea (1998-2001)

Data and Analytic Sample

Korean Labor and Income Panel Study (KLIPS) is the most comprehensive

longitudinal survey that contains various information on the Korean labor market and

related socioeconomic activities of households and individuals residing in the urban areas

of South Korea (Korea Labor Institute 2009). Benchmarking the success of other

nationally representative panel surveys, such as the Panel Study of Income Dynamics in

the U.S., the Korea Labor Institute (KLI) launched its first wave of KLIPS in year 1998

with a sample of 5000 households and their 13,321 household members, who are 15 years

or above, and has continuously tracked the initial samples and branched households on an

annual basis.[60] The original sample of the households was selected by a two-stage

stratified cluster sampling (random choice of urban households within the Korean Census

enumeration districts), and the data are principally collected by a direct face-to-face

interview comprised of separate questionnaires for the household and its all individual

members aged 15 and above. As of 2011, fourteenth wave of data collection is being

conducted, and the household and individual datasets from wave 1 through 11 are readily

available on the Korea Labor Institute website for public use.[61]

The major topics of the KLIPS cover both household characteristics (e.g.

household composition, housing information, and financial condition) and individual

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[60] The original household retention rate is 75.5% by wave 10, which is comparable to other highly regarded national panel studies such as the U.S. PSID, the British BHPS, and the German GSOEP.

[61] Visit http://www.kli.re.kr/kli_ehome/main/main.jsp for the details.

socioeconomic activities particularly related to labor market (e.g. employment, education, income, job training, working conditions and welfare, etc.) with occasional supplemental surveys for specific demographic groups. In addition, it also collects on various measures of subjective well-being such as the reported level of life satisfaction. In this study, 13,112 individuals with 39,573 person-year observations between 1998 and 2001 (Wave 1–4) are used as the analytic sample for statistical modeling.

Measures

The dependent variable of this study is the respondent's *self-rated level of life satisfaction*[62], and the primary independent variable is respondent's marital status categorized into five groups (never married, married, separated, divorced, and widowed). In addition, respondent's age, sex, health status, education, employment status, household income, and marriage length are included as controls in a successive modeling procedure (Stutzer and Frey 2006). The descriptive statistics of these variables are summarized in Table 9 for 1998-2001.

(Table 9 here – Variables and Descriptive Statistics by Year)

Analytic Methods: Three Regression Models

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[62] Respondent's self-rated report on the question, "All things considered, how satisfied are you with your current life on a scale of 1 (very dissatisfied) to 5 (very satisfied)?"

1) Testing the First Hypothesis: Multiple Linear Regression Model and Cumulative Logit Model for Ordered Outcomes

First, the *multiple linear regression model* (Fox 2008) is used to address the first hypothesis of this study – "Would married people still report higher level of life satisfaction than the non-married even under severe economic hardships such as economic crisis?" In particular, based only on the 1998 KLIPS data – the first wave of the four used for this study – the statistical association between marital status and the self-reported level of life satisfaction is tested with a series of multiple linear regression models controlling for known covariates:

$$Y_i = \beta_0 + \sum_j \beta_j MS_{ij} + \sum_k \beta_k COV_{ik} + \varepsilon_i, \tag{10}$$

where

Y_i = respondent *i*'s reported level of life satisfaction in year 1998;

MS_{ij} = respondent *i*'s marital status in year 1998[63];

COV_{ik} = a set of covariates, such as respondent's age, sex, health, education, employment status, household income, and marriage length, that vary across different models;

ε_i = the stochastic disturbance of the individual *i* in year 1998.

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[63] Since the marital status variable contains five nominal categories with "never married" as the reference category in this analysis, four indicator variables for the rest of the categories (i.e. married, separated, divorced, and widowed) are included in the actual equation and estimation (indexed with *j*).

Then the results of the multiple linear regression models are to be compared and complemented with those from a *cumulative logit model for ordered outcomes* with the same set of variables in order to confirm that the limited nature of the dependent variable – which ranges only from 1 to 5 with potentially uneven intervals in-between – do not actually affect the substantial interpretation of the results from the multiple linear regression models estimated with equation (10) (Agresti 2002; Long 1997; Powers and Xie 2000). The cumulative logit model for ordered outcomes is estimated with:

$$\ln \frac{\Pr(y_i \leq j | \mathbf{x}_i)}{\Pr(y_i > j | \mathbf{x}_i)} = \tau_j - \mathbf{x}_i \boldsymbol{\beta} \qquad \text{for } j = 1, J - 1 \qquad (11)$$

where

τ_j = a cutpoint for group *j*, which denotes different groups of marital status here[64];

$\mathbf{x}_i \boldsymbol{\beta} = \sum_j \beta_j MS_{ij} + \sum_k \beta_k COV_{ik}$;

and the rest of notations is the same as in equation (10).

2) Testing the Second Hypothesis: The Multilevel Model for Change

After testing the first hypothesis with the multiple linear regression models and

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[64] In this analysis, the ordered logit model is identified by assuming that the intercept is 0, and the values of all cutpoints are estimated.

the cumulative logit model, I use the *Multilevel Model for Change* (Singer and Willett

2003) to test if the rate of change in the level of life satisfaction differs by marital status

during the period of economic recovery in post-crisis South Korea between 1998 and

2001. The set of variables included in this model is the same as those variables included

in the previous analysis, but it has extra *interaction terms* between respondent's marital

status and year, which is necessary to address the second hypothesis: "When most people

report a higher level of life satisfaction as the economy recovers from crisis, do the

responses of the married show a different pattern from the non-married?"

As a special case of the general multilevel modeling approach[65], the Multilevel

Model for Change (the MMC) is widely used to model subject's changing trajectories on

a certain outcome over time (i.e. intra-subject change over time) in relation to a set of

explanatory variables that capture systematic patterns across the individual trajectories

(i.e. inter-subject differences in change).[66] In other words, the intra-subject change over

time is modeled as a function of clocking time at the 'base' level (or level-1), then the

individual change trajectories themselves are modeled as a function of the explanatory

variables at a higher level (or level-2) in order to explain the variability in the individual

change trajectories at the level-1. To implement the MMC, therefore, panel data with

multiple observations on the same subject over time are essential in that the within-

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[65] With multiple competing terms, such as hierarchical models, random-effects or random-coefficient models, and mixed-effects models, the multilevel models are extensions of regression in which observations (level-1 data points) are nested in groups (level-2 clusters) and the parameters – the regression coefficients – can vary by group with a given probability model. See Fitzmaurice et al (2004), Gelman and Hill (2007), Rabe-Hesketh and Skrondal (2008), and Raudenbush and Bryk (2002) for further details.

[66] There exist many other convincing names for this particular statistical method, such as Hierarchical Linear Models, random-coefficients models, mixed-effects models, or growth curve analysis, but I prefer this term, the Multilevel Model for Change, since it better reflects the aims and nature of this study both at the empirical and theoretical level.

subject observations across time become the source for modeling at the level-1, and once

the individual trajectories are estimated, the estimates from the level-1 in turn are

modeled as a function of individual characteristics at the level-2.[67] With these multilevel

data and modeling structures, the MMC is utilized primarily to answer two broad

questions: 1) How does the outcome change over time (i.e. within-subject change over

time); 2) Can we predict the difference in these changes (i.e. inter-subject differences in

change)? As expected, the first question can be answered with the level-1 sub-model

while the second one with the level-2 sub-model.

With this two-level structure of the data and analysis in mind, what I primarily

aim to model in this study is the trajectories of individual level of life satisfaction by

marital status between 1998 and 2001, using both the level-1 and level-2 observations

and variables. First, at the level-1, I simply model the within-individual life satisfaction

trajectories as a function of time with person-year observations, allowing the rate of

change to vary from one individual to another:

$$Y_{it} = \pi_{0i} + \pi_{1i} Year_t + \varepsilon_{it} \tag{12}$$

$$\pi_{0i} = \gamma_{00} + \delta_{0i} \tag{13}$$

$$\pi_{1i} = \gamma_{10} + \delta_{1i} \tag{14}$$

where

Y_{it} = respondent i's reported level of life satisfaction in year t;

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[67] Although the KLIPS is an unbalanced dataset with missing observations for some households in some years, the MMC is not affected as long as enough observations are contained in other observations.

Year_t = a continuous variable representing year 1998 – 2001[68];

ε_{it} = the stochastic disturbance of the individual i in year t;

and

π_{0i} = the expected level of life satisfaction of individual i in year 1998 – or the

individual intercept i in 1998 – which is a function of the grand mean

across individuals, γ_{00}, and individual random effect, δ_{0i};

π_{1i} = the rate of change in individual i's level of life satisfaction between 1998

and 2001 which is a function of grand mean across individuals, γ_{10}, and

individual household random effect δ_{1i};

In sum, this level-1 component of the multilevel model, also known as the *individual growth model*, represents the change in average level of life satisfaction we expect each individual to experience during the time period under study. In estimating the parameters through the Maximum Likelihood Estimation, I additionally assume that;

1) ε_{it} is independently and normally distributed with a mean of 0 and constant variance, σ_ε^2;

2) the vectors of random errors at level-2 (i.e. δ_{0i} and δ_{1i}) are multivariate normal, each with a mean of 0, same variance (σ_0^2 and σ_1^2 respectively) and covariance among the random elements;

3) the errors at level-1 and level-2 are also independent;

4) the predictors at each level are not correlated with the random effects at the other

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level.

