

KDI SCHOOL

WORKING PAPER SERIES

KDI 국제정책대학원

KDI School of Public Policy and Management

International Trade and Within-sector Wage Inequality: the Case of South Korea

Siwook Lee
KDI School of Public Policy and Management

October, 2016
Working Paper 16-14

KDI 국제정책대학원
KDI School of Public Policy and Management

This paper can be downloaded without charge at:
KDI School of Public Policy and Management Working Paper Series Index:
<http://www.kdischool.ac.kr/new/eng/faculty/working.jsp>
The Social Science Network Electronic Paper Collection:
<http://ssrn.com/abstract=2850785>

International Trade and Within-sector Wage Inequality: the Case of South Korea

Siwook Lee*¹

This paper studies which factors contributed to the changes in wage inequality in Korean manufacturing over the last three decades. By adopting Akerman et al. (2013)'s decomposition method, we examine the relative importance of within-sector and between-sector wage variations in Korean manufacturing over the period of 1980-2012. Our analytic results confirm that within-sector wage variation explains the lion's share of overall wage inequality. Taking such finding into account, we estimate the impacts of international trade, skilled-biased technological change and labor market conditions on within-sector wage inequality in Korea. Our estimation results suggest that there was a structural change in determinants of wage inequality before and after the mid-1990s. The influence of international trade mainly through heightened import competition on wage dispersion became relatively more conspicuous over the last two decades.

JEL Classification: F14, F16, J33, O33

Keywords: Wage Inequality, International Trade, FDI, Technological Change,
Skill-intensity

¹ Associate Professor, KDI School of Public Policy and Management, 263 Namsejong-ro, Sejong-si 30149, Korea, E-mail: siwookl@kdischool.ac.kr

I. Introduction

Globalization and rising wage inequality are nowadays buzzwords in the international community. Since the second half of the 20th century an accelerated pace of globalization has been witnessed, which substantially altered the competitive landscape among nations and firms. At the same time, rising wage inequality has recently become a rather common feature for many countries in the world, regardless of their individual development stage. This coincidence has led to extensive research efforts on the relationship between globalization and wage inequality.

Among various facets of globalization, international trade has taken center stage in the economics literature that studied the impact of globalization on labor market outcomes. Neoclassical trade theory, such as the Heckscher-Ohlin model and the specific-factors models, has served for a long time as a core analytic framework to examine the distributional consequences of international trade.

According to the standard Heckscher-Ohlin model, for example, each country tends to export the goods that use intensively the factor of production it has in abundance, and the abundant factor used intensively in the production of those goods gains from trade, while the scarce factor loses from trade. Therefore if skilled-labor is an abundant factor, then cross-border trade would increase the real earnings of skilled-labor and decrease those of unskilled-labor, given an increase in the relative price of skilled-intensive goods (Stolper-Samuelson theorem). Consequently, the relative wage of skilled labor to unskilled counterpart tends to increase as a result of international trade.

While neoclassical trade theory remains impeccable from a theoretical point of view, there has been growing concern that it conflicts with various stylized facts regarding the trade-inequality nexus. One of the most puzzling facts is widespread evidence of increasing within-industry wage inequality. Under an assumption of free factor mobility across industries, neoclassical trade theory emphasizes the trade-induced wage inequality between occupations and industries. However, the recent studies suggest that much of overall wage inequality stems from within-sector and/or within-occupation wage variations, and even from wage differentials among workers with similar observable characteristics (Lawrence and Slaughter; 1993, Akerman et al; 2013, Helpman et al.; 2016).²

² Given these observations, the current literature proposes a number of new theoretical frameworks linking international trade with wage dispersion within sectors and occupations, related to firm heterogeneity, task trade and incomplete contractions. Please refer to Harrison et al

Another puzzling fact that challenges neoclassical trade theory is that the rise in wage inequality has been observed in both developed and developing economies. The Heckscher-Ohlin model predicts that the relative wage of skilled-labor to unskilled-labor would fall in less developed countries. In reality, however, the evolution patterns of inequality within developing countries as they open up to trade are at odds with the Heckscher-Ohlin predictions (Berman et al.; 1998, Goldberg and Pacvnik, 2007; Feenstra, 2008).

Finally, many studies, especially back in the mid-1990s, found that the impact of international trade on wage inequality could be relatively minor. Feenstra and Hanson (1996, 1997) resuscitate the trade-inequality nexus by emphasizing offshoring activities abroad and their impacts on the domestic economy. Indeed, a substantial part of the increases in international trade since 1990s has been associated closely with a rapid expansion of global production networks. Under a Heckscher-Ohlin framework with a continuum of goods, Feenstra and Hanson (1996, 1997) convincingly show that offshoring activities substantially increase the relative demand for skilled-labor not only in developed countries but also in developing countries.

Taken aforementioned recent developments in the trade literature into account, this paper investigates the major factors contributed to within-industry wage differentials in Korean manufacturing for the period between 1980 and 2012. Especially we examine the relative importance of international trade, skilled-biased technological change and labor market conditions on within-sector wage inequality. As for the effect of trade on wage structure, we employ various trade indicators such as trade openness, FDI intensities, and offshoring measures à la Feenstra and Hanson (1997).

There are a number of reasons why Korean experience is particularly interesting for identifying the globalization-inequality nexus. First of all, Korea has gone through rapid economic development since 1960s, during which international trade has been an important driver. Empirical evidence on trade-induced wage inequality for developed countries, notably the United States, has often been criticized due to the small volume of trade compared to the overall economic size (Krugman; 1995). Korea is certainly not the case since its trade intensity, the ratio of trade volume relative to GDP, has been steadily increased from 21.4% in 1962 to 95.9% in 2014, reaching at 110.0% in 2011.

Second, the pattern of wage inequality in Korea reveals a "U" shaped change, declining during the 1970-80s and first half of the 1990s, and increasing afterward. The decreasing trend in wage inequality at the early stage of economic development when skilled-labor had been a relatively scare factor is seemingly consistent with the Heckscher-Ohlin prediction. On the other hand,

(2011) for an excellent survey on this issue.

examining rising wage inequality after the mid-1990s is also quite interesting since during this period the contribution of net exports to GDP has been even much larger than before and foreign outsourcing has rapidly expanded.

Last but not the least, the increase in the college premium, often found in advanced economies, has not been observed for the Korean case. Interestingly, the monthly wages for workers whose educational background is at most high-school drop-out have experienced the highest wage growth over the last three decades, while the wage increase for university graduates or over has been the most modest. As depicted in Figure 1, the wage of university-educated workers relative to that of non-workers of other education background declined dramatically over 1980 to the mid-1990s. One of the primary reasons for this trend is a relatively rapid expansion of secondary and tertiary education, so that the growing demand for skilled labor was matched by a concurrent massive increase in its supply.

// Figure 1 around here //

There have been several studies that examine the sources of the changes in inequality of Korea. According to Fields and Yoo (2000), for example, the most important factors in explaining the change in income inequality during 1976-1993 are years of education, industry, occupation and potential experience. Kang and Yun (2008) find that changes in wage structure explains virtually all of the changes in wage inequality, while changes in the distribution of worker's characteristics and those in occupational or industrial composition are turned out to be insignificant factors. Likewise Kim (2005) examines how overall wage structure has responded to changing labor supplies between 1978 and 2002. He finds the importance of changes in educational and age distributions of labor supply in the determination of wage inequality.

Mah (2003) and Sato and Fukushige (2009) examine the relevance of the Kuznets inverted-U hypothesis that income inequality grows at the early stage of economic development and then declines during later stages. While Mah (2003) shows weak evidence on the Kuznets hypothesis, Sato and Fukushige (2009)'s findings do not support for it for the case of Korea. In addition, Sato and Fukushige suggest that international trade reduces income inequality both in the short-run and long-run and capital market opening contributes to rising income inequality.

On the other hand, Kwack (2010) finds that wage inequality is related negatively to the relative supply of skilled labor and positively to the capital-to-GDP ratio and export intensity. He argues that trade openness, proxied by the

ratio of exports of goods and services to GDP, is one of the factors for shifting up the relative demand for skilled labor.

More recently, Jeon et al. (2013) studies the influence of trade and offshoring on the skill premium using Korean labor panel data. Their results indicate a positive linkage between skill premium and trade/foreign outsourcing. Finally, by employing an error correction model over 1992- 2011, Kang (2014) investigates the effect of trade openness and FDI on income distribution. He finds that income inequality is reduced as trade openness increases, but deteriorated as both inward and outward FDI flows increase. Therefore, as far as the trade impact on inequality is concerned, evidence for the Korean case seems to be also mixed.

This paper contains a number of distinct features relative to the existing literature on the trade-inequality nexus of Korea. First of all, following the recent developments in the trade literature, we examine the impact of trade on within-industry wage inequality, rather than on overall wage inequality. By adopting Akerman et al. (2013)'s decomposition method, this paper confirms that within-sector wage variation explains most of overall wage inequality in Korean manufacturing.

Second, one of the shortcomings in previous studies on the relationship between trade and inequality of Korea is lack of appropriate controls for labor market conditions in estimation. Evidently, Korea has experienced dynamic changes in labor market environments, including rapid improvement in education attainment, worker's composition, ageing population and so on over the last several decades. Without careful control for these changes, therefore, the marginal impact of globalization on wage inequality could not be properly estimated. We also explicitly include skill-biased technological progress as a control variable in estimation.³

The rest of this paper is organized as follows. The next section provides a brief description of data construction and empirical strategies adopted in this study. In Section III, we present our estimation results on wage inequality decomposition *à la* Akerman et al. (2013) and on the determinants of within-sector wage variations. And the final section concludes.

³ Katz and Murphy (1992), for example, argue that the majority of shifts in relative labor demand toward skilled workers over the last decades occurred within sectors, and these within-sector shifts are likely to reflect skill-biased technological changes.

II. Data and Empirical Strategy

1. Data and Variable Construction

Our empirical analysis draws upon several data sources, including the Korean Occupational Wage Survey, Asia KLEMS data, Korean Input/Output Tables, and the UN Comtrade database. First of all, using the Korean Occupational Wage Survey (OWS hereafter), we extract wage inequality measures for the period of 1980-2012. The OWS is an annual business establishment conducted since 1970 by Korea's Ministry of Employment and Labor. The surveyed establishments are selected by adopting a stratified random sampling method among those employing at least ten workers.⁴ The sample size is between 400,000 and 500,000 workers per year.

