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The Study on the Effect of Trade Openness and FDI on Income Distribution

무역개방과 해외직접투자가 소득분배에 미친 영향 연구

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Contents

Abstract

The aim of this study is to examine the relationship between globalization and income distribution in Korea. In order to identify the key determinants, the study investigates the effects of trade openness, inward and outward FDI flows, and per capita GDP on income distribution. The study uses methodology of unit root and co-integration technique as well as an error correction model over 1992 to 2011 by using annual data. The empirical findings showed that income inequality is reduced as trade openness and the per capita GDP increase. Meanwhile, income inequality is deteriorated as inward and outward FDI flows increased. In addition, the study revealed that the negative effect of inward FDI flows on income inequality is greater than that of outward FDI flows. This result supports the Feenstra and Hanson (1997) hypothesis. Overall the globalization process can be beneficial for the Korean economy, but its nature should be closely monitored regarding income distribution.

Key Words : Globalization, Income inequality, Trade openness, Inward and Outward FDI

Ⅰ. Introduction

For a long time, many countries have been involved in the implementation of policies aimed at achieving economic growth. However, if the gains from economic growth are not shared fairly by all income groups, it would be difficult for them to justify these policies for whatever the reason. In respect of economic growth and income inequality, Kuznets (1955) initially proposed the inverted U-shaped hypothesis regarding aspect of the relationship between per capita income and income inequality. It implies that income inequality is increased as the economy grows. On the other hand, Mundell (1957) hypothesized that an increase of inward FDI reduces income inequality in developing countries. Since Kuznets' and Mundell's attempts, many researches have attempted to find a key determinant of income distribution. However, it is still true that there have been continuous arguments for the impact of globalization on income distribution among researchers.

In general, globalization can be characterized by an increase in international trade and proliferation of FDI (foreign direct investment) among countries. Many studies have argued that the effect of trade openness and FDI flows on income inequality in relatively developed countries are theoretically ambiguous. Considering the effect of globalization on income distribution, income inequality became a vital part of economic growth since the 1990s. As globalization advances, most of researchers made an attempt to find an empirical evidence, such as; Romer (1990), Feenstra & Hanson (1997) and Barro (2000). The argument of Feenstra & Hanson (1997) hypothesis is that income inequality will become worse with increased FDI inflows, which is contrary to the Mundell's hypothesis. In this regard, these earlier researches initiated by Kuznets could become a theoretical framework for this study because the study can be extended to the case of developing countries like Korea regarding progressed globalization in terms of trade openness and an increased FDI flows recently.

In this perspective, this study will establish the model and empirically explore that model to identify that relationship in Korea. This study is a quite different approach compared with earlier studies in that, it particularly takes a profound approach concerning a transition country like Korea, which is now in the phase of becoming a developed country regarding the current amount of international trade and FDI flows. More importantly, this approach will differ from previous

studies in that it underscores the effect of an increase in inward and outward FDI on income distribution instead of focusing on trade openness only. The study also covers a period, which includes some of the most important macroeconomic transformations leading to a more open economy in Korea. It is common knowledge that Korea has promoted trade liberalization and inward FDI since the late of 1990s and outward FDI has dramatically increased over the past decades. Therefore, the rise of this new stream of outward investment by Korea should be explored and discussed in depth. Furthermore, it might be beneficial for policy makers to facilitate sustainable FDI flows promoting economic growth and reducing income inequality in Korea.

First of all, before taking up the main subject, it is necessary to define the meaning of income inequality. In general, it refers to the extent to which income is distributed in an uneven manner among the population in a country. Income inequality between the rich and everyone else, has been growing markedly, by every major statistical measure for many years. The most commonly used measure of income inequality is proxyed by the Gini coefficient (or Gini index), which is measured on a scale of 0 to 1. A Gini coefficient of zero expresses perfect equality, where all values are the same (for example, where everyone has the same income). A Gini coefficient of one expresses maximal inequality among values (for example where only one person has all the income). According to Statistics Korea, the Gini coefficient of Korea fluctuated around 0.277 until 2005, but it has worsened since 2006. The Gini coefficient increased to 0.314 in 2009, and since then it was not much improved. Its index was 0.311 from 2010 to 2012 respectively.