We can also represent the same leve-1 model in the composite form:

$$Y_{it} = (\gamma_{00} + \delta_{0i}) + (\gamma_{10} + \delta_{1i})Year_t + \varepsilon_{it} \qquad (15)$$

$$Y_{it} = [\gamma_{00} + \gamma_{10}Year_t] + [\delta_{0i} + \delta_{1i}Year_t + \varepsilon_{it}] \qquad (16)$$

where the equation (13) and (14) are inserted into equation (12) in place of π_{0i} and π_{1i} respectively. As can be seen in equation (16), after the rearrangement of the terms in equation (15), the terms in the first bracket represent a structural part (or *fixed effects*) of the baseline model while those in the second bracket a stochastic part (or *random effects*). Also note that the year variables are centered so that the intercept term represents individual *i*'s expected level of life satisfaction in year 1998.

Next, at the level-2, I pool the information from the level-1 analysis – i.e. variations in the rate of changes in individual life satisfaction (or random coefficients for each individual) – in order to model the inter-individual differences in the level of life satisfaction (or individual coefficients) with covariates. If the goal of the level-1 analysis with equation (12) is to describe the *shape* of each individual's life satisfaction growth (or decline) trajectory over time, the objective of the level-2 analysis is to detect *heterogeneity* in change across individuals as well as to determine the relationship between the shape of each individual's life satisfaction trajectory and a series of independent variables, such as respondent's marital status. Equation (17) below represents the composite model with both the level-1 and level-2 variables and estimates

combined:

$$Y_{it} = \left[\left(\gamma_{00} + \sum_p \gamma_{0p}TVC_{itp} + \sum_q \gamma_{0q}TIC_{iq}\right)\right.$$

$$\left.+ \left(\gamma_{10} + \sum_j \gamma_j MS_{itj}\right)Year_t\right] \tag{17}$$

$$+ [\delta_{0i} + \delta_{1i}Year_t + \varepsilon_{it}],$$

where TVC represents a set of time-varying covariates (e.g. health status) and TIC a set

of time-invariant covariates (e.g. sex), both of which vary across different models.[69] With

this composite model that combines the level-1 and level-2 model, we can not only

investigate the within-individual variations of life satisfaction over time but also model

and explain the inter-individual differences in the trajectories with various covariates,

such as marital status.

Results

First, the result of the multiple linear regression models and the cumulative logit

model are presented and summarized in Table 10.

(Table 10 about here – Results of the MLR and CLM)

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[69] Because it is inconvenient to represent time-varying covariates in the separate hierarchical equations as in equation (12) – (14), only the composite form is presented here. Also note that the TVC terms have a subscript *t* to denote that the TVC's vary across time while TIC's do not.

In Model 1, only the association between the reported level of life satisfaction –

the dependent variable – and individual's marital status – the primary variable of interest

– in year 1998 is estimated without covariates. The results appear somewhat surprising in

that the married report significantly lower level of life satisfaction than the never married

(the reference category, omitted) at the time of the severe economic crisis in 1998.

However, as can be seen in the subsequent model, Model 2, once we control for basic

demographic variables, such as age, sex, and health status, the association observed in

Model 1 changes back to the one well aligned with the existing literature on marriage

premium[70]: Married people reported higher level of life satisfaction than the rest of

groups, including the never married, separated, divorced, and widowed, and the

association stays robust even after accounting for other known covariates such as

education, employment status, household income (Model 3), and marriage length (Model

4-1). In addition, because the outcomes of this series of the multiple linear regression

models are exactly replicated in the cumulative logit model (Model 4-2) both in terms of

direction and significance, the results of the final model with all known covariates

(Model 4-1) are hard to be spurious thus further support the first hypothesis that married

people would report higher level of life satisfaction than the non-married even at the time

of economic crisis. The final models (Model 4-1 and 4-2) also provide the known

significance and direction of covariates as expected: Females, the employed, the highly

educated or those in good health tend to report higher level of life satisfaction than those

who are in the opposite situation.

Next, building on Model 4, the MMC is estimated to test the second hypothesis on

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[70] Among the demographic variables, the age variable is particularly important to switching the sign of the marital status variable because one's marital status is positively correlated with age while the relationship between age and life satisfaction is U-shaped.

the rate of change in the level of life satisfaction by marital status in the period of economic recovery (Model 5 in Table 11[71]):

(Table 11 about here – Results of the MMC)

First, the significance and sign of the main-effect terms, which represent the association between life satisfaction and marital status in year 1998, is the same as in Model 4: Even after accounting for the differential rate of changes by marital status over time with the interaction terms, the relationship between the reported level of life satisfaction and marital status stays as expected at the time of severe economic hardships (year 1998). What is interesting, however, is the differential rates of changes in the level of life satisfaction by marital status represented in the four interaction terms and estimates: Although all people, regardless of their marital status, reported significantly higher level of life satisfaction as the economy recovered from the economic crisis between 1998 and 2001, the rate of change of the married is not as steep as the rest of the groups (0.041 for the married but 0.101, 0.127, and 0.067 for the separated, divorced, and widowed respectively) except for the never married (the reference group, 0.037). However, as can be seen in Figure 8, the reported level of life satisfaction in year 2001 is still highest among the married even if the rate of recuperation from the economic crisis in terms of life satisfaction is faster among the separated and divorced.[72]

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[71] Note that Model 5 builds on Model 4 with the same set of variables plus the interaction terms.

[72] The trajectories of the level of life satisfaction by marital status presented in Figure 8 are estimated from Model 5, holding the rest of variables in the model at its mean.

(Figure 8 about here – Marital Status and Life Satisfaction (1998-2001))

Therefore, although it would be more conclusive if the post-crisis results could be compared to the pre-crisis patterns by marital status[73], the second hypothesis of this study is also supported in that – probably because of the marriage premium already worked protectively at the time of the economic crisis in 1998 – the rate of change in the level of life satisfaction over the period of economic recovery for the married is not as fast as that of the non-married which could not benefit from marriage premium in the first place.

Discussion and Conclusion

It is well known that the married tend to report higher level of life satisfaction than the non-married, attesting to one of the marriage premium on individual's psychological and emotional well-being. Married couples tend to have more financial resources, better physical health, and emotional support from spouse, which in turn improves the general level of life satisfaction (Coombs 1991; Dush, Taylor, and Rhiannon 2008). In this study, I have examined two additional empirical questions regarding the association between one's marital status and life satisfaction in a specific context: 1) if married people would still report higher level of life satisfaction than the non-married even at the time of severe economic hardships, and 2) how the patterns of change in the level of life satisfaction in the following period of economic recovery differ by marital

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[73] The KLIPS began in 1998 right after the 1997 Asian Financial Crisis, thus no data on pre-crisis South Korea.

status.

The results and conclusions drawn from panel data and various statistical methods are not much surprising in that married people actually reported higher level of life satisfaction than the non-married even at the time of severe economic crisis, such as South Korea in the wake of the 1997 Asian Financial Crisis, providing another empirical evidence in favor of the marriage premium on subjective personal well-being. However, the results of the second part of the empirical analysis – the rate of change in the level of life satisfaction during the period of economic recovery differed by marital status – have substantial implications less known in the existing literature: Because married people already enjoy the marriage premium on life satisfaction at the time of economic hardships – or the loss in the level of life satisfaction is smaller than the rest of groups – the rate of recuperation from the loss is also smaller among the married than the non-married (e.g. the separated and divorced) who potentially suffer most at the time of economic crisis and recuperate just as much in the following period of economic recovery. Based on these theoretical and empirical observations, therefore, it seems safe to argue that the marriage premium on the level of life satisfaction remains valid even in the period of substantial economic hardships as well as during regular times.

Nevertheless, because the observed post-crisis patterns by marital status were not able to be compared to the *unobserved pre-crisis patterns* due to the lack of data in this study, the empirical observations and interpretations advanced here remain somewhat tentative to be further tested with different datasets and contexts. Furthermore, it is also necessary to further investigate the *potential mechanisms* that would actually explain the observed differential patterns by marital status in detail: Although I argue that it is the

well-known marriage premium that also works favorably for married people even in the context specified for this study, the concept, marriage premium, is rather ambiguous and potentially imply multiple unknown dimensions of human psychology, physiology, and sociology. If the mechanisms between one's marital status and the patterns of life satisfaction over time could be further explicated in follow-up studies, therefore, the descriptions, observations, and arguments advanced in this study are to be more enhanced accordingly.

Chapter 5

Conclusion: For a Sustainable Socioeconomic Development in the Twenty-First Century

Over the last three decades, the world has witnessed another fundamental institutional shift in the history of capitalist development. In the wake of the series of economic crises in the 1970s, the so-called neoliberalism and socioeconomic restructuring based on its tenets arose as a solution to the problems of stagflation at the time and quickly spread across the globe for following decades thanks to its ideational and practical appeals. South Korea has not been an exception to the worldwide current of the neoliberal globalization and pursued the neoliberal restructuring since the early 1980s, but particularly actively after the 1997 Asian Financial Crisis. As a consequence of the comprehensive neoliberal structural adjustment based on free-market mechanisms, however, South Korea has also experienced a substantial increase in inequality, poverty, and insecurity over the last decade or so.