The OWS contains detailed information on individual worker's occupation, industry, wages, region, and other individual characteristics such as age, sex, education, experience, and marital status. It includes about 150 occupations and 60 manufacturing industries based on an ISIC 3-digit level. It has covered all sectors until 1986 and excluded agriculture, forestry, hunting, and fishing sectors afterward.⁵

In this paper, we adopt the variance of logged-value for hourly wage rates as our measure of inequality, using the OWS dataset. Wage includes base salary, overtime pay and bonuses. We convert nominal wage rates into real ones by using wholesale price index.

Industry-level control variables regarding labor market conditions and technology come from Asia KLEMS dataset. In regression estimation, we restrict our attention to manufacturing sector. Asia KLEMS dataset comprises a total of 32 sectors, of which 12 of them are manufacturing sectors. Given data structure, we aggregate these into 10 manufacturing sectors and we use this classification in estimation: these are (1) Food, Beverages and Tobacco, (2) Textiles, Textile, Leather and Footwear, (3) Wood, Pulp, Paper, Printing and Publishing, (4) Refined Petroleum, Chemicals, Rubber and Plastics, (5) Other Non-metallic Mineral, (6) Basic Metals and Fabricated Metal, (7) Machinery, nec, (8) Electrical and Optical Equipment, (9) Transport Equipment, (10)

⁴ From 1999, the OWS expands the surveyed establishments into those employing 5 workers or more. In estimation, we restrict to workers who belong to companies of 10 workers or more for consistency.

⁵ The OWS excludes temporary workers, the self-employed and unemployed. Consequently, it is quite plausible that wage inequality measures from this data would understate the reality.

Manufacturing, nec. Therefore, we use a total of 330 observations over 1980-2012 in regression estimation.

Using Asia KLEMS data, we include the following three variables to control for labor market conditions in regression. First, we take the share of hours worked by high-skilled workers in total hours worked as a measure for the relative supply of skilled labor.⁶ Given the observation that there exist non-negligible wage differentials between male workers and female counterparts, we include the share in total hours worked by female workers in estimation. Likewise, workers' age structure is also considered by including the share of hours worked by workers aged 50 and over.

In addition, the existing empirical research consistently reports that skill-biased technological change is a major source of rising inequality. Taking this into account, we take the logged value of ICT capital services per hour worked as a proxy for skill-biased technological change.

As for trade-related variables for each sector, we consider the ratio of trade volume (or exports and/or imports) to value-added, the share of inward and outward FDI flows relative to value-added, import penetration ratio, and offshoring measures *à la* Feenstra and Hanson (1999). Trade data come from the UN Comtrade database, inward FDI flows from the Ministry of Trade, Industry and Energy, and outward FDI from Korean EXIM Bank database. Asia KLEMS data contain sectorial level value-added. Differences in currency nomination are adjusted by using yearly average foreign exchange rates.

Feenstra and Hanson (1999) define the offshoring measure by the industrial share of intermediate inputs that are imported; that is, for an industry k purchasing inputs j , it is defined as

$$\text{Offshoring}_k = \frac{\sum_j (\text{industry } k \text{ purchase of good } j) \left(\frac{\text{imports of good } j}{\text{total domestic consumption of good } j} \right)}{\sum_j (\text{industry } k \text{ purchase of good } j)}$$

(1)

where domestic consumption is measured as gross production + imports - exports.

We obtain industrial export and import data from the UN Comtrade data, and gross output from Asia KLEMS. Information on sectorial purchase of intermediate inputs is calculated using Korean I/O tables in various years. For years that I/O tables do not exist, we apply an I/O table of the closest year

⁶ KLEMS data define skill level based on education attainment. High-skilled workers are those who finished at least university/college programs.

instead. Those years are 1989, 199-92, 1994, 1996-97, 1999, 2001-02 and 2004.

2. Decomposition of Wage Inequality

Having the inequality measure in hand, we first explore the sources of wage inequality by decomposing overall wage inequality into within- and between-group components. Specifically, we adopt Akerman et al. (2013)'s decomposition method in the following;

$$\frac{1}{N_t} \sum_i (w_{it} - \bar{w}_t) = \frac{1}{N_t} \sum_l \sum_{i \in l} (w_{it} - \bar{w}_{lt}) + \frac{1}{N_t} \sum_l N_{lt} (\bar{w}_{lt} - \bar{w}_t) \quad (2)$$

where w_{it} denotes an individual worker i 's the log wage level at time t , while \bar{w}_{lt} and \bar{w}_t are the average log wage within a group l and the overall average log wage, respectively. N denotes the number of workers. Finally, we define groups by sectors, occupations, education levels, occupation-education levels, sector-occupation, sector-education levels, and sector-occupation-education levels. Using Swedish employer-employee data, Akerman et al. (2013) show a substantial contribution for wage inequality within groups.

3. Determinants of Within-sector Wage Variations

Given the importance of within-sector wage variations to explain over wage inequality, we then examine the impact of international trade on within-sector wage variations, using a balanced panel of 10 Korean manufacturing sectors over 1980-2012.

Specifically, we pursue regression estimations based on the following specifications:

$$Var(wage)_{kt} = \alpha + \beta \Sigma_{kt} + \gamma SBTC_{kt} + \theta \Psi_{kt} + \nu \Gamma + \varepsilon_{kt} \quad (3)$$

where $Var(wage)_{kt}$ is the variance of the logged value of the monthly average real wage rates for an industry k at time t . Σ_{kt} denotes a vector of trade-related variables, such as trade intensity, FDI intensity, and offshoring measures defined in Equation (1). $SBTC_{kt}$ stands for skill-biased technological change,

which is proxied by the logged value of ICT capital services per hour worked, as aforementioned. Ψ_{kt} is a vector of labor market variables, including the relative supply of skilled workers, the share of female workers and that of aged workers in total hours worked. Finally, T denotes a vector of time dummies.

III. Empirical Results

1. Importance of Within-group Wage Variations

Figure 2 shows the trends in overall, within-sector and between-sector wage variations in Korean manufacturing for the period of 1980-2012.⁷ The first observation is that the trend of overall wage inequality over time shows a "U" shaped pattern; overall wage inequality tends to decrease over 1980- 1994, and then rise afterward. According to this figure, wage was more unequal in the 1980s than in the 2000s. It is also interesting that wage inequality was sizably reduced during the late 1980s when labor movements became active and widespread. And rising wage dispersion in the late 1990s was to some extent coincided with the Asian Financial Crisis of 1997.

Second, within-sector wage variations explain most of overall wage inequality, which is consistent with Akerman et al. (2013)'s finding on Swedish data. And the contribution of within-sector variations to overall inequality increases over time. As a matter of fact, for the period of 1980-1994 when wage inequality declined, around 84.2% of the level of wage inequality is within-sector. The contribution of within-sector increased up to 90.8% on average over 1995-2012.

// Figure 2 around here //

We also apply Akerman et al. (2013)'s decomposition method to different types of groups, depending on sectors, education levels and occupations. The results are reported in Table 1.

// Table 1 around here //

⁷ We'd like to report that either the inclusion of non-manufacturing sectors into analysis, the expansion of the sample period over 1970s, or even the usage of more disaggregate industrial classification does not change the qualitative results presented in this section.

As shown in Table 1, no matter how groups are defined, within-group variations explain at least more than a half of overall wage inequality in Korean manufacturing sector. More importantly, the contribution of within-group variations has increased over time. For example, around 52.4% of the level of wage inequality is within sector-occupation-education groups over 1980-1994, and it has increased up to 71.1% for the period of 1995-2012. The bottom part of Table 1 presents the contribution of within occupation-education wage variations by each sector. Again, growing importance of within-group wage variations is confirmed again. Overall, these findings imply that it becomes more and more critical to explore the underlying mechanisms of within-group variations, to better understand inequality issues.

2. Trade-Inequality Nexus: Estimation Results

In this section, we discuss the relative importance of international trade, skilled-biased technological change and labor market conditions on within-sector wage inequality, basing on our estimation results. Before discussing regression results, let's look at descriptive statistics for variables in estimation, which is presented in Table 2. We selected 4 years' data from 1982 to 2012 with a 10-years interval for each, in order to observe a medium-term evolution of each indicator.

// Table 2 around here //

As depicted in Figure 2, within-sector variations show a "U" shaped pattern over time, just like overall wage variations. Trade intensity seems to follow a similar path during the sampling years. To see it more clearly, we present the trends of trade-related variables over the sample period in Figure 3.

// Figure 3 around here //

Both export intensity and import intensity declined until the mid-1990s and then rebounded afterwards. A drastic surge of export intensity in the late-1990s was due to the temporary impact from the Asian Financial Crisis. On the other hand, FDI intensities- both inward and outward – have steadily grown over time. In case of offshoring, we can hardly see a clear time-series pattern from Figure 3, but a more detailed look for the whole sample indicates that offshoring by

Korean manufacturing – the share of intermediate inputs that are imported - had remained around 25~30% until the early 2000s and then started to expand afterward.

On the other hand, ICT usage in manufacturing sector has been accelerating over time. Among labor market variables, the relative supply of skilled labor – the share of hours worked by high-skilled workers in total hours worked – has expanded substantially, from 4.8% in 1982 to 22.3% in 2012. In addition, the share ratio of hours worked by workers of 50 years-old or over has also increased impressively. On the other hand, interestingly, the share of female workers in total hours in the manufacturing sector has declined, from 34.7% in 1982 to 24.4% in 2012.

Table 3 reports our regression estimation results for the whole sampling years, using Random Effect model (RE model hereafter), Fixed Effect model (FE model hereafter) and System GMM model based on Equation (2).

// Table 3 around here //

According to RE model estimation results, wage variations within sectors are decreased as the ratio of export volume to value-added increases. On the other hand, FE model estimation results indicate an exactly opposite relationship between them. In addition, the impact of import intensity on within-sector wage variation is turned out to be positive and strongly significant in FE model. By carrying out the Hausman test, we find that FE estimation is clearly preferable to RE one.

Finally, in order to control for endogeneity issues, we also employ the System GMM model developed by Blundell and Bond (1998) and report the results in the last column of Table 3.⁸ Our analytic results largely confirm the influence of import competition on rising within-sector wage inequality. The estimated coefficients on import intensity are negative with a strong statistical significance for both FE and System GMM estimations, which are preferred models in empirical perspective.

These findings are consistent with theoretical implications from Melitz (2003) and other recent heterogeneous-firm models. According to Melitz (2003), higher import intensity poses heightened competitive pressure in the domestic market, and result in a reallocation of resources toward more productive firm. During

⁸ According to the Sargan test result the null hypothesis of over-identifying restrictions is rejected, but the Hansen test does not reject it for the same data. Taking into consideration that heteroskedasticity may result in incorrect rejection by the Sargan test and thus Hansen test is more robust than the other, we could pursue the System GMM estimation here.

this process, overall wage inequality could arise due to wage dispersion between firms. Using Brazilian employer-employee data, Helpman et al. (2016) recently confirm such mechanism.