Regrading the trend of Gini coefficient, it is apparent that income inequality in Korea has increased over the past 20 years. This means that the richest group of Koreans increased its share of the total national income, while the poorest group lost its share based on the data of Statistics Korea. In addition, middle-income Koreans lost its share as well. There could be several reasons for this happening. However, the main reasons for the increase in the Gini coefficient includes the following facts that one sector of Korean has enjoyed the economic conditions caused by an increase in security and real estate prices. On the other hand, others have suffered from high unemployment rates since the unprecedented Asian financial crisis and through the global financial crisis.

There are two sides about this critical issue. One is that globalization may have a positive role in ameliorating income inequality, but the other one is that it may have a negative role by aggravating distribution of income. In the positive perspective, it seems that opening a country's

economy by extending international trade in terms of extending of FTA (free trade agreements) and inward FDI can increase the income level. From this point of view, inward FDI can convert developing countries into the developed country's income level. In addition, the expansion of international trade can lead to a high level of growth and increase the income level of developing countries in turn. However, in the other point of view, globalization might have a negative impact on income distribution of the economy. The reason is that globalization could improve the overall income level, but the benefits may not be distributed equally among people and it can even widen the income gap between the rich and the poor.

This study focused on Korea not just because it has accomplished an unusual rate of economic growth, but also because it is encouraging trade liberalization and inward & outward FDI flows during this time period, which is from 1992 to 2011. Korea has relied on trade to support its economy until now. It is also true that Korea has entered into multiple FTA since WTO (world trade organization) was established in 1994. What trade meant here is not merely in form of goods, but also in form of capital. Because globalization spreads around the world, cross-country investment is prevalent in Korea as well.

In this sense, inward and outward FDI flows could play an important role in the development of Korea's economy, but it is not certain how it affects income distribution. Currently, with the increase of Korea's wage, more and more manufacturing companies in Korea have chosen to invest directly in foreign countries to reduce the cost of production. However, the huge outward FDI flows might cause deindustrialization to manufacturing industries in Korea, even though it may increase Korean company's competitiveness overseas. Therefore, from this cause, in all likelihood there will be an acceleration in job losses. That question needs to be discussed in depth in the future.

On this account, unemployment may be an underlying cause of the rising income gap among people. Accordingly, the study will assess how inward and outward FDI flows effect the income distribution levels even though inward FDI flows has been viewed to have a positive effect on income inequality. The rest of the paper is organized as followed. Section 2 reviewed previous works and especially focused on the impact of FDI flows and trade openness on income distribution. Section 3 will specify the model for estimation and describes the data set used in this study. Section 4 presents the empirical evidence of this study. Finally, the paper gives a conclusion in Section 5.

Ⅱ. Literature Review

When the study examines the long-run relationship between economic growth and income distribution, it is natural to analyze the effects of gloabalization of the economy on income inequality. Globalization of the economy might refer to the liberalization of international trade and capital mobility, that is to say free trade and more FDI inflows between countries. Up to the late 1990s, globalization has been interpreted mainly as the magnitude of international trade, but more studies are beginning to pay attention to the issue of FDI flows to examine its effect on income inequality in recent years. But it does not mean that the number of studies on the effect of trade openness on income distribution has mitigated. For example, Barro (2000) ascribes the increase in income inequality to trade expansion and he is also interested in figuring out the role of FDI flows in the global economy. In addition, Aradhyula *et al* (2007) examined the impact of international trade on income distribution by using panel data for 60 countries over a period of 1985-1994. The study reveals that trade increases income inequality in developing countries, but it reduces income inequality in developed countries. Lim and McNelis (2014) also examine the relationship of the Gini coefficient with trade openness by using panel data from 1992 to 2007 for 42 countries and the study found that greater trade openness generates lower income inequality.