Against this context of rising inequality and polarization, I have examined the changing contours of various aspects of personal well-being in post-crisis South Korea in order to seek the implications of the post-crisis neoliberal restructuring for the general welfare of the Korean society in particular, and other neoliberal countries in general. Drawing on the decadal experience of South Korea after the 1997 Asian Financial Crisis,

not only were the trajectories of the primary measures of material well-being (i.e. earnings and consumption) investigated over the period, but a subject measure of personal well-being such as one's reported level of life satisfaction was also studied as a complement to the economic aspects of personal welfare.

In particular, in the first substantive chapter of this dissertation research, the association between education and rising earnings inequality in post-crisis South Korea was examined to measure how much of the increase in the post-crisis earnings inequality is due to diverging earnings returns to education. With the statistical results from the Theil index decomposition, I have documented that over 80% of the increase in the post-crisis earnings inequality is due to the increase in the within-education-group inequalities and argued that in order to properly understand the dynamics of earnings inequality in post-crisis South Korea, we need to account for various institutional factors that have changed along with the intensification of the neoliberal reforms over the last decade or so, by which the degree of the association between education and earnings inequality is determined.

In the following empirical chapter, the relationship between family wealth and household consumption was examined over the course of economic crisis and recovery in post-crisis South Korea. The primary goal of the investigation was to see if possession of family wealth has a buffering effect on household consumption over economic crisis, and I have confirmed that the possession of liquid financial assets indeed has the buffer effect on the level of household consumption over the period of economic crisis and this provides another empirical evidence of the "consumption potential" of family wealth realized when indeed in need.

In the last substantive chapter, I explored the association between marital status and the level of life satisfaction at the time of economic crisis as well as during the subsequent period of economic recovery, utilizing the experience of South Korea in the wake of the 1997 Asian Financial Crisis once again. By examining the subjective aspect of personal well-being in relation to marital status in post-crisis South Korea, I not only aimed to evaluate if the "marriage premium" still holds positive on married people's life satisfaction even at the time of severe economic hardships but also investigate if the rate of change in the level of life satisfaction over the period of economic recovery differ by marital status. The results and conclusions drawn from panel data and various statistical methods show that married people actually reported higher level of life satisfaction than the non-married even at the time of severe economic crisis, such as South Korea in the wake of the 1997 Asian Financial Crisis, but the rate of change in the level of life satisfaction for the married over the next four years of economic recovery was not as steep as the non-married, potentially because of the marriage premium that the married people already enjoyed at the time of the economic crisis.

Now it is clear that South Korea has successfully transformed itself from the former dirigiste developmental state to the neoliberal state particularly after the 1997 Asian Financial Crisis and the inevitable social consequences of the on-going institutional shift have been a substantial rise in inequality, poverty, and insecurity, which interact with various aspects of personal well-being examined in this study. If so, what are the implications of the intensive institutional changes that South Korea has experienced over the last decade or so for Koreans living today? Furthermore, given that increasing economic inequality is highly likely to be translated into inequalities in other

dimensions of social life within and across generations (e.g. inequalities in political power), what are the lessons that we can derive from the decades-long experiences of the neoliberal reforms and increasing inequality observed across the globe? Moreover, why do we have to care about increasing inequality and polarization at all; and if so, what can we do to contain them? In the following concluding section, I summarize discussions and findings over this series of issues from the existing literature in search of a more viable form of capitalist development in the twenty-first century than the current mode of neoliberal globalization.

Toward a Sustainable Socioeconomic Development in the Twenty-First Century

In retrospect, the severe economic crisis and the subsequent socioeconomic restructuring that South Korea had to endure at the end of the twentieth century may seem a blessing in disguise – thanks to the wholesale reforms on the economy and institutions implemented upon the 1997 crisis, the deep-seated structural problems from the previous developmental regime were clearly exposed and somewhat effectively addressed in a relatively short period of time. As a result of the opportune combination of the local and global marketization agents greatly aided by the crisis exigencies, South Korea has successfully transformed itself from the old dirigiste developmental state to the neoliberal state, and the government, financial, corporate, and labor sectors of the Korean society have been fully exposed to free-market disciplines in order to secure and enhance South Korea as a site for further capitalist accumulation in the era of global economy. Although the immediate impact of the crisis on the Korean economy and society at the

moment was as disastrous as that of the Great Depression in the 1930s, South Korea

quickly rebounded from the crisis as early as 1999 and has continuously registered stable

growth rates and low unemployment rates ever since. As of 2011 – primarily due to the

successful socioeconomic reforms for the last decade or so – South Korea still stands

high and robust in the world as one of the fifteen largest economies and a member

country of G20.[74]

Given all the positive macroeconomic performances and success stories wrought

by the neoliberal reform in post-crisis South Korea, one may indeed argue that the 1997

Asian Financial Crisis and the subsequent 'opportunities' for the Korean economy to tune

into the new global economic standards were a blessing in disguise. Although none of the

economic indicators under the new developmental regime after the crisis is

commensurate with those of the pre-crisis period under the dirigiste economy, the set of

'creative destruction' that occurred in the wake of the 1997 crisis surely presented South

Korea with another opportunity for further economic development and a chance to ride

the tide of the contemporary neoliberal capitalist accumulation. However, depending on

how the concept of development is defined, the economic development that South Korea

has maintained under the new political economy since the crisis has not been an equal

blessing for all. If we further look into the positive economic indicators, for instance,

despite the stable average post-crisis economic growth, the level of inequality and

poverty has substantially increased, particularly after the crisis, to the unprecedented

level; while the unemployment rate has been maintained below 5% since 1999, which is

low enough to be considered full employment, over 90 percent of all new jobs created

[74] The G20 stands for the Group of Twenty Finance Ministers and Central Bank Governors established in 1999 to bring together systemically important industrialized and developing economies to discuss key issues in the global economy. See www.g20.org for further details.

between 1998 and 2002 after the crisis were non-permanent (IMF 2004). In other words, it was a truly blessing for those at the top of the socioeconomic strata who have disproportionately benefitted from the post-crisis economic growth while from the view point of those at the bottom of the distribution, the observed economic growth since the 1997 crisis seems far-fetched to be real.

That the rising economic tide of post-crisis South Korea did not lift all boats but the select few may appear perplexing to those who know that pre-crisis South Korea under the old developmental state regime was known for its rapid economic growth with relatively equal income distribution. Despite the severely underdeveloped welfare system under the pre-crisis developmental regime, South Korea managed to maintain a low level of income inequality in the midst of the rapid industrialization, and it was natural for many Koreans at the time to equate economic growth with bigger pies for all to take their fair shares. Accordingly, it seems strange to them that the dynamics of the virtuous circle of economic growth and improving welfare for all seem to have abruptly changed in the wake of the 1997 Asian Financial Crisis, and not many of them are willing to believe that the continuously increasing inequality in spite of the stable economic growth for the last decade or so is solely attributable to the economic crisis per se.

What has happened after the crisis? What are the causes that altered the positive association between economic growth and equality before the crisis? As many people argue, is it due to the increasing presence of free market forces and globalization after the crisis? If so, why does economic growth under the new developmental regime have to be associated with increasing inequality unlike the past? If not, what factors other than free-market accounts could explain the observed discontinuity between pre- and post-crisis

South Korea?

If we look around the world for potential answers to the questions, the seemingly perplexing relationship between economic growth and inequality observed in post-crisis South Korea is not that enigmatic at all: All countries that implemented the so-called neoliberal reforms before South Korea have observed an equally massive increase in income inequality and polarization regardless of their macroeconomic performance (e.g. the U.S. and the U.K. since 1980s). In effect, the increase in inequality, poverty, and insecurity has actually been an integral part of the neoliberal economic regime, being the norm rather than the exception: Although the rationale behind the adoption of the new dominant political economy somewhat varies by countries, the institutional changes that accompanied the neoliberal reform (e.g. deregulation from the state, privatization of the public enterprise, and liberalization of the trade) have equally affected the dynamics of economic growth and inequality across the countries in the same direction, leading into increasing inequality and insecurity (Bourdieu 1998; Campbell and Pedersen 2001; Duménil and Lévy 2004a; Harvey 2005; Martin and Schumann 1997; Saad-Filho and Johnston 2005; Steger and Roy 2010). In this sense, it ought not be too surprising that the post-crisis economic growth in South Korea has not been translated into equal economic gains across social strata. As the institutional/structural environments that govern growth and inequality have been drastically changed for the neoliberal developmental regime since the 1997 Asian Financial Crisis, so have the living conditions and well-being of the people within the changing institutions, leaving substantial portion of the Korean population behind the curtain of the new stage of the economic development. In other words, what has changed the dynamics between growth and inequality is neither the

neutral market forces nor globalization – which have been constant throughout the history of capitalist development – but the institutional/structural changes that have allowed the disproportionate economic gains of the upper socioeconomic strata at the expense of the bottom.