On the other hand, our System GMM estimation results suggest that higher export intensity would reduce within-sector wage inequality. These results are somewhat puzzling at a first glance, but we could expect differential impacts between export and import channels. For example, Baggs et al. (2002) provide empirical evidence that heightened import competition would raise the probability that low productivity firms exit out of market, which is largely consistent with Melitz (2003). At the same time, they find that enhanced export opportunities through trade liberalization influence productivity in the reverse direction and thus the survival probability for low productivity firms could in fact increase. If export opportunities allow these firms that were paying lower wages to increase the wage they offer, then wage inequality could be possibly reduced.

Going back to Table 3, foreign direct investments and offshoring are turned out to be, at least yet, not much important determinants for within-sector wage dispersion in Korean manufacturing. Even though FDI intensities- both inward and outward – tend to improve over time, they still remain at low levels so that they may not have a substantial impact on wage variation so far.

On the other hand, estimation results suggest that skilled-biased technological progress – proxied by the logged value of ICT capital services per hour worked in estimation – is apparently the most consistent and robust factor for explaining within-sector wage dispersion.

As aforementioned, wage dispersion in Korean manufacturing has evolved with "U" shaped pattern. In this respect, we examine further whether there existed some structural changes in determinants of wage inequality before and after the mid-1990s. Specifically, we employ the Chow test to determine whether data for the entire period should be pooled together or be estimated separately. The test results strongly reject the null hypothesis that the coefficients estimated over the periods of 1980-1994 are equal to those over the later periods. As a result, then we run regression analyses, separately for two distinct periods, 1980-1994 and 1995-2012, and report our analytic results in Table 4.

// Table 4 around here //

Our analytic results indicate that different types of trade-related activities generally do not explain much of within-sector wage variations for the period of 1980-1994. Most of the estimated coefficients on trade-related variables turned

out to be statistically insignificant, regardless of empirical specifications. We also find that skill-biased technological change is not a major determinant of wage dispersion either.

On the other hand, for the period after the mid-1990s, estimated results presented in Table 4 are largely matched with those in Table 3. They suggest that wage inequality rises as import competition becomes more intense, and skill-biased technological change is arguably one of the most influential factors in shaping within-sector wage dispersion. In addition, estimation results suggest that a rapid increase of skilled workers into labor market during this period contributed to reducing wage inequality, although we fail to get it from System GMM estimation. Another noticeable observation from estimation is a possible negative relationship between that outward direct investment and wage dispersion.

Finally, unlike our initial presumption, we could not find any statistical meaning impacts of workers' ageing structure on within-sector wage dispersion since mid-1990s. Related to this, Chang and Lee (2013) recently show that, among the effects of within-group inequality, the increase in income inequality within working-age households explains the majority of the inequality, while the proportional change in elderly households would be of second importance.

V. Concluding Remarks

Taking recent new developments in trade literature into account, this paper empirically investigates the relative importance of international trade, skilled-biased technological change and labor market conditions on within-sector wage inequality, focusing on Korean manufacturing for the period between 1980 and 2012.

First of all we find that wage dispersion in Korean manufacturing has evolved with a "U" shaped pattern; it had declined until the mid-1990s and then bound back afterward. In addition, this paper reports that within-sector wage variations explain most of overall wage inequality, which is consistent with Akerman et al. (2013), and the contribution of within-sector variations to overall inequality is even increasing further over time. The same observations could be found when we re-do similar analysis to within-occupation and/or within-education group wage dispersion.

Furthermore, our analytic results confirm the importance of import competition on rising within-sector wage inequality in our most preferred estimation models. These findings are largely in line with recent heterogeneous-firm models, such as Melitz (2003) and Helpman et al. (2016).

Overall, this paper highlights the necessity to further scrutinize within-group wage dispersion, both theoretically and empirically. The current literature proposes a number of channels through which trade activities affect within-sector wage inequality, including firm heterogeneity, incomplete contracting, and task offshoring among many others (Harrison, McLaren and McMillan, 2011; Helpmand et al., 2016). Exploring the underlying mechanisms of within-group wage variations in further details would be critical to better understand overall inequality issues.

References

- Akerman, A. et al. (2013), "Sources of Wage Inequality," *American Economic Review*, 103(3), pp.214-219.
- Baggs, J. et al. (2002), "Free Trade, Firm Heterogeneity and Canadian Productivity," *Document de travail*, Sauder School of Business, Université de la Colombie-Britannique .
- Berman, E. et al. (1998), "Implications of Skill-biased Technological Change: International evidence," *Quarterly Journal of Economics*, 113(4), pp. 1245–1279.
- Blundell, R., and S. Bond (1998), "Initial conditions and moment restrictions in dynamic panel data models," *Journal of Econometrics*, 87, pp. 115–143.
- Chang, J. and B. H. Lee (2013), "Increasing Income Inequality and Policy Options in Korea," *e-Labor News*, No.129, Korea Labor Institute.
- Feenstra, R.C. and Hanson, G.H. (1996), "Foreign Investment, Outsourcing and Relative Wages," In R.C. Feenstra, G.M. Grossman and D.A. Irwin (eds.), *The Political Economy of Trade Policy: Papers in Honor of Jagdish Bhagwati* (pp. 89–127), Cambridge, MA: MIT Press.
- Feenstra, R.C. and Hanson, G.H. (1997), "Foreign Direct Investment and Relative Wages: Evidence from Mexico's Maquiladoras," *Journal of International Economics*, 42(3–4), pp. 371–393.
- Feenstra, R.C. and Hanson, G.H. (1999), "The Impact of Outsourcing and High-Technology Capital on Wages: Estimates for the United States, 1979-1990," *Quarterly Journal of Economics*, 114(3): 907–940.
- Fields, G. S. and G. Yoo (2000), "Falling Labor Income Inequality in Korea's Economic Growth: Patterns and Underlying Causes," *Review of Income and Wealth*, 46(2), pp.139-159.
- Fields, G. S. (2003), "Accounting for Income Inequality and its Change: A New Method with Application to U.S. Earnings Inequality," In Solomon W. Polacheck (Ed.), *Research in Labor Economics*, Vol. 22: Worker Well-Being and Public Policy, Oxford: JAI pp 1-38.
- Goldberg, P. K. and N. Pavcnik (2007), "Distributional Effects of Globalization in Developing Countries," *Journal of Economic Literature*, Vol.XLV, pp.39-82.
- Harrison, A., McLaren, J. and M. McMillan (2011), "Recent Perspectives on Trade and Inequality," *Annual Review of Economics*, 2011. 3, pp.261-289.
- Helpman, E. et al. (2016), "Trade and Inequality: From Theory to Estimation," mimeo.
- Jaumotte, F., Lall, S. and C. Papageorgiou (2008), "Rising Income Inequality: Technology, or Trade and Financial Globalization," WP/08/185, International Monetary Fund.
- Jeon, Y. et al. (2013), "The Effect of the Material Offshoring and Trade in the Skill Premium," *Journal of Korean Economics Studies*, 31(2), pp.97-132 (in Korean)
- Juhn, C., Murphy, K. M. and B. Pierce (1993), "Wage Inequality and the Rise in Returns to Skill," *Journal of Political Economy*, 101(3), pp. 410-442.
- Kang, B.G. and M.S. Yun (2008), "Changes in Korean Wage Inequality, 1980-2005,"

IZA DP No.3780.

- Kang, M. J. (2014), "The Study on the Effect of Trade Openness and FDI on Income Distribution," *International Commerce and Information Review*, 16(4), pp.151-167.
- Katz, L. F. and K. M. Murphy, "Changes in Relative Wages, 1963-1987: Supply and Demand Factors," *The Quarterly Journal of Economics*, 107(1), pp. 35-78.
- Kim, D. I. (2005), "Growth in College Education and Wage Differentials in Korea," *Seoul Journal of Economics*, 18(2), pp. 87-123.
- Krugman, P.R. (1995), "Growing World Trade: Causes and Consequences," *Brookings Papers on Economic Activity*, 1995(1), pp.327-377.
- Kurokawa, Y. (2014), "A Survey of Trade and Wage Inequality: Anomalies, Resolutions and New Trends," *Journal of Economic Surveys*, 28(1), pp.169-193.
- Kwack, S. Y. (2010), "Wage Inequality and the Efficiency of Workers in Korea, 1965-2007," Working paper No, 437, Institute for Monetary and Economic Research, the Bank of Korea.
- Kwack, S. Y. and Y. S. Lee (2007), "The Distribution and Polarization of Income in Korea, 1965-2005: A Historical Analysis," *Journal of Economic Development*, 32(2), pp.1-39.
- Mah, J. S. (2003), "A Note on Globalization and Income Distribution – the Case of Korea, 1975-1995," *Journal of Asian Economics*, 14, pp.167-164.
- Sato, S. and M. Fukushige (2009), "Globalization and economic inequality in the short and long run: The case of South Korea 1975-1995," *Journal of Asian Economics*, 20(1), pp.62-68.

[Table 1] Contribution of Within-group Component to overall Wage Inequality

	1980-1994 (A)	1995-2012 (B)	B-A
Within Sector	84.2%	90.8%	6.6% p
Within Occupation	71.3%	84.5%	13.2% p
Within Education Group	70.6%	85.4%	14.8% p
Within Occupation-Education	62.6%	80.4%	17.9% p
Within Sector-Education	60.7%	76.5%	15.8% p
Within Sector-Occupation	57.1%	75.4%	18.3% p
Within Sector-Education-Occupation	52.4%	71.1%	18.7% p
By Sector (Within Occupation-Education)			
Food, Beverages and Tobacco,	63.8%	77.8%	14.0% p
Textiles, Textile, Leather and Footwear	59.5%	69.7%	10.2% p
Wood, Paper, Printing and Publishing	59.9%	78.2%	18.3%
Petroleum, Chemicals, Rubber & Plastics	58.9%	82.2%	23.3%
Other Non-metallic Mineral	67.2%	79.6%	12.3%
Basic Metals and Fabricated Metal	72.6%	85.5%	12.8% p
Machinery, nec	68.6%	83.1%	14.5% p
Electrical and Optical Equipment	55.9%	70.5%	14.6%
Transport Equipment	74.1%	90.0%	15.9%
Manufacturing, nec	67.1%	81.1%	14.0%

Note: The figures are simple averages over the period in focus. Data include 10 manufacturing sectors, 4 types of education level (High-school drop-outs or less, High-school graduates, College graduates, and University graduates or more), and 4 types of occupations.