There have been many researches to prove the relationship between FDI flows and income inequality within countries. Some studies argue that globalization undermines distribution of income. First of all, Feenstra and Hanson (1997) insisted that FDI inflows lead to a higher wage for skilled workers compared to unskilled workers and consequently expands the inequality among them. Mah (2002) also examined the impact of FDI inflows on income distribution in Korea and found that globalization tends to worsen the income distribution there. Further, Choi (2004) analyzes the relationship between FDI inflows and income inequality within countries and insisted that there was a negative relationship between bilateral FDI inflows and income inequality. Lee (2006) also shows that income inequality increases with FDI flows in 14 European host countries.

Some studies found that FDI inflows might reduce income inequality. First, Mundell (1957) indicated that FDI inflows devote to the diminution of income inequalities in developing countries. Further, Lindert and Williamson (2001) demonstrated that when countries are integrated into the

world economy, income inequality was more affected by the capital movement and it naturally was mitigated. Sato and Fukushige (2009) also examined the determinants of the Gini coefficient for income and expenditure in Korea. They found that the opening of goods markets decreases significantly the income inequality in the short-run as well as in the long-run. Figini and Görg (2011) also reveal that wage inequality increases with an increase of FDI flows in developing countries, while inequality deceases with FDI flows in developed countries.

In addition to the positive and negative aspects on the role of FDI, some results indicate that there are no clear relationships between FDI flows and income distribution. Milanovic (2002) did not find out any significant impact of FDI inflows on income distribution. Furthermore, Herzer and Nunnenkamp (2008) used panel co-integration and causality techniques and found that FDI flows may have a positive short-run effect on income inequality, but the long-run effect of FDI flows on income equality is negative on average in Europe.

An additional element of interest for this study is to re-examine the relationship between inward & outward FDI and income distribution compared to previous studies. Actually, examining the impact of outward FDI flows on income distribution has found much less attention until Altzinger *et al* (2003) discussed this issue in his study. After his attempt, Pradhan (2004) examined the determinants of outward FDI flows. Since then, there have been more attempts to examine the impact of outward FDI on domestic investment, such as Branerhjelm *et al* (2005) and Herzer ad Schrooten (2011). In the end, it could be true that the multitude attempt of these kind of studies have shown the growing interest in the influence of outward FDI flows on income distribution.

From previous empirical works, it is apparent that there have been mixed results on the relationship between globalization and income distribution. However, critically considering the various views, the major question is that what is the long-run relationship that exists among the variables. Therefore, the study will incorporate variables which represent the existing views on determinants of income distribution. So, the study includes trade openness, inward FDI and especially for outward FDI variables into the model to deal with the issue of income distribution.

Ⅲ. Methodology and Data Sources

3.1 Model Specification

The method of analysis and estimating technique used in the study was unit root, co-integration and ECM (error correction model). Many factors have been regarded to influence income distribution. As mentioned earlier, Kuznets (1955) used per capita income variables as a key determinant of income inequality. Barro (2000) found a positive and significant effect of the trade openness on income inequality. More importantly, Mundell (1957) hypothesized that increase of FDI inflows reduces income inequalities in developing countries. On the other hand, Feenstra and Hanson (1997) argued that capital inflows into developing countries will deteriorate the income inequality.

During the last two decades, Korea, like many other developing countries has taken structural reforms in terms of privatization and liberalization policies to improve the standard of living. Therefore, trade openness and FDI flows should be considered as the most important factors regarding globalized Korean economy. Thus, the study treats trade openness and FDI flows as the main determinant factors of income distribution in Korea. This is because many previous studies have used these variables as important determinants regarding globalization. In this perspective, the study will examine and identify these arguments. Finally, investigating the income distribution model by adding outward FDI as important factor for Korea can be written in the following equation (1). Equation (1) can be modified as a linear equation form to identify the multiplicative effect in the levels of the variables in equation (2). This proposed income distribution model takes the following linear equation form to identify the key determinants of income distribution in Korea.

$$GINI = f(OPENNESS, IFDI, OFDI, PCGDP) \quad (1)$$

$$GINI_t = \beta_0 + \beta_1 OPENNESS_t + \beta_2 IFDI_t + \beta_3 OFDI_t + \beta_4 PCGDP + \epsilon_t \quad (2)$$