Then the next provocative but legitimate set of questions: Why do we have to care about increasing inequality when the economy as a whole grows anyway? Aren't people just getting their fair share in the capitalist economy according to their work and effort, and this logic of market justice is only to be enhanced under the new liberal economy created by the neoliberal reforms? Moreover, wouldn't market function best when not interrupted by the state regulations, so we need to purse even freer market for more efficient allocation of the limited goods and resources? The responses to these questions would ultimately become ideological and political rather than purely economic, but it is necessary to examine each claim on the basis of empirical evidences in order to move forward, particularly when the world is going through another critical phase of capitalist development after the recent 2008 global financial crisis.

First of all, the reason why we need to care about increasing inequality is that there exist individuals who disproportionately suffer from increasing inequality under the current neoliberal developmental regime. As clearly shown in the experience of the U.S. and the U.K. since the 1980s and South Korea after the 1997 crisis, it is an indisputable empirical fact that the level of income at the bottom of the distribution has been stagnant at best while those at the top of the distribution have observed substantial income growth over the period of the neoliberal restructuring (Duménil and Lévy 2004b; Morris and Western 1999; Piketty and Saez 2003; Piketty and Saez 2006; Smeeding 2005). In

addition, both the quality and quantity of employment conditions for those at the bottom of the socioeconomic strata have been deteriorating, and the disproportionate impact of the changing employment conditions, in general, negatively interacts with the worsening income prospect on their welfare. The employment decline hit individuals and households at the low end of the income distribution harder than those at the high end, and this accounts for the bulk of the increase in market inequality in industrialized countries (Kenworthy 2004) . Furthermore, as the income distribution and employment conditions worsen for those at the bottom of the distribution, both absolute and relative poverty rates substantially increase. Although it is possible to observe both increasing inequality and improving welfare for all social groups in theory, what has been empirically observed in reality across the countries is the stagnant or deteriorating material conditions for the bottom and the runaway increase at the top (Atkinson 2003; Blau and Kahn 2002; Piketty and Saez 2003).

Second, the changing material conditions for individuals stated above also hold substantial implications for the broader economy and society as a whole. As opposed to the claims made by the proponents of neoliberalism, increasing inequality does not facilitate but hinder economic growth (Stiglitz 2000). For instance, increasing inequality among individuals holds down the relative purchasing power of the lower-income strata and weakens aggregate consumption, which in turn lowers the expected profits on new investment. As the consumption base and the prospect for profits and new investment degenerate, the entire economy is likely to slow down unless some counteractive measures are implemented. Since the economic recession differentially affects the welfare of workers as shown above, the vicious circle that begins with increasing

inequality is to further worsen the distribution of goods and services through its adverse impact on the prospect of economic growth. Although many economists argue that there is a tradeoff between growth and equity, what we know from various empirical evidences is that overall inequality is, if anything, harmful to growth, and countries actually can increase their incomes with relatively little change in inequality (Furman and Stiglitz 1999). Furthermore, the adverse impact of increasing inequality is not limited to the economic sphere: The worsening distribution of income and wealth is also highly associated with negative social and political consequences. Numerous sociological studies on inequality have consistently found that income inequality, low income, and a large share of the population living in poverty all lead to greater social and political instability, including increasing disparities in wealth, education, health, and civil/political participations (Coburn 2000; Neckerman and Torche 2007; Wilkinson and Pickett 2009). Moreover, since the observed trend of increasing inequality and insecurity is more of a permanent/structural rather than transitory feature of the current mode of capitalist accumulation, it is highly likely that deteriorating living standards for current generations due to increasing inequality entail shrinking life-time opportunities and socioeconomic mobility for generations to come. With the intra-generational socioeconomic gaps translated into the inter-generational inequality, the trend of increasing inequality and its adverse impacts is more likely to be entrenched in society, and this would in turn have detrimental effects on almost any aspect of the socioeconomic well-being of individuals as well as the society as a whole, destroying social fabrics and promoting social divisions. Given that increasing inequality is highly likely to perpetuate the conditions of inequality across economic, social, and political domains, therefore, it is critical to address the

problems of increasing inequality if we care about its consequences for human well-being and its broader consequences for the nature of society.

Lastly, as opposed to the claims made by those who believe in the supremacy of markets in the distribution of goods and services, the market forces that govern inequality, growth, and the well-being of individuals and the society, are neither natural nor neutral. As many prominent scholars having worked on the nature of markets and capitalism argue, there is no such a thing as a free market (Blyth 2002; Hall and Soskice 2001; Krugman 2009a; Polanyi [1944] 2001). Markets are fundamentally embedded in a particular set of laws and institutions at the particular historical juncture of time and space, thus the parameters of the 'free' markets are essentially delineated by the collective decisions of people, not by the invisible hand of markets. Accordingly, the distributions of goods and services generated by the market supply and demand are also governed by the social and political institutions, and the resultant inequality in this respect is also a socio-political product of the collective institutional designs rather than of the natural market forces (Campbell and Pedersen 2001; Fischer, Hout, Jankowski, Lucas, Swidler, and Voss 1996; Granovetter 1985; Levy and Temin 2007). In the similar vein, markets would not function best when not regulated by the state: As the proponents of market fundamentalist also agree, the role of state in the creation of the environments conducive to market transactions is more than essential, and it is impossible to expect a functioning market without the functional state (Frieden 2006; Stiglitz 2003). Given the embeddedness of markets in institutions and the critical role played by the state, therefore, it is not realistic to assume that workers are getting their fair share solely due to their work and effort even in the free-market capitalist economy, but more practically, the

various socioeconomic problems that we have observed over the last three decades are only to be worsened in the future if the logic of 'market justice' is to be further enhanced under the current neoliberal political economy.

If it is clear that increasing economic inequality and insecurity under the current mode of neoliberal capitalist globalization is bad for individuals as well as for the broader economy and society, and if it is not absolutely necessary to compromise between growth and inequality, what can we do to effectively address the problems at the same time as devising a new economic system in which a more sustainable form of capitalist development is feasible? First of all, it is important to realize that the problems of increasing inequality, insecurity, and poverty that we have observed for the last three decades is neither a natural nor transitory phenomenon, but a *structural* one integral to the current mode of capitalist development. As I have consistently argued throughout this thesis, it is the series of the institutional/policy changes based on neoliberalism that have increased the level of income inequality and economic insecurity across the countries that have adopted the neoliberal reform for further capitalist accumulation. Given that one of the critical dimensions of the neoliberalism is individualization of social/structural problems – which emphasizes individual's free choice as well as individualized responsibility for all the outcomes of the free choice – it is crucial not to forget that the observed consequences of the neoliberal restructuring are as much structural as individual at the least.

Next, once we realize that the problems associated with the neoliberal restructuring is structural, we ought to think about potential solutions to the problems at the structural level as well since structural problems require structural solutions. In other

words, because the increasing income inequality and economic insecurity are the results of the policy/institutional changes premised on neoliberal principals, it should also be possible to fix the problems with a counteractive set of changes in policy and institutions that promote equality over inequality and safety nets over insecurity. Then what are the policies and institutions with which we can achieve this goal? At the technical level, the answers are simple: Since the increasing inequality under the current model of capitalist regime is primarily due to the sky-rocketing upper-class income, stagnant or decreasing middle-class income, and decreasing lower-class income, we can implement both ex-ante and ex-post policy measures that would 1) restrain the runaway income at the top of the distribution (e.g. tax policy and norms) and 2) boosts income at the bottom of the distribution (e.g. minimum wage, unionization, and social/welfare transfers). In addition to these measures for improving equality of outcome, the government can also take a more proactive role to improve equality of opportunity by investing in education, health, housing, and child development. What is more difficult, however, is to change the current conservative political climate in which generating the political will to support and implement those liberal/progressive socioeconomic policies are not easy. For several decades after Hayek (1994), the proponents of free-market capitalism have consistently – and somewhat convincingly – argued that unfettered free-market forces are the best mechanisms for efficient allocations of limited goods and services, and this rather theoretical assertion has resonated well with economic and political elites up to the recent global financial crisis in 2008. Under these circumstances, can we possibly lessen the momentum of neoliberalism while creating a new momentum for more sustainable form of socioeconomic development?

Yes, we can. As of 2011, the momentum of the neoliberal globalization has been somewhat halted by the recent global financial crisis in 2008. The countries that have adopted the neoliberal reforms have begun to realize the problematic nature of the neoliberal capitalist development, and the leading economies have been working hard together to solve the problems of inequality and insecurity innate to the current mode of neoliberal globalization, realizing that they are the critical sources of current economic crisis not the inevitable consequences of the natural market forces for growth (Rajan 2010). As always has been the case in the history of capitalist development since its inception, a major economic crisis presents both risks and opportunities for creative destruction, and depending on how we capitalize on the window of opportunity created by the current global economic crisis, the next phase of capitalist development could be a more economically viable and socially sustainable form than the current mode of neoliberal development. In the same vein, the managers of South Korea should also realize that the most acute socioeconomic problem that South Korea as a whole has to address at this moment is the problems of increasing inequality and widening gaps across socioeconomic strata. The gaps and inequalities in material conditions would inevitably lead to inequalities in other socio-political dimensions, and the inequalities observed in current generations will definitely be translated into further inequalities for generations to come. If South Korea aims to continue to write the success stories that it has written for the last several decades, therefore, not only do they have to keep the best part of market dynamics – as they have already worked hard enough after the 1997 AFC – but also make extra efforts to mend the weakest links of the capitalist development (i.e. systemic inequality and instability) through progressive policies and institutional changes. Once

again, markets, capitalism, and inequality are all the creatures that we have collectively

designed according to our needs and desires. If our needs and desires are not satiated with

– or even threatened by – the current social, economic, and political systems, we have a

natural right and will to change accordingly.