[Table 2] Descriptive Statistics for Selected Years

	1982	1992	2002	2012
Within-sector Wage Variations	.3335 (.0706)	.2222 (.0518)	.2557 (.0610)	.2828 (.0328)
Export Intensity	1.9856 (2.9822)	1.3152 (1.5975)	1.5066 (1.4162)	1.5283 (.9046)
Import Intensity	1.5549 (1.4956)	1.1598 (1.1665)	1.2801 (.9662)	1.6420 (1.1613)
FDI Intensity	.0091 (.0088)	.0089 (.0091)	.0400 (.0745)	.0422 (.0848)
ODI Intensity	.0002 (.0005)	.0100 (.0091)	.0240 (.0178)	.0301 (.0200)
Offshoring	.2798 (.1158)	.3863 (.2070)	.2531 (.0968)	.3074 (.1039)
ICT Services per Hour Worked (SBTC, log-value)	2.0913 (1.2122)	5.5315 (1.0739)	7.1334 (.9800)	7.3113 (1.1697)
Relative Supply of Skilled Labor	.0476 (.0137)	.0875 (.0268)	.1265 (.0445)	.2228 (.0613)
Female Worker Share in Total Hours Worked	.3474 (.1581)	.3017 (.1419)	.2632 (.1224)	.2435 (.1197)
Aged Worker Share (50 years old or over) in Total Hours Worked	.1077 (.0282)	.1627 (.0446)	.2780 (.0441)	.3506 (.0700)

Note: Main figures are each year's mean values for the variables included in estimation, and figures in the parentheses are their standard deviations.

[Table 3] Regression Results I: Whole Sample (1980-2012)

	Random Effect	Fixed Effect	System GMM
Export/Value-added	-.0046*** (.0017)	.0069*** (.0026)	-.0171*** (.0042)
Import/Value-added	-.0088* (.0045)	.0175*** (.0055)	.0218*** (.0067)
FDI/Value-added	-.0095 (.0463)	-.0176 (.0426)	-.0391 (.0264)
ODI/Value-added	-.0714 (.0664)	.0523 (.0552)	-.0081 (.0334)
Offshoring	.0485 (.0402)	-.1158*** (.0426)	-.0285 (.0354)
SBTC	.0292*** (.0027)	.0121** (.0052)	.0145* (.0084)
Skilled Labor Supply	.0271 (.0194)	-.0056 (.0197)	-.0430* (.0227)
Female share	.1144*** (.0197)	-.1056 (.0966)	.1393 (.1522)
Aging	.0017 (.0023)	-.0009 (.0020)	-.0010 (.0017)
Constant	.0012 (.0477)	.3562*** (.0443)	.2810*** (.0569)
R- Squared			
Overall	.6571	.1916	
Within	.5524	.6209	
Between	.8072	.0737	

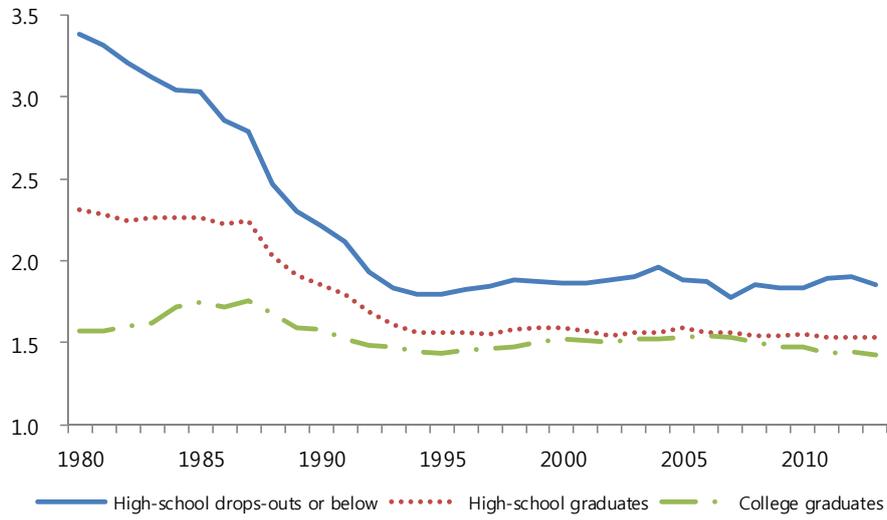
Year dummies are not reported but included in the regressions. *, ** and *** indicate that the estimated coefficients are significant at the 10%, 5% and 1% level, respectively.

[Table 4] Regression Results II: Sub-samples

	Sub-sample I (1980-1994)		Sub-sample II (1995-2012)	
	Fixed Effect	System GMM	Fixed Effect	System GMM
Export/Value-added	.0055 (.0038)	-.0031 (.0069)	.0021 (.0046)	-.0063 (.0062)
Import/Value-added	.0085 (.0097)	.0049 (.0096)	.0110* (.006)	.0278*** (.0106)
FDI/Value-added	-.0627 (.2270)	.0005 (.1849)	-.0317 (.0346)	-.0316 (.0267)
ODI/Value-added	.0523 (.0454)	.0251 (.0344)	-.1372 (.1565)	-.3274** (.1391)
Offshoring	-.1158 (.0468)	-.0369 (.0422)	.0178 (.0738)	.0552 (.0691)
SBTC	.0121 (.0130)	.0027 (.0140)	.0114** (.0053)	.0337*** (.0093)
Skilled Labor Supply	-.0056 (.1850)	-.3182 (.2078)	-.0578*** (.0185)	.0142 (.0157)
Female share	-.0216 (.3078)	.2032 (.3712)	.5268*** (.1585)	.0060 (.1457)
Aging	-.1473*** (.0534)	-.2879*** (.0621)	-.0006 (.0018)	-.0019 (.0016)
Constant	.3362*** (.0443)	.3525*** (.1153)	.1667** (.0757)	-.0380 (.0791)
R- Squared				
Overall	.3483		.4159	
Within	.7951		.6844	
Between	.0484		.3474	

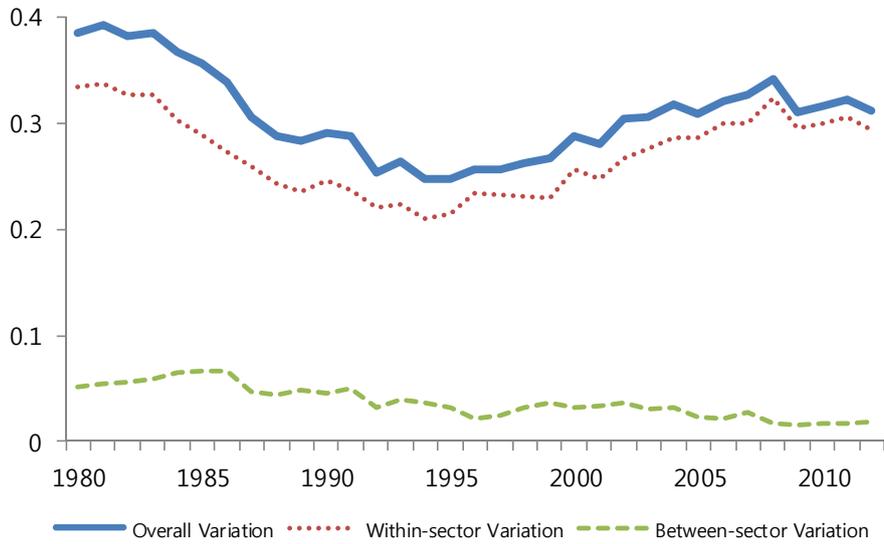
Note: Year dummies are not reported but included in the regressions. *, ** and *** indicate that the estimated coefficients are significant at the 10%, 5% and 1% level, respectively.

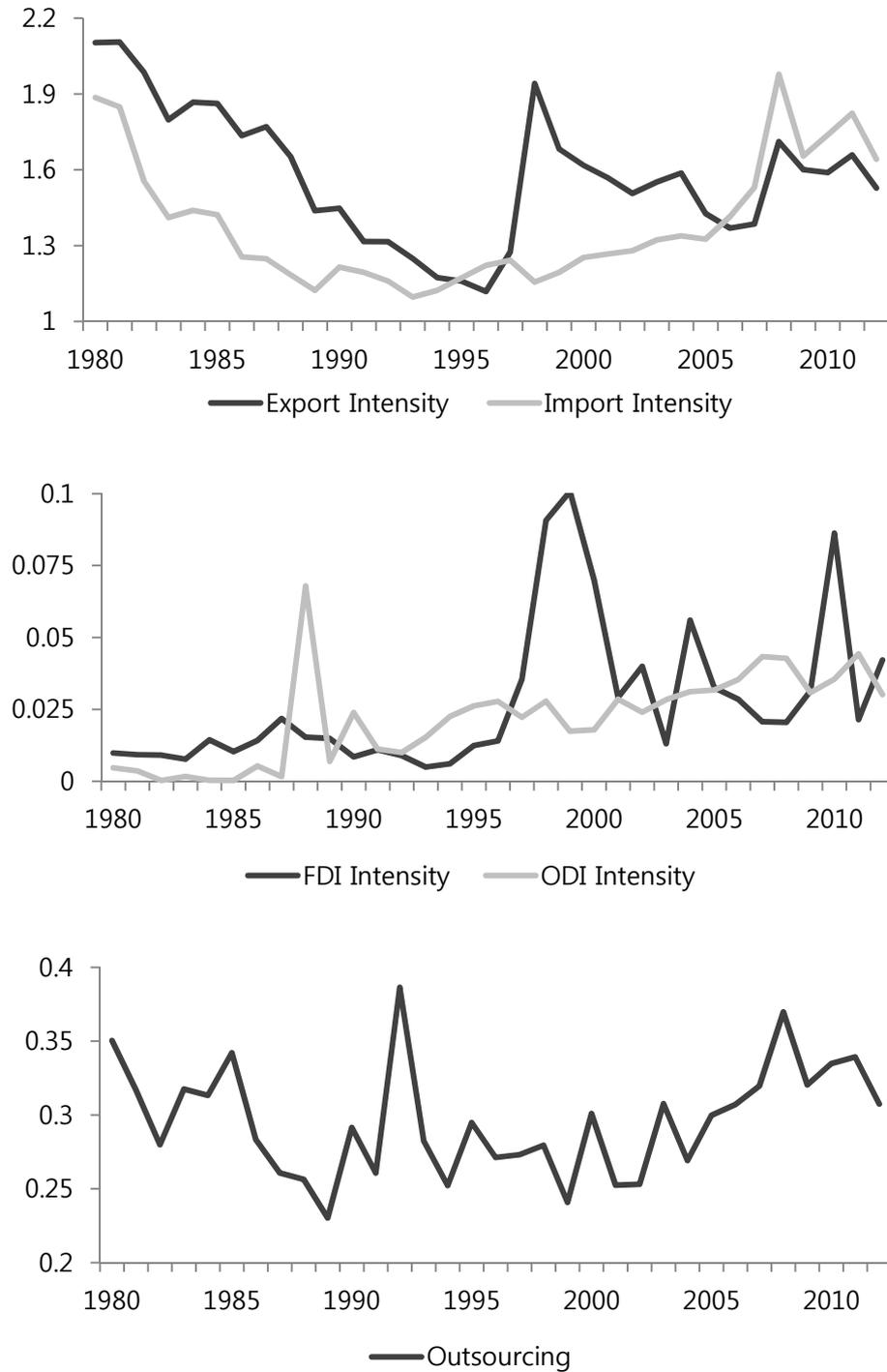
[Figure 1] Trend of Relative Wages by Education Group