In here, $GINI_t$ indicates the Gini coefficient of income distribution in the Korean economy at

time t. $OPNENESS_t$ is the trade openness, which is the total trade value as a percentage of GDP. It can be defined as ((export+import)/GDP)×100. $IFDI_t$ is the inward FDI flows as a percentage of GDP. $OFDI_t$ is the outward FDI flows as a percentage of GDP. In addition, $PCGDP_t$ indicates per capita GDP in the Korean economy. Finally, ϵ_t is the error term. From this model specification, the Gini coefficient of income distribution in Korea is expected to have a positive or negative relationship with OPENNESS, IFDI, OFDI and PCGDP. This is because an increase in free trade and FDI flows is expected to reduce or increase the income gap among people, while PCGDP is expected to have a positive effect on income distribution.

3.2 Data Sources

Given the design of this research work, secondary data were collected to conduct an empirical investigation of the determinants of income distribution in the Korean economy. Data on income inequality for Korea was obtained from the Statistics Korea. The data on trade openness of goods and services, which is measured in percentage of GDP, was obtained from UNCTAD. Also, data on inward and outward FDI flows, which are measured in US dollars at current prices and current exchange rates in millions, were also collected from the UNCTAD. In addition, income per capita (PCGDP), which is measured in a thousand current international dollars, is collected from the World Bank.

Ⅳ. Empirical Results and Discussions

This section analyzes the long-run relationship between income distribution and its determinants in Korea. The variables in the model include: Gini coefficient of income distribution, trade openness, inward FDI, outward FDI and per capita GDP. This section also reports the descriptive statistics and empirical results. First, the study reports the descriptive statistics of considered variables and discusses the results of the estimation.

[Table 1] shows the descriptive statistics of the selected variables. It can be observed that all the variables have relatively high variability. This suggests that the variables show high deviation

from their means at the levels, especially in trade openness and PCGDP variables. The method of estimation for this study is the ADF unit root, Johansen co-integration and the ECM analysis. The model examined the time-series properties of the variables using ADF unit root test. In addition, the co-integration test is employed to see whether a long-run relationship among the variables exist. The ECM method is useful when dealing with integrated data, but it can be used with stationary data as well.

[Table 1] Descriptive Statistics of Selected Variables

Variables	Mean	Std. dev.	Min.	Max.
Gini Index	0.279	0.024	0.245	0.314
Openness	38.99	10.29	25.84	58.06
IFDI	5.743	3.449	1.269	10.06
OFDI	3.970	3.336	0.815	11.62
PCGDP	19951.3	4746.2	15405.6	27541.1

4.1 Unit Root Test

In the first stage, in order to find out the proper model, time series data is tested to check whether the model is stationary or not through the unit root test. The underlying assumption in econometric models is that the present time series is stationary. However, if this assumption is not correct, then the whole analysis can not be trusted and the regression becomes spurious. Therefore. it is needed to test whether the data is stationary or not.

[Table 2] ADF Unit Root Test for Selected Series in Level

Variables	With Intercept			With Trend and Intercept		
	Level			Level		
	ADF	1%	5%	ADF	1%	5%
Gini	-1.0776	-3.8315	-3.0299	-2.6288	-4.5325	-3.6736
Openness	-0.6386	-3.8315	-3.0299	-2.8622	-4.5326	-3.6736
IFDI	-0.0805	-3.8315	-3.0299	-2.7022	-4.5325	-3.6736
OFDI	-0.3975	-3.8574	-3.0404	-2.7119	-4.7284	-3.7574
PCGDP	-0.2446	-3.8315	-3.0299	-3.3142	-4.5326	-3.6736

Note: Here, ADF indicates Augmented Dickey-Fuller test statistic and 1% and 5% indicate a critical value.

In the literature, two tests are generally applied to find out the order of integration, but this study applied the ADF unit root test. This test has been used to test the unit of the concerned variables. In this study, ADF test has been performed both in the levels and first differences with respect to intercept and trend & intercept. If the variable is stationary at the level, it is integrated of order zero, that is I(0). [Table 2] shows the result of unit root test based on level data. The test result indicated that ADF value is less than critical value both in 1 and 5 percent significance level, which implies that it is not stationary at the level. Therefore, the study conducts the unit root test with respect to first difference in terms of intercept and trend & intercept.