TABLES

Table 1. Indicators of Market Openness of South Korea (1990-2008)

Year	Direct Investment in Korea (Bill. $)	Direct Investment Abroad (Bill. $)	Imports (Bill. $)	Exports (Bill. $)	Foreign Stock Ownership (%)
1990	0.80	1.07	69.84	65.02	-
1991	1.40	1.31	81.52	71.87	-
1992	0.89	1.35	81.78	76.63	-
1993	1.04	1.45	83.80	82.24	-
1994	1.32	2.37	102.35	96.01	-
1995	1.97	3.21	135.12	125.06	-
1996	3.21	4.50	150.34	129.72	12.97
1997	6.97	3.78	144.62	136.16	14.59
1998	8.86	4.76	93.28	132.31	18.6
1999	15.54	3.35	119.75	143.69	21.91
2000	15.26	5.18	160.48	172.27	26.98
2001	11.29	5.25	141.10	150.44	32.17
2002	9.10	3.96	152.13	162.47	32.79
2003	6.47	4.66	178.83	193.82	37.67
2004	12.80	6.39	224.46	253.84	40.10
2005	11.57	6.95	261.24	284.42	37.17
2006	11.25	11.48	309.38	325.46	35.16
2007	10.51	21.09	356.85	371.49	30.94
2008	11.71	21.63	435.27	422.01	27.25

Sources: Bank of Korea (http://ecos.bok.or.kr/); Korea Exchange (http://eng.krx.co.kr/index.html/)

Table 2. Principle Economic Indicators of South Korea (1990-2008)

Year	Real GDP (annual % change)	GNI per capita	Stock price index (annual average)	Exchange rate (won/$)	Unemployment rate (%)
1990	9.2	6,147	746	716.7	2.4
1991	9.4	7,105	658	759.5	2.4
1992	5.9	7,527	585.7	786.9	2.5
1993	6.1	8,177	728.4	807.2	2.9
1994	8.5	9,459	965.3	788.5	2.5
1995	9.2	11,432	934.9	775.7	2.1
1996	7.0	12,197	833.4	844.9	2.0
1997	4.7	11,176	654.5	1,695.00	2.6
1998	-6.9	7,355	406.07	1,204.00	7.0
1999	9.5	9,438	806.8	1,138.00	6.3
2000	8.5	11,292	734.22	1,264.50	4.1
2001	4.0	10,631	572.8	1,313.50	3.8
2002	7.2	12,100	757	1,186.20	3.1
2003	2.8	13,460	679.8	1,192.60	3.4
2004	4.6	15,082	832.9	1,035.10	3.5
2005	4.0	17,531	1,073.60	1,011.60	3.5
2006	5.2	19,722	1,352.22	929.8	3.3
2007	5.1	21,695	1,712.46	936.1	3.0
2008	2.2	19,231	1,529.49	1,259.50	3.0

Source: Bank of Korea (http://ecos.bok.or.kr/)

Table 3. Variables and Descriptive Statistics by Year (1997-2006)

| Year | Average monthly earnings (in 10,000 Korean Won) | | Education (%) | | | Sample Size |
	Mean	SD	High-	2-3yr	4yr+	
1997	117.48	67.33	66.08	8.01	25.91	3,370
1998	109.26	64.20	68.35	7.65	24.00	3,188
1999	116.13	65.51	69.67	7.68	22.65	2,892
2000	128.94	82.33	69.15	7.96	22.89	2,840
2001	140.13	85.96	69.80	7.71	22.50	2,907
2002	154.61	98.62	67.64	8.05	24.31	2,933
2003	169.37	111.63	67.06	7.80	25.14	2,872
2004	177.47	116.88	66.19	8.81	25.01	2,703
2005	188.96	149.52	66.84	8.84	24.32	2,738
2006	200.94	214.55	66.74	8.67	24.59	2,712
Total	148.71	116.66	67.75	8.10	24.15	29,155

Table 4. Theil Index Decomposition by Education (1997-2006)

Year	Total	Within	Between
1997	0.151	0.121	0.030
1998	0.159	0.127	0.032
1999	0.148	0.120	0.029
2000	0.167	0.131	0.036
2001	0.169	0.135	0.035
2002	0.183	0.139	0.043
2003	0.195	0.142	0.052
2004	0.196	0.144	0.052
2005	0.228	0.171	0.057
2006	0.280	0.226	0.054

Table 5. Within-Group Inequality Trends by Education (1997-2006)

Year	High school & below	2 to 3 year college	University & above
1997	0.135	0.097	0.106
1998	0.140	0.085	0.115
1999	0.135	0.086	0.102
2000	0.146	0.081	0.119
2001	0.153	0.094	0.114
2002	0.168	0.098	0.107
2003	0.165	0.104	0.121
2004	0.173	0.106	0.117
2005	0.197	0.118	0.152
2006	0.284	0.128	0.175

Table 6. Change in Income and Consumption in 1998

Status	Income	Consumption
Increased	1.36	6.37
Same	24.66	37.07
Decreased	73.98	56.56
Total	100	100

Note: 4991 households surveyed in 1998 (KLIPS)

Table 7. Variables and Descriptive Statistics by Year (1997-2006; Continued on the next page)

Variables	1997	1998	1999	2000	2001
Logged household average monthly expenses					
Mean	4.382	4.513	4.564	4.650	4.805
SD	0.719	0.575	0.608	0.588	0.595
Possession of Liquid Financial Assets (%)	17.4	23.6	16.5	15.7	18.1
Total Household Income (in 100,000 Korean Won)					
Mean	13.103	14.999	16.220	17.569	20.601
SD	11.442	10.728	11.732	13.656	15.519
Number of Household Members					
Mean	3.495	3.671	3.630	3.586	3.528
SD	1.360	1.280	1.277	1.272	1.255
Home Ownership (%)	55.9	57.5	56.2	57.6	58.4
Average Monthly Savings (in 100,000 Korean Won)					
Mean	3.328	2.771	3.204	3.847	4.645
SD	5.637	4.229	5.328	5.745	6.255
Possession of Financial Debt (%)	41.8	38.5	36.7	40.4	41.1
Sample size (household-year observations)	4,865	3,835	3,653	3,555	3,700

Table 7 (Continued)

Variables	2002	2003	2004	2005	2006	Total
Logged household average monthly expenses						
Mean	5.014	5.112	5.139	5.170	5.244	4.823
SD	0.535	0.514	0.519	0.535	0.532	0.660
Possession of Liquid Financial Assets (%)	20.4	19.0	23.5	28.9	30.4	21.1
Total Household Income (in 100,000 Korean Won)						
Mean	25.120	27.447	28.089	29.200	30.723	21.578
SD	16.679	19.530	20.188	20.722	20.279	17.315
Number of Household Members						
Mean	3.587	3.523	3.458	3.403	3.351	3.525
SD	1.189	1.169	1.198	1.215	1.211	1.255
Home Ownership (%)	61.4	61.6	61.8	61.4	60.7	59.0
Average Monthly Savings (in 100,000 Korean Won)						
Mean	6.356	6.732	6.490	6.680	7.512	4.972
SD	7.786	10.372	7.076	7.742	12.675	7.677
Possession of Financial Debt (%)	44.3	45.0	43.6	47.3	47.2	42.4
Sample size (household-year observations)	2,860	2,972	3,163	3,282	3,358	35,243

Table 8. Results of the Multilevel Models for Change in Household Monthly Living Expenses (1997-2006)

		Model 1		Model 2		Model 3		Model 4	
Intercept (Year 97)		4.3244	***	4.313	***	3.5828	***	3.4691	***
		(0.0088)		(0.0088)		(0.011)		(0.0125)	
Linear spline of year									
	1997-2001	0.1036	***	0.1041	***	0.0868	***	0.1161	***
		(0.0021)		(0.0021)		(0.0019)		(0.003)	
	2001-2006	0.0894	***	0.0877	***	0.0680	***	0.0803	***
		(0.0016)		(0.0016)		(0.0014)		(0.0026)	
Possession of liquid financial assets				0.0619	***	0.0590	***	0.0791	***
				(0.0053)		(0.0049)		(0.0114)	
Total hh income						0.0116	***	0.0257	***
						(0.0002)		(0.0005)	
Number of hh members						0.1649	***	0.1610	***
						(0.0026)		(0.0026)	
Home ownership						0.0609	***	0.0629	***
						(0.0058)		(0.0057)	
Savings						-0.0001		-0.0145	***
						(0.0003)		(0.0011)	
Financial Debt						0.0114	**	-0.0472	***
						(0.0044)		(0.0095)	
Liquid assets * Year spline									
	1997-2001							-0.0070	**
								(0.0041)	
	2001-2006							0.0031	
								(0.0031)	
Total hh income * Year spline									
	1997-2001							0.0037	***
								(0.0002)	
	2001-2006							0.0003	***
								(0.0001)	
Savings * Year spline									
	1997-2001							0.0042	***
								(0.0003)	
	2001-2006							-0.0003	†
								(0.0002)	
Debt * Year spline									
	1997-2001							0.0188	***
								(0.0034)	
	2001-2006							0.0002	
								(0.0027)	