Note: Each figure represents the ratio of the monthly average wage for university graduates or over relative to each education group.
 Source: The Ministry of Employment and Labor, Korea

[Figure 2] Decomposition of Wage Inequality in Korean Manufacturing



[Figure 3] Trends of Trade-related Variables for the Sample Period

Working Paper Series

<i>Category</i>	<i>Serial #</i>	<i>Author</i>	<i>Title</i>
Working Paper	99-01	Se-II Park	Labor Market Policy and The Social Safety Net in Korea: After 1997 Crisis
Working Paper	99-02	Sang-Woo Nam	Korea's Economic Crisis and Corporate Governance
Working Paper	99-03	Sangmoon Hahm	Monetary Bands and Monetary Neutrality
Working Paper	99-04	Jong-II You Ju-Ho Lee	Economic and Social Consequences of globalization: The Case of South Korea
Working Paper	99-05	Sang-Woo Nam	Reform of the Financial Sector in East Asia
Working Paper	99-06	Hun-Joo Park	Dirigiste Modernization, Coalition Politics, and Financial Policy Towards Small Business: Korea, Japan, and Taiwan Compared
Working Paper	99-07	Kong-Kyun Ro	Mother's Education and Child's Health: Economic Anlaysia of Korean Data
Working Paper	99-08	Euysung Kim	Trade Liberalization and Productivity Growth in Korean Manufacturing Industries: Price Protection, Market Power, and Scale Efficiency
Working Paper	99-09	Gill-Chin Lim	Global Political-Economic System and Financial Crisis: Korea, Brazil and the IMF
Working Paper	99-10 (C99-01)	Seung-Joo Lee	LG Household & Health Care: Building a High-Performing Organization
Working Paper	00-01	Sangmoon Hahm Kyung-Soo Kim Ho-Mou Wu	Gains from Currency Convertibility: A Case of Incomplete Markets
Working Paper	00-02	Jong-II You	The Bretton Woods Institutions: Evolution, Reform and Change
Working Paper	00-03	Dukgeun Ahn	Linkages between International Financial and Trade Institutions: IMF, World Bank and WTO
Working Paper	00-04	Woochan Kim	Does Capital Account Liberalization Discipline Budget Deficit?
Working Paper	00-05	Sunwoong Kim Shale Horowitz	Public Interest "blackballing" in South Korea's Elections: One-Trick Pony, or Wave of the Future?
Working Paper	00-06	Woochan Kim	Do Foreign Investors Perform Better than Locals? Information Asymmetry versus Investor Sophistication
Working Paper	00-07	Gill-Chin Lim Joon Han	North-South Cooperation for Food Supply: Demographic Analysis and Policy Directions
Working Paper	00-08 (C00-01)	Seung-Joo Lee	Strategic Newspaper Management: Case Study of Maelil Business
Working Paper	01-01	Seung-Joo Lee	Nokia: Strategic Transformation and Growth
Working Paper	01-02	Woochan Kim Shang-Jin Wei	Offshore Investment Funds: Monsters in Emerging Markets?
Working Paper	01-03	Dukgeun Ahn	Comparative Analysis of the SPS and the TBT Agreements
Working Paper	01-04	Sunwoong Kim Ju-Ho Lee	Demand for Education and Developmental State: Private Tutoring in South Korea
Working Paper	01-05	Ju-Ho Lee Young-Kyu Moh Dae-II Kim	Do Unions Inhibit Labor Flexibility? Lessons from Korea
Working Paper	01-06	Woochan Kim Yangho Byeon	Restructuring Korean Bank's Short-Term Debts in 1998 - Detailed Accounts and Their Implications -
Working Paper	01-07	Yoon-Ha YOO	Private Tutoring as Rent Seeking Activity Under Tuition Control

* The above papers are available at KDI School Website <<http://www.kdischool.ac.kr/new/eng/faculty/working.jsp>>. You may get additional copy of the documents by downloading it using the Acrobat Reader.

Working Paper Series

Category	Serial #	Author	Title
Working Paper	01-08	Kong-Kyun Ro	경제활동인구 변동의 요인분석: 선진국과의 비교분석
Working Paper	02-01	Sangmoon Hahm	Restructuring of the Public Enterprise after the Crisis: The Case of Deposit Insurance Fund
Working Paper	02-02	Kyong-Dong KIM	The Culture of Industrial Relations in Korea: An alternative Sociological Approach
Working Paper	02-03	Dukgeun Ahn	Korean Experience of the Dispute Settlement in the world Trading System
Working Paper	02-04	BERNARD S. BLACK Hasung Jang Woochan Kim	Does Corporate Governance Matter? (Evidence from the Korean Market)
Working Paper	02-05	Sunwoong Kim Ju-Ho Lee	Secondary School Equalization Policies in South Korea
Working Paper	02-06	Yoon-Ha YOO	Penalty for Mismatch Between Ability and Quality, and School Choice
Working Paper	02-07	Dukgeun Ahn Han-Young Lie	Legal Issues of Privatization in Government Procurement Agreements: Experience of Korea from Bilateral and WTO Agreements
Working Paper	02-08	David J. Behling Kyong Shik Eom	U.S. Mortgage Markets and Institutions and Their Relevance for Korea
Working Paper	03-01	Sang-Moon Hahm	Transmission of Stock Returns and Volatility: the Case of Korea
Working Paper	03-02	Yoon Ha Yoo	Does Evidentiary Uncertainty Induce Excessive Injurer Care?
Working Paper	03-03	Yoon Ha Yoo	Competition to Enter a Better School and Private Tutoring
Working Paper	03-04	Sunwoong Kim Ju-Ho Lee	Hierarchy and Market Competition in South Korea's Higher Education Sector
Working Paper	03-05	Chul Chung	Factor Content of Trade: Nonhomothetic Preferences and "Missing Trade"
Working Paper	03-06	Hun Joo Park	RECASTING KOREAN <i>DIRIGISME</i>
Working Paper	03-07	Taejong Kim Ju-Ho Lee Young Lee	Mixing <i>versus</i> Sorting in Schooling: Evidence from the Equalization Policy in South Korea
Working Paper	03-08	Naohito Abe	Managerial Incentive Mechanisms and Turnover of Company Presidents and Directors in Japan
Working Paper	03-09	Naohito Abe Noel Gaston Katsuyuki Kubo	EXECUTIVE PAY IN JAPAN: THE ROLE OF BANK-APPOINTED MONITORS AND THE MAIN BANK RELATIONSHIP
Working Paper	03-10	Chai-On Lee	Foreign Exchange Rates Determination in the light of Marx's Labor-Value Theory
Working Paper	03-11	Taejong Kim	Political Economy and Population Growth in Early Modern Japan
Working Paper	03-12	Il-Horn Hann Kai-Lung Hui Tom S. Lee I.P.L. Png	Direct Marketing: Privacy and Competition
Working Paper	03-13	Marcus Noland	RELIGION, CULTURE, AND ECONOMIC PERFORMANCE
Working Paper	04-01	Takao Kato Woochan Kim Ju Ho Lee	EXECUTIVE COMPENSATION AND FIRM PERFORMANCE IN KOREA
Working Paper	04-02	Kyoung-Dong Kim	Korean Modernization Revisited: An Alternative View from the Other Side of History

* The above papers are available at KDI School Website <<http://www.kdischool.ac.kr/new/eng/faculty/working.jsp>>. You may get additional copy of the documents by downloading it using the Acrobat Reader.

Working Paper Series

<i>Category</i>	<i>Serial #</i>	<i>Author</i>	<i>Title</i>
Working Paper	04-03	Lee Seok Hwang	Ultimate Ownership, Income Management, and Legal and Extra-Legal Institutions
Working Paper	04-04	Dongsoo Kang	Key Success Factors in the Revitalization of Distressed Firms: A Case of the Korean Corporate Workouts
Working Paper	04-05	Il Chong Nam Woochan Kim	Corporate Governance of Newly Privatized Firms: The Remaining Issues in Korea
Working Paper	04-06	Hee Soo Chung Jeong Ho Kim Hyuk Il Kwon	Housing Speculation and Housing Price Bubble in Korea
Working Paper	04-07	Yoon-Ha Yoo	Uncertainty and Negligence Rules
Working Paper	04-08	Young Ki Lee	Pension and Retirement Fund Management
Working Paper	04-09	Wooheon Rhee Tack Yun	Implications of Quasi-Geometric Discounting on the Observable Sharp e Ratio
Working Paper	04-10	Seung-Joo Lee	Growth Strategy: A Conceptual Framework
Working Paper	04-11	Boon-Young Lee Seung-Joo Lee	Case Study of Samsung's Mobile Phone Business
Working Paper	04-12	Sung Yeung Kwack Young Sun Lee	What Determines Saving Rate in Korea?: the Role of Demography
Working Paper	04-13	Ki-Eun Rhee	Collusion in Repeated Auctions with Externalities
Working Paper	04-14	Jaeun Shin Sangho Moon	IMPACT OF DUAL ELIGIBILITY ON HEALTHCARE USE BY MEDICARE BENEFICIARIES
Working Paper	04-15	Hun Joo Park Yeun-Sook Park	Riding into the Sunset: The Political Economy of Bicycles as a Declining Industry in Korea
Working Paper	04-16	Woochan Kim Hasung Jang Bernard S. Black	Predicting Firm's Corporate Governance Choices: Evidence from Korea
Working Paper	04-17	Tae Hee Choi	Characteristics of Firms that Persistently Meet or Beat Analysts' Forecasts
Working Paper	04-18	Taejong Kim Yoichi Okita	Is There a Premium for Elite College Education: Evidence from a Natural Experiment in Japan
Working Paper	04-19	Leonard K. Cheng Jae Nahm	Product Boundary, Vertical Competition, and the Double Mark-up Problem
Working Paper	04-20	Woochan Kim Young-Jae Lim Taeyoon Sung	What Determines the Ownership Structure of Business Conglomerates?: On the Cash Flow Rights of Korea's Chaebol
Working Paper	04-21	Taejong Kim	Shadow Education: School Quality and Demand for Private Tutoring in Korea
Working Paper	04-22	Ki-Eun Rhee Raphael Thomadsen	Costly Collusion in Differentiated Industries
Working Paper	04-23	Jaeun Shin Sangho Moon	HMO plans, Self-selection, and Utilization of Health Care Services
Working Paper	04-24	Yoon-Ha Yoo	Risk Aversion and Incentive to Abide By Legal Rules
Working Paper	04-25	Ji Hong Kim	Speculative Attack and Korean Exchange Rate Regime
Working Paper	05-01	Woochan Kim Taeyoon Sung	What Makes Firms Manage FX Risk? : Evidence from an Emerging Market
Working Paper	05-02	Janghyuk Lee Laoucine Kerbache	Internet Media Planning: An Optimization Model
Working Paper	05-03	Kun-Ho Lee	Risk in the Credit Card Industry When Consumer Types are Not Observable
Working Paper	05-04	Kyong-Dong KIM	Why Korea Is So Prone To Conflict: An Alternative Sociological Analysis

* The above papers are available at KDI School Website <<http://www.kdischool.ac.kr/new/eng/faculty/working.jsp>>. You may get additional copy of the documents by downloading it using the Acrobat Reader.