[Table 3] shows that the ADF values of all variables are greater than the critical value and all variables are statistically significant. The result implies that all variables of Gini, Openness, IFDI, OFDI and PCGDP are stationary at the first difference. It is integrated of order one, that is I(1) at 1 and 5 percent level of significance. In summary, it is quite apparent that all variables are non-stationary in their level, but they all become stationary after the first difference. Since all variables turned out to be integrated of the same order, the study can carry out Johansen co-integration analysis.

[Table 3] ADF Unit Root Test for Selected Series in 1st Difference

Variables	With Intercept			With Trend and Intercept			Lag
	1st Difference			1st difference			
	ADF	1%	5%	ADF	1%	5%	
Gini	-4.4361	-3.8574	-3.0404	-4.5715	-4.2975	-3.6908	I(1)
Openness	-5.4468	-3.8574	-3.0404	-5.3420	-4.5716	-3.6908	I(1)
IFDI	-4.6547	-3.8574	-3.0404	-4.5715	-4.5393	-3.6908	I(1)
OFDI	-4.4406	-4.0041	-3.0988	-4.8864	-3.8289	-3.5584	I(1)
PCGDP	-5.1152	-3.8574	-3.0404	-4.9521	-4.5716	-3.6908	I(1)

Note: Here, ADF indicates Augmented Dickey-Fuller test statistic and 1% and 5% indicate a critical value.

4.2 Co-integration Test

One of the specific objective of this study is the determination of the existence of a long-run relationship between Gini coefficient and other explanatory variables in the Korean economy. Then, the study performs the co-integration test to identify whether there exists a long-run

relationship among the variables. The long-run relationship cannot be achieved in absence of the co-integration among them, which creates the link between the integration process and the concept of steady-state equilibrium. The original co-integration regression can be specified as followed equation form (3);

$$GINI_t = \beta_0 + \beta_1 OPENNESS_t + \beta_2 IFDI_t + \beta_3 OFDI + \beta_4 PCGDP + e_t \quad (3)$$

[Table 4] shows the results of co-integration test and demonstrates that there exists a co-integrating vector among variables. Test results indicated that the null hypothesis of no co-integration is rejected, because the estimated test statistics is bigger than the critical values at the 5 percent significant level. This implies that there is a long-run relationship among the variables and all variables are co-integrated of same order in the long-run. Finally, due to the existence of co-integration, the study can move on to the next stage.

[Table 4] Johansen Multi-variate Co-integration Test.

Null Hypo. (H0)	Trace Statistics	Critical Value(0.05)*	Prob.**	Max-Eigen Statistics	Critical Value(0.05)*	Prob.**
R=0	119.5479	69.81889	0.0000	72.81954	33.87687	0.0000
R≤1	46.72833	47.85613	0.0636	23.36285	27.58434	0.1585
R≤2	23.36548	29.79707	0.2285	11.82874	21.13162	0.5467
R≤3	11.53764	15.49471	0.1805	10.83705	14.26460	0.1626
R≤4	0.699693	3.841466	0.4029	0.699693	3.841466	0.4029

Notes: 1) Trace test indicate 1 co-integating eqn(s) at the 0.05 significant level
2) Max-eigenvalue test indicates 1 co-integrating eqn(s) at the 0.05 significant level
3) * denotes rejection of the hypothesis at the 0.05 significant level
4) ** denotes Mackinnon-Haug-Michelis(1999) p-values.