† p≤0.10; * p≤0.05; ** p≤0.01; *** p≤0.001 (two-tailed test)

Table 9. Variables and Descriptive Statistics by Year (1998-2001)

Variables	1998	1999	2000	2001	Total
Life Satisfaction					
Mean	2.89	2.95	3.06	3.08	2.99
SD	0.90	0.80	0.67	0.65	0.77
Marital Status (%)					
Never Married	28.37	27.82	28.50	29.13	28.44
Married	63.20	62.71	62.45	61.76	62.59
Separated	0.95	0.65	0.50	0.52	0.67
Divorced	1.03	1.26	1.21	1.17	1.16
Widowed	6.46	7.56	7.33	7.41	7.14
Age					
Mean	39.77	40.71	41.30	41.84	40.84
SD	16.20	16.60	16.69	16.93	16.60
Female (%)	51.00	52.00	51.87	51.96	51.79
Health					
Mean	3.84	3.85	3.80	3.39	3.72
SD	1.00	1.02	0.96	0.94	1.00
Education (%)					
High school or below	74.74	75.30	75.20	73.23	74.59
Junior college	7.56	7.26	7.57	8.22	7.65
University or above	17.70	17.44	17.24	18.55	17.75
Nonemployed (%)	52.00	47.63	48.03	47.48	48.81
Household income/month (in 100,000 Korean Won)					
Mean	14.91	16.33	17.46	20.99	17.31
SD	11.93	13.56	15.71	18.47	15.15
Marriage length					
Mean	15.76	16.69	16.62	16.65	16.40
SD	16.34	16.90	17.02	17.32	16.88
Sample (person-year obs.)	11265	9732	8999	9577	39573

Table 10. Results of the Multiple Linear Regression Model and Cumulative Logit Model for Year 1998

	Multiple Linear Regression								Cumulative Logit	
	Model 1		Model 2		Model 3		Model 4-1		Model 4-2	
Marital Status										
Married	-0.132	***	0.216	***	0.215	***	0.203	***	0.450	***
	(0.019)		(0.033)		(0.032)		(0.032)		(0.072)	
Separated	-0.689	***	-0.263	**	-0.158	*	-0.173		-0.306	
	(0.089)		(0.093)		(0.089)		(0.089)		(0.192)	
Divorced	-0.769	***	-0.329	***	-0.213	**	-0.228	**	-0.463	**
	(0.086)		(0.089)		(0.086)		(0.086)		(0.187)	
Widowed	-0.395	***	0.053		0.062		0.065		0.157	
	(0.037)		(0.052)		(0.050)		(0.051)		(0.112)	
Age (centered at 40)			-0.009	***	-0.008	***	-0.011	***	-0.023	***
			(0.001)		(0.001)		(0.002)		(0.005)	
Age^2			0.0004	***	0.0005	***	0.0006	***	0.0013	***
			(0.000)		(0.000)		(0.000)		(0.001)	
Female			-0.010		0.027		0.023		0.051	
			(0.017)		(0.017)		(0.018)		(0.041)	
Health			0.161	***	0.127	***	0.127	***	0.283	***
			(0.009)		(0.009)		(0.009)		(0.021)	
Education										
Junior College					0.122	***	0.137	***	0.299	***
					(0.031)		(0.032)		(0.071)	
Univ. or above					0.229	***	0.243	***	0.519	***
					(0.023)		(0.024)		(0.053)	
Nonemployed					-0.068	***	-0.075	***	-0.149	***
					(0.019)		(0.019)		(0.042)	
Household income					0.001	***	0.001	***	0.003	***
					(0.000)		(0.000)		(0.000)	
Marriage Length							0.008	**	0.018	**
							(0.003)		(0.007)	
Marriage $Length^2$							-0.0001	*	-0.0003	*
							(0.000)		(0.000)	
Constant	3.016	***	2.042	***	1.935	***	1.866	***		
	(0.016)		(0.049)		(0.054)		(0.061)			
Sample Size				11265					11265	

* p≤0.05; ** p≤0.01; *** p≤0.001 (two-tailed test)

Table 11. Results of the Multilevel Model for Change in the Level of Life Satisfaction (1998-2001)

	Model 5	
Year (1998-2001)	0.037	***
	(0.006)	
Marital status		
Married	0.169	***
	(0.022)	
Separated	-0.239	***
	(0.072)	
Divorced	-0.303	***
	(0.069)	
Widowed	0.008	
	(0.036)	
(abridged)		
Marital status * Year		
Married	0.041	***
	(0.007)	
Separated	0.101	***
	(0.037)	
Divorced	0.127	***
	(0.029)	
Widowed	0.067	***
	(0.013)	
(abridged)		

* p≤0.05; ** p≤0.01; *** p≤0.001 (two-tailed test)