Working Paper Series

<i>Category</i>	<i>Serial #</i>	<i>Author</i>	<i>Title</i>
Working Paper	05-05	Dukgeun AHN	Why Should Non-actionable Subsidy Be Non-actionable?
Working Paper	05-06	Seung-Joo LEE	Case Study of L'Oréal: Innovation and Growth Strategy
Working Paper	05-07	Seung-Joo LEE	Case Study of BMW: The Ultimate Driving Machine
Working Paper	05-08	Taejong KIM	Do School Ties Matter? Evidence from the Promotion of Public Prosecutors in Korea
Working Paper	05-09	Hun Joo PARK	Paradigms and Fallacies: Rethinking Northeast Asian Security
Working Paper	05-10	WOOCHAN KIM TAEYOON SUNG	What Makes Group-Affiliated Firms Go Public?
Working Paper	05-11	BERNARD S. BLACK WOOCHAN KIM HASUNG JANG KYUNG-SUH PARK	Does Corporate Governance Predict Firms' Market Values? Time Series Evidence from Korea
Working Paper	05-12	Kun-Ho Lee	Estimating Probability of Default For the Foundation IRB Approach In Countries That Had Experienced Extreme Credit Crises
Working Paper	05-13	Ji-Hong KIM	Optimal Policy Response To Speculative Attack
Working Paper	05-14	Kwon Jung Boon Young Lee	Coupon Redemption Behaviors among Korean Consumers: Effects of Distribution Method, Face Value, and Benefits on Coupon Redemption Rates in Service Sector
Working Paper	06-01	Kee-Hong Bae Seung-Bo Kim Woochan Kim	Family Control and Expropriation of Not-for-Profit Organizations: Evidence from Korean Private Universities
Working Paper	06-02	Jaewn Shin	How Good is Korean Health Care? An International Comparison of Health Care Systems
Working Paper	06-03	Tae Hee Choi	Timeliness of Asset Write-offs
Working Paper	06-04	Jin PARK	Conflict Resolution Case Study: The National Education Information System (NEIS)
Working Paper	06-05	YuSang CHANG	DYNAMIC COMPETITIVE PARADIGM OF MANAGING MOVING TARGETS; IMPLICATIONS FOR KOREAN INDUSTRY
Working Paper	06-06	Jin PARK	A Tale of Two Government Reforms in Korea
Working Paper	06-07	Ilho YOO	Fiscal Balance Forecast of Cambodia 2007-2011
Working Paper	06-08	Ilho YOO	PAYG pension in a small open economy
Working Paper	06-09	Kwon JUNG Clement LIM	IMPULSE BUYING BEHAVIORS ON THE INTERNET
Working Paper	06-10	Joong H. HAN	Liquidation Value and Debt Availability: An Empirical Investigation
Working Paper	06-11	Brandon Julio, Woojin Kim Michael S. Weisbach	Uses of Funds and the Sources of Financing: Corporate Investment and Debt Contract Design
Working Paper	06-12	Hun Joo Park	Toward People-centered Development: A Reflection on the Korean Experience
Working Paper	06-13	Hun Joo Park	The Perspective of Small Business in South Korea
Working Paper	06-14	Younguck KANG	Collective Experience and Civil Society in Governance
Working Paper	06-15	Dong-Young KIM	The Roles of Government Officials as Policy Entrepreneurs in Consensus Building Process
Working Paper	06-16	Ji Hong KIM	Military Service : draft or recruit

* The above papers are available at KDI School Website <<http://www.kdischool.ac.kr/new/eng/faculty/working.jsp>>. You may get additional copy of the documents by downloading it using the Acrobat Reader.

Working Paper Series

<i>Category</i>	<i>Serial #</i>	<i>Author</i>	<i>Title</i>
Working Paper	06-17	Ji Hong KIM	Korea-US FTA
Working Paper	06-18	Ki-Eun RHEE	Reevaluating Merger Guidelines for the New Economy
Working Paper	06-19	Taejong KIM Ji-Hong KIM Insook LEE	Economic Assimilation of North Korean Refugees in South Korea: Survey Evidence
Working Paper	06-20	Seong Ho CHO	ON THE STOCK RETURN METHOD TO DETERMINING INDUSTRY SUBSTRUCTURE: AIRLINE, BANKING, AND OIL INDUSTRIES
Working Paper	06-21	Seong Ho CHO	DETECTING INDUSTRY SUBSTRUCTURE: - Case of Banking, Steel and Pharmaceutical Industries-
Working Paper	06-22	Tae Hee Choi	Ethical Commitment, Corporate Financial Factors: A Survey Study of Korean Companies
Working Paper	06-23	Tae Hee Choi	Aggregation, Uncertainty, and Discriminant Analysis
Working Paper	07-01	Jin PARK Seung-Ho JUNG	Ten Years of Economic Knowledge Cooperation with North Korea: Trends and Strategies
Working Paper	07-02	BERNARD S. BLACK WOOCHAN KIM	The Effect of Board Structure on Firm Value in an Emerging Market: IV, DiD, and Time Series Evidence from Korea
Working Paper	07-03	Jong Bum KIM	FTA Trade in Goods Agreements: 'Entrenching' the benefits of reciprocal tariff concessions
Working Paper	07-04	Ki-Eun Rhee	Price Effects of Entries
Working Paper	07-05	Tae H. Choi	Economic Crises and the Evolution of Business Ethics in Japan and Korea
Working Paper	07-06	Kwon JUNG Leslie TEY	Extending the Fit Hypothesis in Brand Extensions: Effects of Situational Involvement, Consumer Innovativeness and Extension Incongruity on Evaluation of Brand Extensions
Working Paper	07-07	Younguck KANG	Identifying the Potential Influences on Income Inequality Changes in Korea – Income Factor Source Analysis
Working Paper	07-08	WOOCHAN KIM TAEYOON SUNG SHANG-JIN WEI	Home-country Ownership Structure of Foreign Institutional Investors and Control-Ownership Disparity in Emerging Markets
Working Paper	07-09	Ilho YOO	The Marginal Effective Tax Rates in Korea for 45 Years : 1960-2004
Working Paper	07-10	Jin PARK	Crisis Management for Emergency in North Korea
Working Paper	07-11	Ji Hong KIM	Three Cases of Foreign Investment in Korean Banks
Working Paper	07-12	Jong Bum Kim	Territoriality Principle under Preferential Rules of Origin
Working Paper	07-13	Seong Ho CHO	THE EFFECT OF TARGET OWNERSHIP STRUCTURE ON THE TAKEOVER PREMIUM IN OWNER-MANAGER DOMINANT ACQUISITIONS: EVIDENCE FROM KOREAN CASES
Working Paper	07-14	Seong Ho CHO Bill McKelvey	Determining Industry Substructure: A Stock Return Approach
Working Paper	07-15	Dong-Young KIM	Enhancing BATNA Analysis in Korean Public Disputes
Working Paper	07-16	Dong-Young KIM	The Use of Integrated Assessment to Support Multi-Stakeholder negotiations for Complex Environmental Decision-Making
Working Paper	07-17	Yuri Mansury	Measuring the Impact of a Catastrophic Event: Integrating Geographic Information System with Social Accounting Matrix
Working Paper	07-18	Yuri Mansury	Promoting Inter-Regional Cooperation between Israel and Palestine: A Structural Path Analysis Approach
Working Paper	07-19	Ilho YOO	Public Finance in Korea since Economic Crisis

* The above papers are available at KDI School Website <<http://www.kdischool.ac.kr/new/eng/faculty/working.jsp>>. You may get additional copy of the documents by downloading it using the Acrobat Reader.