4.3 Error Correction Model

According to Engle and Granger(1987), if all considered variables are found to be co-integrated, then there must be an association with ECM. The usual ECM may have the following equation form (4);

$$GINI_t = \gamma_0 e_{t-1} + \sum \beta_j \triangle GINI_{t-j} + \sum \beta_1 \triangle OPENNESS_{t-j} + \sum \beta_2 \triangle IFDI_{t-j} + \sum \beta_3 \triangle OFDI_{t-j} + \sum \beta_4 \triangle PCGDP_{t-j} + v_t \quad (4)$$

Where, Δ denotes the first difference operator, e_{t-1} is the error correction term; t is the number of lags, which is require to obtain white noise and v_t is another random disturbance term. If $I(0)_t$ is significantly different from zero, then dependent variables (GINI) and the explanatory variables will have a relationship which establishes co-movement among them. The error correction term (e_{t-1}) expresses the extent of disequilibrium among the endogenous and explanatory variables. Therefore, the ECM model reveals that the changes in $GINI_t$ is not only its own lagged variables, but also a function of the lagged changes in $IFDI_t$, $OFDI_t$, $OPENNESS_t$, and $PCGDP_t$. The ECM is very appealing, because it has its ability to induce flexibility by combining the short-run and long-run dynamics in a unified system. In addition, the consistency and efficiency of estimate of the parameters of ECM make the model more dynamic.

[Table 5] The Results of ECM

Variables	Coefficient	t-statistic (p-value)
ECM(-1)	-0.2301**	(-1.6822) (0.044)
ΔOPENNESS(-1)	-0.0027***	(-44.364) (0.000)
ΔIFDIS(-1)	2.60E-07***	(10.369) (0.000)
ΔOFDIS(-1)	1.91E-07***	(12.323) (0.000)
ΔPCGDP(-1)	-2.86E-06***	(-11.249) (0.000)
Constant	0.0009	(0.0865) (0.998)
F-statistic	31.677***(0.000)	
R2	0.6733	
Durbin-Watson Statistic	1.9950	

Note: Here *** indicates statistically significant at 1% level of significance respectively, t-statistics are in first parentheses and p-value are in second parentheses.

The empirical results of ECM is in [Table 5]. The Gini coefficient (GINI) is regressed on the trade openness, inward and outward FDI and per capita GDP. There are two critical things regarding the effectiveness of the ECM model in terms of the sign of the ECM term and its significance. If the sign turns out to be negative, it implies that the equilibrium is stable and then the ECM term should become significant. The associated coefficient of the ECM has a negative

sign and it is a significant at the 5 percent significant level. The ECM coefficient -0.2301 implies the speed of converge to equilibrium at 23 percent of the past years deviation from equilibrium. This adjustment is essential for maintaining the long-run equilibrium reducing the existence of disequilibrium over time.

[Table 5] shows that some of the coefficients have the expected signs, but others do not. Simply, the result shows that ΔGINI depends on changes in all the variables and also on the equilibrium error term. This is because the ECM is non-zero. The term is expected to be negative, which implies that the GINI is below equilibrium or below optimal level. Consequently, some changes in the variables are necessary to restore the equilibrium. First, a unit increase in trade openness reduces income inequality. This satisfies the theoretical expectation. When trade grows, income increases, and in turn it improves the distribution of income. This result supports the outcome of Lim and McNelis' (2014) hypothesis.

The per capita GDP was also found to have narrowed the inequality gap. Meanwhile, it was a little surprise to see the results of the coefficient of inward and outward FDI flows because the coefficient of inward and outward FDI flows turned out to be both positive. It implies that when the inward and outward of FDI increases, it is likely to augment income inequality among people. An increase in inward FDI might be related to an increase income of skilled worker compared to unskilled worker. As a result, it expands wage gap between them. The results also showed that the effect of inward FDI flows on income inequality is larger than that of outward FDI flows. This result might be interpreted that the inward FDI flows are connected with job losses in the current industry in a source country and thus leads to more income inequality than outward FDI flows. The relationship of FDI flows to income distribution observed in this study supports the argument of Feenstra and Hanson's (1997) hypothesis. To sum it up, these results imply that Korea has more equal income distribution as trade openness and per capita GDP increases, but the same explanation can not apply to an increase of inward and outward FDI inflows.