FIGURES

Figure 1. Trends in Income Inequality of South Korea (1990-2008)
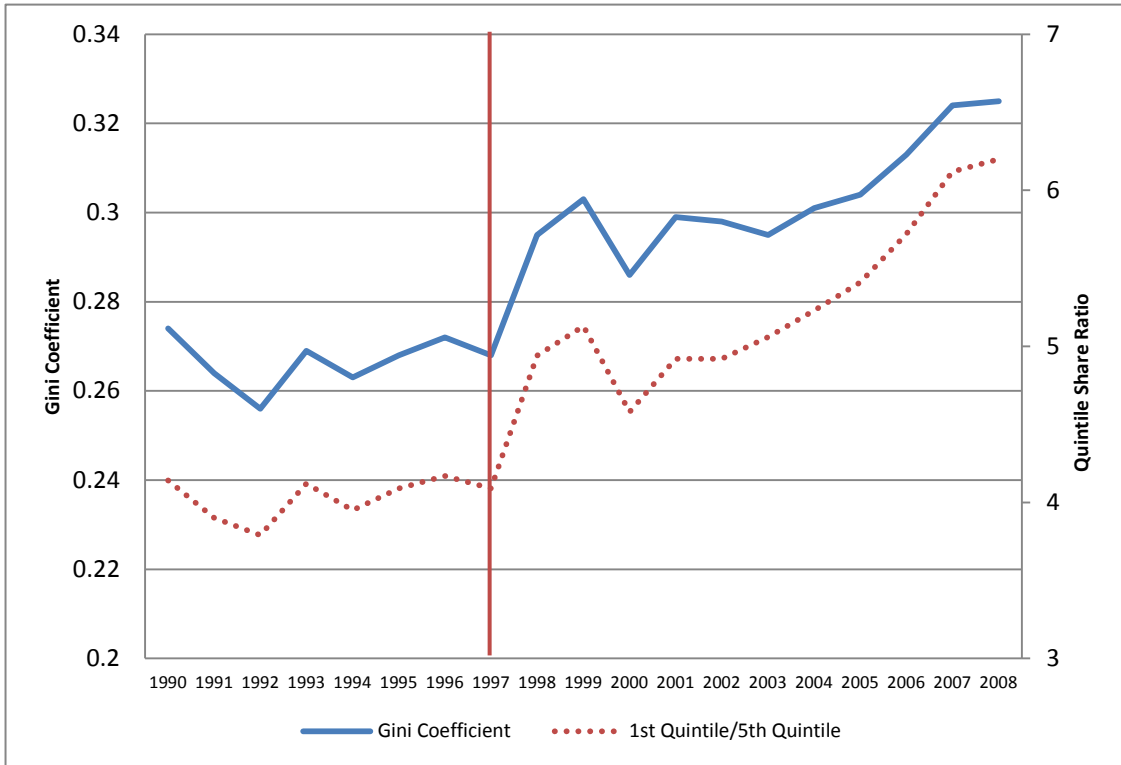
Figure 2. Relative and Absolute Poverty Rates of South Korea (1990-2008)
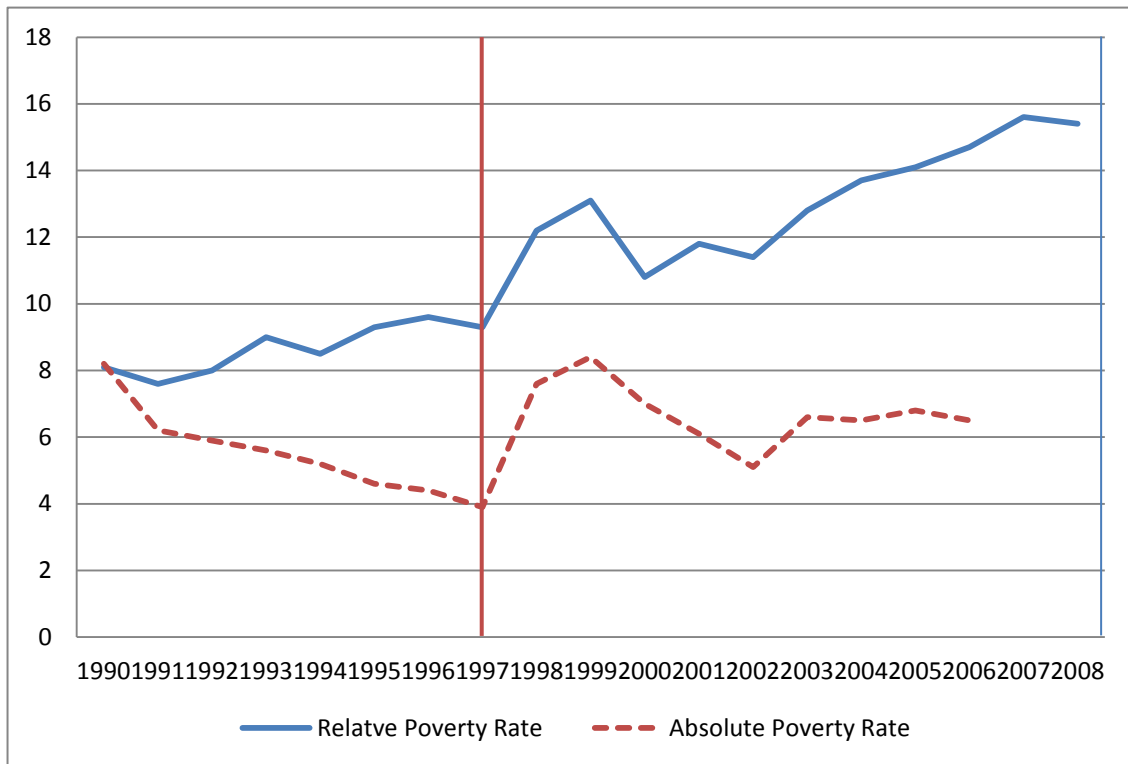
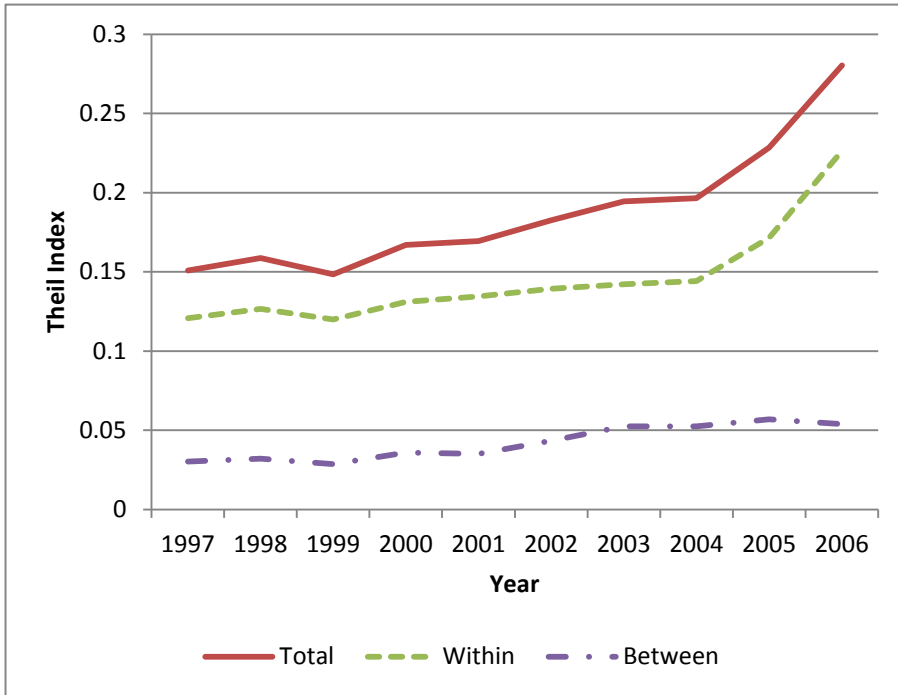**Figure 3**. Earnings Trends by Education (1990-2008; KOSIS)
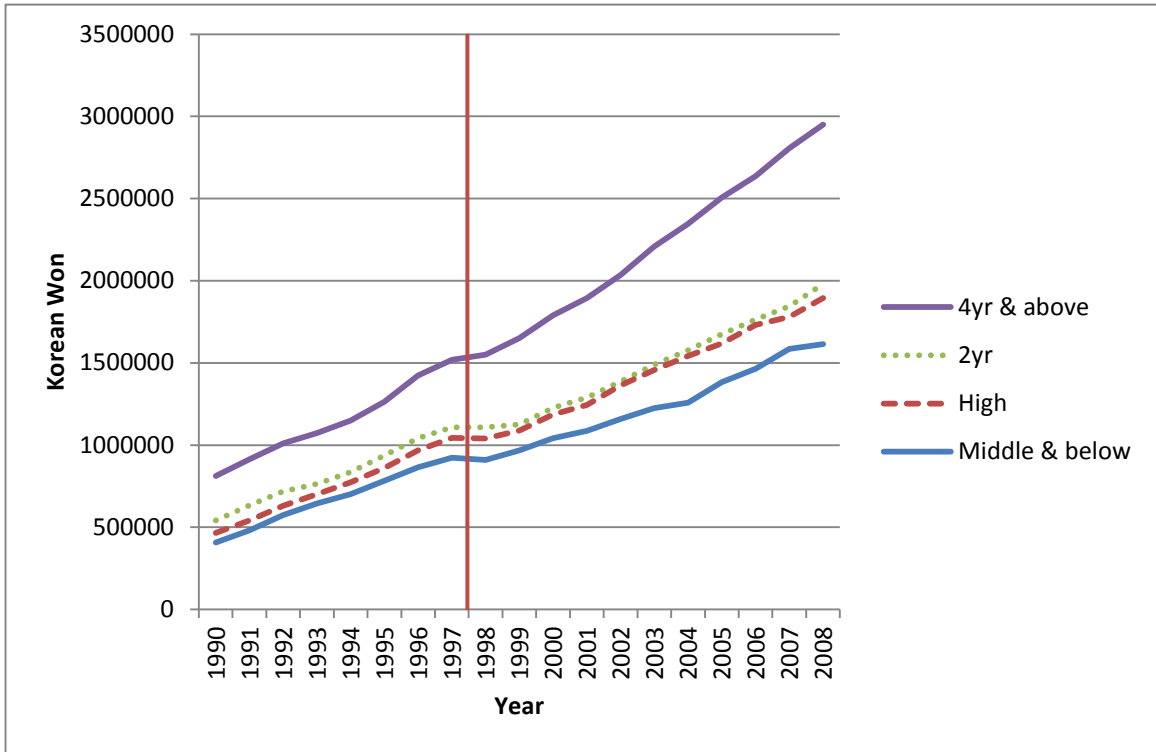
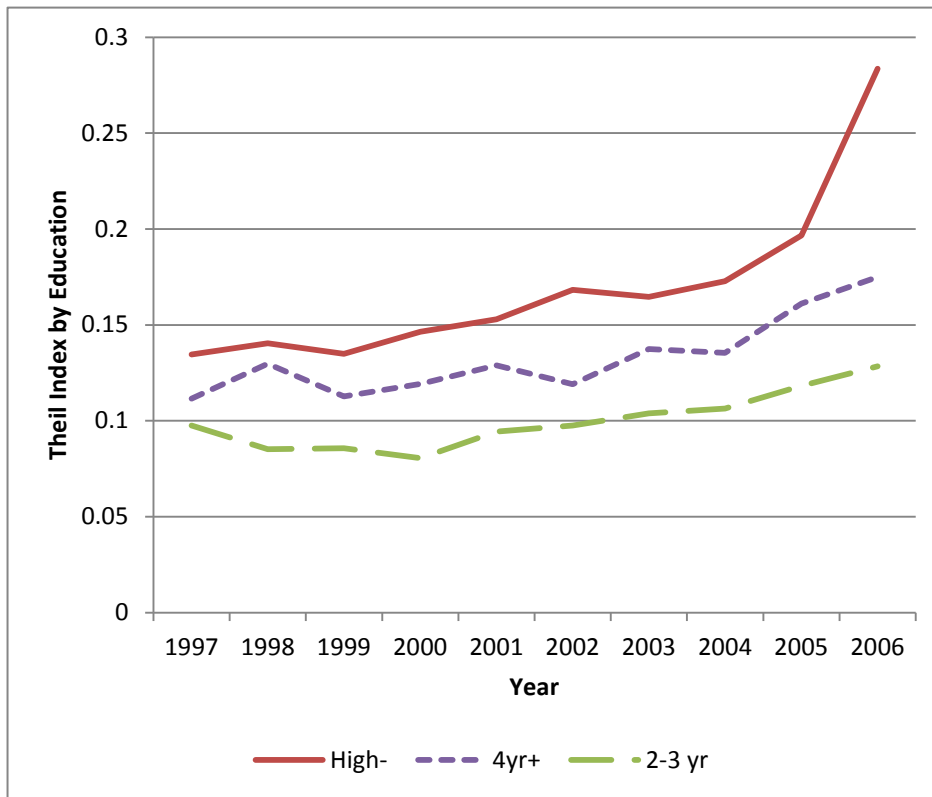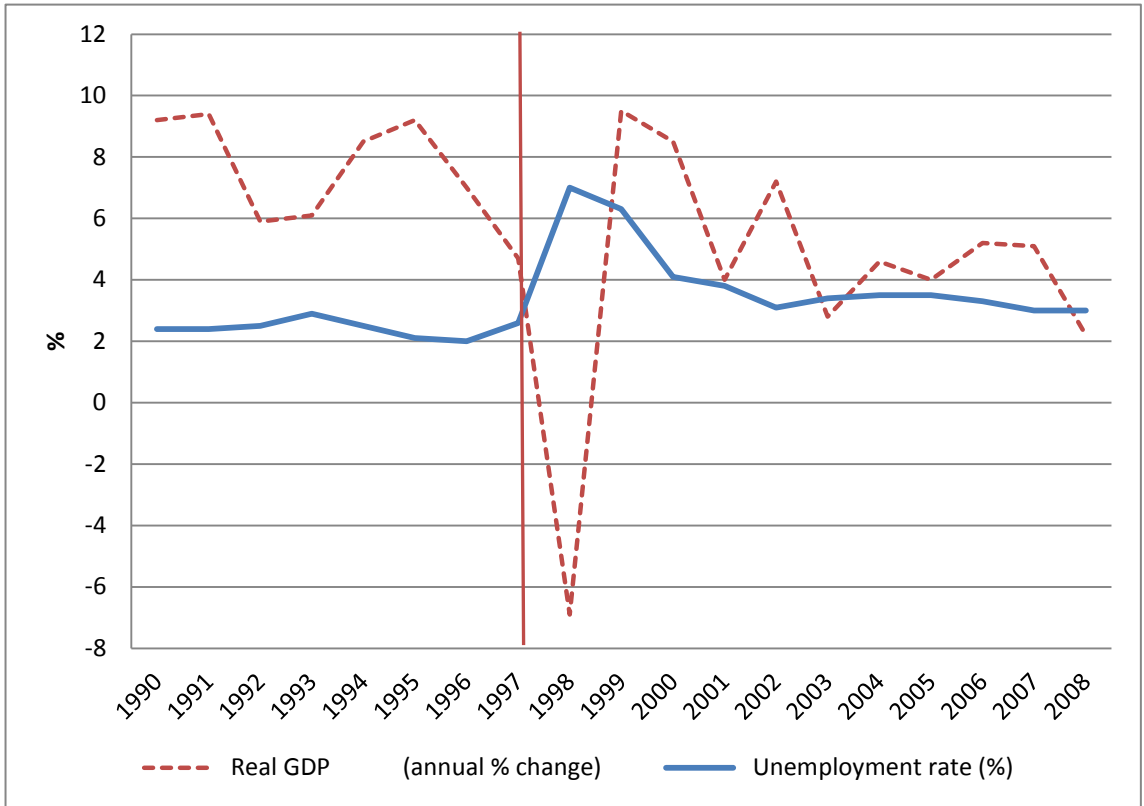**Figure 4**. Earnings Trends by Education (1997-2006; KLIPS)