Working Paper Series

<i>Category</i>	<i>Serial #</i>	<i>Author</i>	<i>Title</i>
Working Paper	07-20	Li GAN Jaeun SHIN Qi LI	Initial Wage, Human Capital and Post Wage Differentials
Working Paper	07-21	Jin PARK	Public Entity Reform during the Roh Administration: Analysis through Best Practices
Working Paper	07-22	Tae Hee Choi	The Equity Premium Puzzle: An Empirical Investigation of Korean Stock Market
Working Paper	07-23	Joong H. HAN	The Dynamic Structure of CEO Compensation: An Empirical Study
Working Paper	07-24	Ki-Eun RHEE	Endogenous Switching Costs in the Face of Poaching
Working Paper	08-01	Sun LEE Kwon JUNG	Effects of Price Comparison Site on Price and Value Perceptions in Online Purchase
Working Paper	08-02	Ilho YOO	Is Korea Moving Toward the Welfare State?: An IECI Approach
Working Paper	08-03	Ilho YOO Inhyouk KOO	DO CHILDREN SUPPORT THEIR PARENTS' APPLICATION FOR THE REVERSE MORTGAGE?: A KOREAN CASE
Working Paper	08-04	Seong-Ho CHO	Raising Seoul's Global Competitiveness: Developing Key Performance Indicators
Working Paper	08-05	Jin PARK	A Critical Review for Best Practices of Public Entities in Korea
Working Paper	08-06	Seong-Ho CHO	How to Value a Private Company? -Case of Miele Korea-
Working Paper	08-07	Yoon Ha Yoo	The East Asian Miracle: Export-led or Investment-led?
Working Paper	08-08	Man Cho	Subprime Mortgage Market: Rise, Fall, and Lessons for Korea
Working Paper	08-09	Woochan KIM Woojin KIM Kap-sok KWON	Value of shareholder activism: evidence from the switchers
Working Paper	08-10	Kun-Ho Lee	Risk Management in Korean Financial Institutions: Ten Years after the Financial Crisis
Working Paper	08-11	Jong Bum KIM	Korea's Institutional Framework for FTA Negotiations and Administration: Tariffs and Rules of Origin
Working Paper	08-12	Yu Sang CHANG	Strategy, Structure, and Channel of Industrial Service Leaders: A Flow Chart Analysis of the Expanded Value Chain
Working Paper	08-13	Younguck KANG	Sensitivity Analysis of Equivalency Scale in Income Inequality Studies
Working Paper	08-14	Younguck KANG	Case Study: Adaptive Implementation of the Five-Year Economic Development Plans
Working Paper	08-15	Joong H. HAN	Is Lending by Banks and Non-banks Different? Evidence from Small Business Financing
Working Paper	08-16	Joong H. HAN	Checking Accounts and Bank Lending
Working Paper	08-17	Seongwuk MOON	How Does the Management of Research Impact the Disclosure of Knowledge? Evidence from Scientific Publications and Patenting Behavior
Working Paper	08-18	Jungho YOO	How Korea's Rapid Export Expansion Began in the 1960s: The Role of Foreign Exchange Rate
Working Paper	08-19	BERNARD S. BLACK WOOCHAN KIM HASUNG JANG KYUNG SUH PARK	How Corporate Governance Affects Firm Value: Evidence on Channels from Korea
Working Paper	08-20	Tae Hee CHOI	Meeting or Beating Analysts' Forecasts: Empirical Evidence of Firms' Characteristics, Persistence Patterns and Post-scandal Changes
Working Paper	08-21	Jaeun SHIN	Understanding the Role of Private Health Insurance in the Universal Coverage System: Macro and Micro Evidence

* The above papers are available at KDI School Website <<http://www.kdischool.ac.kr/new/eng/faculty/working.jsp>>. You may get additional copy of the documents by downloading it using the Acrobat Reader.

Working Paper Series

<i>Category</i>	<i>Serial #</i>	<i>Author</i>	<i>Title</i>
Working Paper	08-22	Jin PARK	Indonesian Bureaucracy Reform: Lessons from Korea
Working Paper	08-23	Joon-Kyung KIM	Recent Changes in Korean Households' Indebtedness and Debt Service Capacity
Working Paper	08-24	Yuri Mansury	What Do We Know about the Geographic Pattern of Growth across Cities and Regions in South Korea?
Working Paper	08-25	Yuri Mansury & Jae Kyun Shin	Why Do Megacities Coexist with Small Towns? Historical Dependence in the Evolution of Urban Systems
Working Paper	08-26	Jinsoo LEE	When Business Groups Employ Analysts: Are They Biased?
Working Paper	08-27	Cheol S. EUN Jinsoo LEE	Mean-Variance Convergence Around the World
Working Paper	08-28	Seongwuk MOON	How Does Job Design Affect Productivity and Earnings? Implications of the Organization of Production
Working Paper	08-29	Ja Eun SHIN	Smoking, Time Preference and Educational Outcomes
Working Paper	08-30	Dong Young KIM	Reap the Benefits of the Latecomer: From the story of a political, cultural, and social movement of ADR in US
Working Paper	08-31	Ji Hong KIM	Economic Crisis Management in Korea: 1998 & 2008
Working Paper	08-32	Dong-Young KIM	Civility or Creativity?: Application of Dispute Systems Design (DSD) to Korean Public Controversies on Waste Incinerators
Working Paper	08-33	Ki-Eun RHEE	Welfare Effects of Behavior-Based Price Discrimination
Working Paper	08-34	Ji Hong KIM	State Owned Enterprise Reform
Working Paper	09-01	Yu Sang CHANG	Making Strategic Short-term Cost Estimation by Annualized Experience Curve
Working Paper	09-02	Dong Young KIM	When Conflict Management is Institutionalized: A Review of the Executive Order 19886 and government practice
Working Paper	09-03	Man Cho	Managing Mortgage Credit Risk: What went wrong with the subprime and Alt-A markets?
Working Paper	09-04	Tae H. Choi	Business Ethics, Cost of Capital, and Valuation
Working Paper	09-05	Woochan KIM Woojin KIM Hyung-Seok KIM	What makes firms issue death spirals? A control enhancing story
Working Paper	09-06	Yu Sang CHANG Seung Jin BAEK	Limit to Improvement: Myth or Reality? Empirical Analysis of Historical Improvement on Three Technologies Influential in the Evolution of Civilization
Working Paper	09-07	Ji Hong KIM	G20: Global Imbalance and Financial Crisis
Working Paper	09-08	Ji Hong KIM	National Competitiveness in the Globalized Era
Working Paper	09-09	Hao Jiang Woochan Kim Ramesh K. S. Rao	Contract Heterogeneity, Operating Shortfalls, and Corporate Cash Holdings
Working Paper	09-10	Man CHO	Home Price Cycles: A Tale of Two Countries
Working Paper	09-11	Dongcul CHO	The Republic of Korea's Economy in the Swirl of Global Crisis
Working Paper	09-12	Dongcul CHO	House Prices in ASEAN+3: Recent Trends and Inter-Dependence
Working Paper	09-13	Seung-Joo LEE Eun-Hyung LEE	Case Study of POSCO - Analysis of its Growth Strategy and Key Success Factors

* The above papers are available at KDI School Website <<http://www.kdischool.ac.kr/new/eng/faculty/working.jsp>>. You may get additional copy of the documents by downloading it using the Acrobat Reader.

Working Paper Series

<i>Category</i>	<i>Serial #</i>	<i>Author</i>	<i>Title</i>
Working Paper	09-14	Woochan KIM Taeyoon SUNG Shang-Jin WEI	The Value of Foreign Blockholder Activism: Which Home Country Governance Characteristics Matter?
Working Paper	09-15	Joon-Kyung KIM	Post-Crisis Corporate Reform and Internal Capital Markets in Chaebols
Working Paper	09-16	Jin PARK	Lessons from SOE Management and Privatization in Korea
Working Paper	09-17	Tae Hee CHOI	Implied Cost of Equity Capital, Firm Valuation, and Firm Characteristics
Working Paper	09-18	Kwon JUNG	Are Entrepreneurs and Managers Different? Values and Ethical Perceptions of Entrepreneurs and Managers
Working Paper	09-19	Seongwuk MOON	When Does a Firm Seek External Knowledge? Limitations of External Knowledge
Working Paper	09-20	Seongwuk MOON	Earnings Inequality within a Firm: Evidence from a Korean Insurance Company
Working Paper	09-21	Jaeun SHIN	Health Care Reforms in South Korea: What Consequences in Financing?
Working Paper	09-22	Younguck KANG	Demand Analysis of Public Education: A Quest for New Public Education System for Next Generation
Working Paper	09-23	Seong-Ho CHO Jinsoo LEE	Valuation and Underpricing of IPOs in Korea
Working Paper	09-24	Seong-Ho CHO	Kumho Asiana's LBO Takeover on Korea Express
Working Paper	10-01	Yun-Yeong KIM Jinsoo LEE	Identification of Momentum and Disposition Effects Through Asset Return Volatility
Working Paper	10-02	Kwon JUNG	Four Faces of Silver Consumers: A Typology, Their Aspirations, and Life Satisfaction of Older Korean Consumers
Working Paper	10-03	Jinsoo LEE Seongwuk MOON	Corporate Governance and International Portfolio Investment in Equities
Working Paper	10-04	Jinsoo LEE	Global Convergence in Tobin's Q Ratios
Working Paper	10-05	Seongwuk MOON	Competition, Capability Buildup and Innovation: The Role of Exogenous Intra-firm Revenue Sharing
Working Paper	10-06	Kwon JUNG	Credit Card Usage Behaviors among Elderly Korean Consumers
Working Paper	10-07	Yu-Sang CHANG Jinsoo LEE	Forecasting Road Fatalities by the Use of Kinked Experience Curve
Working Paper	10-08	Man CHO	Securitization and Asset Price Cycle: Causality and Post-Crisis Policy Reform
Working Paper	10-09	Man CHO Insik MIN	Asset Market Correlation and Stress Testing: Cases for Housing and Stock Markets
Working Paper	10-10	Yu-Sang CHANG Jinsoo LEE	Is Forecasting Future Suicide Rates Possible? - Application of the Experience Curve -
Working Paper	10-11	Seongwuk MOON	What Determines the Openness of Korean Manufacturing Firms to External Knowledge?
Working Paper	10-12	Joong Ho HAN Kwangwoo PARK George PENNACCHI	Corporate Taxes and Securitization
Working Paper	10-13	Younguck KANG	Housing Policy of Korea: Old Paradigm, New Approach
Working Paper	10-14	Il Chong NAM	A Proposal to Reform the Korean CBP Market
Working Paper	10-15	Younguck KANG	Balanced Regional Growth Strategy based on the Economies of Agglomeration: the Other Side of Story
Working Paper	10-16	Joong Ho HAN	CEO Equity versus Inside Debt Holdings and Private Debt Contracting

* The above papers are available at KDI School Website <<http://www.kdischool.ac.kr/new/eng/faculty/working.jsp>>. You may get additional copy of the documents by downloading it using the Acrobat Reader.