V. Conclusions

This study investigates the effect of globalization, from the viewpoint of inward and outward FDI flows and an increase in trade openness, on income inequality in Korea by using the annual data over 1992-2011. The empirical results show that an increase in trade openness and PCGDP have a negative coefficient and are statistically significant. These results imply that an increase in trade openness and PCGDP reduce income inequality. However, there are a long-run positive relationship between inward & outward FDI flows and income distribution and are statistically significant. It denotes that inward and outward FDI flows proliferate the income inequality among people. Therefore, the bottom line of this study is that as trade openness increases the income of each country, it reduces income inequality. Meanwhile, inward and outward FDI flows deteriorates income inequality in transition stage from developing country to developed country like Korea.

Generally speaking, it is true that the gap of income distribution between the rich and the poor is getting wider in Korea. Particularly, the income disparity between the rich and the poor has been growing since the mid-1990s. Overall, the study results suggest that the progress of globalization tends to degenerate the situation of income inequality in Korea, which supports the Feenstra and Hanson's (1997) hypothesis instead of supporting Mundell's (1957) hypothesis. The findings of this study also has something in common with the recent empirical analysis of Mah (2002) and Choi (2004) for Korea and Zhang and Zhang (2003) for China and Taylor & Driffield (2004) for the United Kingdom which all argue that inward FDI inflows tends to deteriorate income distribution.

Regarding this study, it is true that there is a lack of consistency in results across different countries. Whether inward FDI and outward FDI helps or hinders income inequality is not solely dependent on the development stage of a particular country as the study mentioned in the literature review on the case of the developed and developing countries. In this regard, the study can also conjecture that probably other factors, such as FTA can play a pivotal role with respect to inward and outward FDI flows. The reason is that there has been a significant upsurge in annual inward and outward FDI in Korea made by FTA with others.

Future research might be extended to examine the relationship between FTA and FDI flows regarding distribution of income in Korea. The reason is that many countries are usually investing

enormous amount of money when FTA established between countries. Further, it might be a useful research by incorporating comparative analysis with other countries to examine the effect of inward and outward FDI on income inequality. The time period I used in this study is a little bit short, but I hope that sufficient data will have been accumulated to allow a historical data analysis in the near future.

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국문초록

무역개방과 해외직접투자가 소득분배에 미친 영향 연구

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본 논문은 무역개방의 확대와 해외직접투자로 인한 세계화의 확대가 한국의 소득분배에 미친 영향을 분석하였다. 따라서 본 연구는 소득분배의 불평등과 관련하여 중요한 결정요인이 무엇인가를 밝혀내기 위해 기존의 연구에서 중요한 결정요인으로 간주한 무역개방, 1인당 개인소득은 물론 FDI에 중점을 두었으며, 이를 국내 유입된 FDI와 해외로 유출된 FDI로 구분하여 모형을 분석하였다. 본 연구는 이를 위해 1992년부터 2011년까지의 매년의 시계열 자료를 가지고 단위근과 공적분 검정, 그리고 오차수정모형도 실행하여 분석하였다.

분석결과에 따르면, 무역개방과 1인당 GDP의 증가는 한국의 소득분배에 긍정적인 영향을 준 것으로 나타났다. 이는 수출의 증가로 인한 무역개방의 확대가 소득의 증가를 가져오는 동시에 소득분배의 형평성을 제고시켰다고 할 수 있다. 반면에 FDI의 경우를 보면, 국내로 유입된 해외직접투자와 해외로 유출된 FDI 모두 소득분배의 불평등을 야기한 것으로 나타났다. 결국 FDI 유입과 유출이 확대되는 경우 소득분배의 불평등이 더욱 증가하였음을 의미한다고 하겠다. 또한 분석결과, 국내로 유입된 FDI가 해외로 유출된 FDI보다 소득분배의 불평등에 더 부정적인 결과를 초래한 것으로 나타났다. 이 결과는 Freenstra and Hanson (2007)의 가설과 일맥상통하는 점이 있다. 따라서 정책입안자는 FDI 유입정책과 관련하여 좀 더 실용적인 정책을 마련하는 것이 필요하다고 할 수 있다.

주제어 : 세계화, 소득불평등, 무역개방, 해외직접투자 유입과 유출

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