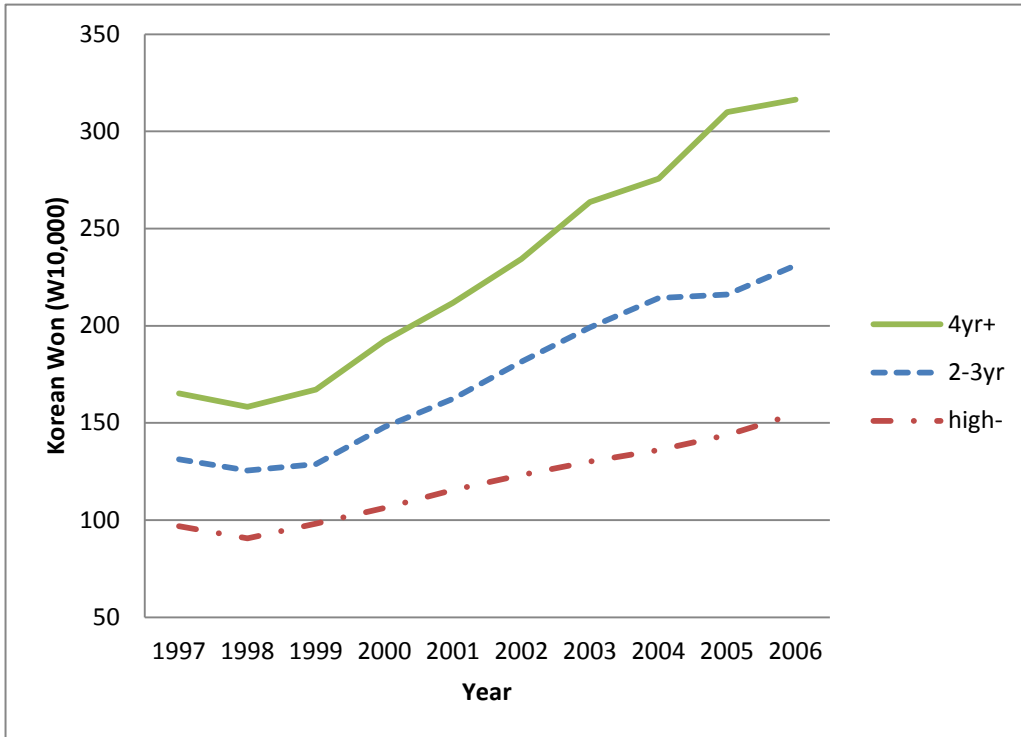
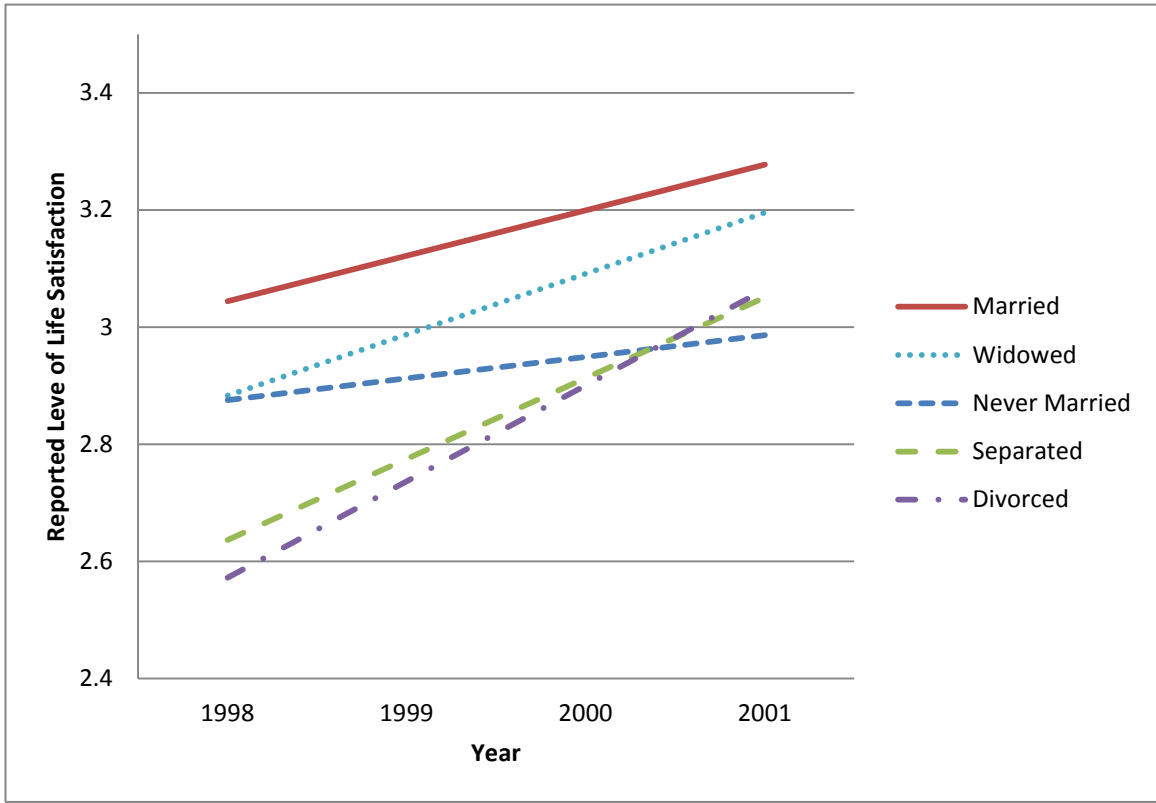**Figure 5**. Theil Index Decomposition by Education (1997-2006)

Figure 6. Within-Group Inequality Trends by Education (1997-2006; Theil Index)

Figure 7. Macroeconomic Performance of South Korea (1990-2008)

Figure 8. Marital Status and Life Satisfaction (1998-2001; Estimated)

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