Working Paper Series

<i>Category</i>	<i>Serial #</i>	<i>Author</i>	<i>Title</i>
Working Paper	11-01	Yeon-Koo CHE Rajiv SETHI	Economic Consequences of Speculative Side Bets: The Case of Naked Credit Default Swaps
Working Paper	11-02	Tae Hee CHOI Martina SIPKOVA	Business Ethics in the Czech Republic
Working Paper	11-03	Sunwoo HWANG Woochan KIM	Anti-Takeover Charter Amendments and Managerial Entrenchment: Evidence from Korea
Working Paper	11-04	Yu Sang CHANG Jinsoo LEE Yun Seok JUNG	The Speed and Impact of a New Technology Diffusion in Organ Transplantation: A Case Study Approach
Working Paper	11-05	Jin PARK Jiwon LEE	The Direction of Inter-Korean Cooperation Fund Based on ODA Standard
Working Paper	11-06	Woochan KIM	Korea Investment Corporation: Its Origin and Evolution
Working Paper	11-07	Seung-Joo LEE	Dynamic Capabilities at Samsung Electronics: Analysis of its Growth Strategy in Semiconductors
Working Paper	11-08	Joong Ho HAN	Deposit Insurance and Industrial Volatility
Working Paper	11-09	Dong-Young KIM	Transformation from Conflict to Collaboration through Multistakeholder Process: Shihwa Sustainable Development Committee in Korea
Working Paper	11-10	Seongwuk MOON	How will Openness to External Knowledge Impact Service Innovation? Evidence from Korean Service Sector
Working Paper	11-11	Jin PARK	Korea's Technical Assistance for Better Governance: A Case Study in Indonesia
Working Paper	12-01	Seongwuk MOON	How Did Korea Catch Up with Developed Countries in DRAM Industry? The Role of Public Sector in Demand Creation: PART 1
Working Paper	12-02	Yong S. Lee Young U. Kang Hun J Park	The Workplace Ethics of Public Servants in Developing Countries
Working Paper	12-03	Ji-Hong KIM	Deposit Insurance System in Korea and Reform
Working Paper	12-04	Yu Sang Chang Jinsoo Lee Yun Seok Jung	Technology Improvement Rates of Knowledge Industries following Moore's Law? -An Empirical Study of Microprocessor, Mobile Cellular, and Genome Sequencing Technologies-
Working Paper	12-05	Man Cho	Contagious Real Estate Cycles: Causes, Consequences, and Policy Implications
Working Paper	12-06	Younguck KANG Dhani Setvawan	INTERGOVERNMENTAL TRANSFER AND THE FLYPAPER EFFECT – Evidence from Municipalities/Regencies in Indonesia –
Working Paper	12-07	Younguck KANG	Civil Petitions and Appeals in Korea : Investigating Rhetoric and Institutional settings
Working Paper	12-08	Yu Sang Chang Jinsoo Lee	Alternative Projection of the World Energy Consumption -in Comparison with the 2010 International Energy Outlook
Working Paper	12-09	Hyeok Jeong	The Price of Experience
Working Paper	12-10	Hyeok Jeong	Complementarity and Transition to Modern Economic Growth
Working Paper	13-01	Yu Sang CHANG Jinsoo LEE Hyuk Ju KWON	When Will the Millennium Development Goal on Infant Mortality Rate Be Realized? - Projections for 21 OECD Countries through 2050-
Working Paper	13-02	Yoon-Ha Yoo	Stronger Property Rights Enforcement Does Not Hurt Social Welfare -A Comment on Gonzalez' "Effective Property Rights, Conflict and Growth (JET, 2007)"-
Working Paper	13-03	Yu Sang CHANG Changyong CHOI	Will the Stop TB Partnership Targets on TB Control be Realized on Schedule? - Projection of Future Incidence, Prevalence and Death Rates -
Working Paper	13-04	Yu Sang CHANG Changyong CHOI	Can We Predict Long-Term Future Crime Rates? – Projection of Crime Rates through 2030 for Individual States in the U.S. –

* The above papers are available at KDI School Website <<http://www.kdischool.ac.kr/new/eng/faculty/working.jsp>>. You may get additional copy of the documents by downloading it using the Acrobat Reader.

Working Paper Series

<i>Category</i>	<i>Serial #</i>	<i>Author</i>	<i>Title</i>
Working Paper	13-05	Chrysostomos Tabakis	Free-Trade Areas and Special Protection
Working Paper	13-06	Hyeok Jeong	Dynamics of Firms and Trade in General Equilibrium
Working Paper	13-07	Hyeok Jeong	Testing Solow's Implications on the Effective Development Policy
Working Paper	13-08	Jaeun SHIN	Long-Term Care Insurance and Health Care Financing in South Korea
Working Paper	13-09	Ilchong Nam	Investment Incentives for Nuclear Generators and Competition in the Electricity Market of Korea
Working Paper	13-10	Ilchong Nam	Market Structure of the Nuclear Power Industry in Korea and Incentives of Major Firms
Working Paper	13-11	Ji Hong KIM	Global Imbalances
Working Paper	14-01	Woochan KIM	When Heirs Become Major Shareholders
Working Paper	14-02	Chrysostomos Tabakis	Antidumping Echoing
Working Paper	14-03	Ju Ho Lee	Is Korea Number One in Human Capital Accumulation?: Education Bubble Formation and its Labor Market Evidence
Working Paper	14-04	Chrysostomos Tabakis	Regionalism and Conict: Peace Creation and Peace Diversion
Working Paper	14-05	Ju Ho Lee	Making Education Reform Happen: Removal of Education Bubble through Education Diversification
Working Paper	14-06	Sung Joon Paik	Pre-employment VET Investment Strategy in Developing Countries - Based on the Experiences of Korea -
Working Paper	14-07	Ju Ho Lee Josh Sung-Chang Ryoo Sam-Ho Lee	From Multiple Choices to Performance Assessment: Theory, Practice, and Strategy
Working Paper	14-08	Sung Joon Paik	Changes in the effect of education on the earnings differentials between men and women in Korea (1990-2010)
Working Paper	14-09	Shun Wang	Social Capital and Rotating Labor Associations: Evidence from China
Working Paper	14-10	Hun Joo Park	Recasting the North Korean Problem: Towards Critically Rethinking about the Perennial Crisis of the Amoral Family State and How to Resolve It
Working Paper	14-11	Yooncheong Cho	Justice, Dissatisfaction, and Public Confidence in the E-Governance)
Working Paper	14-12	Shun Wang	The Long-Term Consequences of Family Class Origins in Urban China
Working Paper	14-13	Jisun Baek	Effect of High-speed Train Introduction on Consumer Welfare
Working Paper	14-14	Jisun Baek	Effect of High Speed Trains on Passenger Travel: Evidence from Korea
Working Paper	15-01	Tae-Hee Choi	Governance and Business Ethics - An International Analysis
Working Paper	15-02	Jisun Baek	The Impact of Improved Passenger Transport System on Manufacturing Plant Productivity
Working Paper	15-03	Shun Wang	The Unintended Long-term Consequences of Mao's Mass Send-Down Movement: Marriage, Social Network, and Happiness
Working Paper	15-04	Changyong Choi	Information and Communication Technology and the Authoritarian Regime: A Case Study of North Korea
Working Paper	15-05	Wonhyuk Lim William P. Mako	AIIB Business Strategy Decisions: What Can It Do Differently to Make a Difference?

* The above papers are available at KDI School Website <<http://www.kdischool.ac.kr/new/eng/faculty/working.jsp>>. You may get additional copy of the documents by downloading it using the Acrobat Reader.

Working Paper Series

<i>Category</i>	<i>Serial #</i>	<i>Author</i>	<i>Title</i>
Working Paper	15-06	Ju-Ho Lee Kiwan Kim Song-Chang Hong JeeHee Yoon	Can Bureaucrats Stimulate High-Risk High-Payoff Research?
Working Paper	15-07	Seulki Choi	Geographical Proximity with Elderly Parents of Korean Married Women in 30-40s
Working Paper	15-08	Taejun Lee	An Analysis of Retirement Financial Service Providers' Approach to Using Websites to Augment Consumer Financial Acumen
Working Paper	15-09	Sung Joon Paik	Education and Inclusive Growth – Korean Experience
Working Paper	15-10	Sung Joon Paik	Policies to Attract High Quality Foreign Students into Korea
Working Paper	15-11	Changyong Choi June Mi Kang	한·중 ODA 전략 비교 분석: 지식공유사업(KSP) 사례연구
Working Paper	15-12	WooRam Park Jisun Baek	Firm's Employment Adjustment in Response to Labor Regulation
Working Paper	15-13	Jisun Baek WooRam Park	Higher Education, Productivity Revelation and Performance Pay Jobs
Working Paper	15-14	Sung Joon Paik	고급 두뇌인력 네트워크 구축 · 활용 정책 - 국제 사례 분석
Working Paper	15-15	Sunme Lee Yooncheong Cho	Exploring Utility, Attitude, Intention to Use, Satisfaction, and Loyalty in B2C/P2P Car-Sharing Economy
Working Paper	15-16	Chrysostomos Tabakis	Endogenous Sequencing of Tariff Decisions
Working Paper	15-17	Tae Hee Choi	Business Ethics - Evidence from Korea
Working Paper	16-01	Hyeok Jeong Ju-Ho Lee	Korea's Age-Skill Profile from PIAAC: Features and Puzzles
Working Paper	16-02	M. Jae Moon Ju-Ho Lee Jin Park Jieun Chung Jung Hee Choi	Skills and Wages of Public Employees Investigating Korean Bureaucracy through PIAAC
Working Paper	16-03	Taejun Lee	The Role of Psychological Processing and Government-Public Relationship in Managing the Public's Communicative Actions of Problem-Solving
Working Paper	16-04	Shun Wang Wenia Zhou	Do Siblings Make Us Happy?
Working Paper	16-05	Junghee Choi Booyuel Kim Ju-Ho Lee Yoonsoo Park	The Impact of Project-Based Learning on Teacher Self-efficacy
Working Paper	16-06	Hun Joo Park In Wan Cho	Glocalization, Brain Circulation, and Networks: Towards A Fresh Conceptual Framework for Open Human Resource Development System in South Korea
Working Paper	16-07	Changyong Choi Balazs Szalontai	Economic Reform and Export-Oriented Industrialization: An Applicable Model for LDCs?
Working Paper	16-08	Jaehyun Jung Booyuel Kim Hyuncheol Bryant Kim Cristian Pop-Eleches	Long-term Effects of Male Circumcision on Risky Sexual Behaviors and STD Infections: vidence from Malawian Schools
Working Paper	16-09	Ilchong Nam	Collusion in a telecom market in which the entrant raises the price in return for a discount in interconnection charges by the incumbent
Working Paper	16-10	Ji Hong Kim	New Direction of Industrial Policy in Korea
Working Paper	16-11	Ju-Ho Lee Ho-Young Oh Sang Hoon Jee	An Empirical Analysis on the Geography of Korea's High-Tech Jobs and Start-Ups

* The above papers are available at KDI School Website <<http://www.kdischool.ac.kr/new/eng/faculty/working.jsp>>. You may get additional copy of the documents by downloading it using the Acrobat Reader.

Working Paper Series

<i>Category</i>	<i>Serial #</i>	<i>Author</i>	<i>Title</i>
Working Paper	16-12	Shun Wang	Business Cycles, Political Connectedness, and Firm Performance in China
Working Paper	16-13	Seulki Choi	A Study on the Korean Family Structure through Daegu Family Registry 1681~1876; Pre-modern Nuclear Family Theory revisited
Working Paper	16-14	Siwook Lee	International Trade and Within-sector Wage Inequality: the Case of South Korea

* The above papers are available at KDI School Website <<http://www.kdischool.ac.kr/new/eng/faculty/working.jsp>>. You may get additional copy of the documents by downloading it using the Acrobat Reader.