

# DSA Annual Conference 2009: Contemporary Crises and New Opportunities

## **Opportunities for Development during Global Recession: Outward FDI from Emerging Economies to Developed World: a win-win strategy**

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### **Abstract**

Declines in asset prices, drying up of liquidity in a number of funding markets, and shrink in demands are the results of the recent global financial crisis. While the stress is now intensified in developed world, the next hit will be the low-income countries due to the prospects of a drop in income from cheaper commodity prices, a fall in growth-enhancing economic catalysts such as inward Foreign Direct Investment (FDI), and a slower rate of export income. However, the world is not divided only into rich and poor countries. Lined in between are 95 middle-income developing countries including Brazil, Russia, India, and China (BRICs) whose economic environments, though being affected by the global financial crisis, still look promising for further growth. This paper proposes that these middle-income developing countries especially BRICs could take actions that might promote their economic development as well as help alleviate the adverse effects from the global financial crisis through making an outward Foreign Direct Investment (FDI). Using the Investment Development Path framework and the concept of Juglar Cycles, this paper suggests that the outward FDI aimed for *efficiency-seeking* and *asset-seeking* purposes could benefit home

developing countries, especially in restructuring the dynamic change of comparative advantages and transferring technology.

The outward FDI from the middle-income countries during the crisis time could also benefit from the currency depreciations and falling asset prices in major developed countries which rendered the cost of their outward FDI even cheaper. For developed countries, the injection of foreign capital would ease the liquidity problem in their economies e.g. facilitating on raising new equity capital and initiating mergers and acquisitions (M&A) activities. This private-sector solution also leads to the reduction of the burden on tax payers in restoring an ailing economy. Moreover, it could prevent poverty problem because as long as the rich economies are doing well in withstanding the crisis, the adverse effect on poverty in low-income countries would be less.

To support this argument, this paper draws on the experience of South Korea during the time when it was regarded as middle-income developing country until recently when it has been included in the group of high-income countries. This paper reports the results of Growth Regressions examining the effects of FDI (both inward and outward directions) on Gross National Income (GNI), drawing on South Korea's quarterly time series data covering period Q1: 1980 ó Q4: 2007. The empirical model is derived from the Cobb-Douglas production function. The estimation method adopted is the 2-Stage Least Square (2SLS) with higher Auto-Regressive (AR) terms. This method addresses the problems of endogeneity, omitted variables, and serial correlation. The results in the main regression show that the outward FDI coefficient is positive and significant, and the same goes to the domestic investment and labour force coefficients. However, the inward FDI coefficient derived is not significant. The breakdown analysis also shows the variation of the impact of inward and outward FDI on different stages of economic development. Extending from this paper, future works could undertake the panel growth regression in the same manner in order to investigate the influence of each type of FDI on the economic growth across the development path. Analysing such results under the framework of Investment Development Path would bring the better insight for policy makers in development areas.

## **I. Introduction**

There is a growing concern that the recent global financial crisis originated in advanced economies would eventually cause a severe upshot on less-developing countries. This anxious anticipation is justified by the fact that the rate of growth of output in the developing countries, in the past hundred years, has largely depended on that of the developed countries. The rate of growth of the former is largely controlled by that of the latter through international trade and Foreign Direct Investment (FDI). Therefore, if the developed countries are to face the reduction of output like what is now happening, the rate of growth in the developing countries, particularly in the low-income countries, will inevitably decrease. This linkage is unavoidable especially in the world where capitalism prevails. (Lewis, 1979) Early this year, the major international organisations overseeing the global economy and development have firmly announced the loomed prospect of global economy especially on the outlook of poverty reduction. Evidently, the longer the crisis persists the more likely the poor countries will severely suffer as a result since they have less safety social net.

Even the crisis is known to be the global crisis, not all economies have been damaged by its impact. The area where the economic strength still remains, though with the lesser extent than before, is the fast-growing emerging markets such as Brazil, Russia, India and China (BRICs) and some other upper-middle income developing countries. On top of the solutions suggested by experts and practitioners in the area, this paper proposes that these upper middle-income developing countries especially BRICs could act decisively to help resolving this anticipated economic problem at least in the short to medium term. It argues that outward FDI from strong emerging countries could sustain their economic development as well as help alleviate the adverse effects anticipated to occur in the low-income countries resulted from the global financial crisis.

The proposition is based on two grounds. One is the theoretical consideration which is built on the Investment Development Path devised by Dunning (1981) and the Juglar Cycles proposed by Juglar (1889). Another is the empirical fact drawn from the income regression at 10% level using South Korea quarterly times series data over the period from Q1:1980 to Q4:1997. To gain a better insight of the dynamic relationship between variables in question particularly

outward and inward FDI over time, the paper offers a break-down analysis by dividing the main regression into two sub-periods, 1980-1995 and 1996-2007. Whereas the former period refers to early-to-middle stages of development, the latter refers to the higher stage of development. It is found that estimated coefficient of the domestic investment is the most robust since it gives positive and significant results for all regressions. The inward FDI coefficient in the main regression is not significant; however, it is positive and significant in the sub-period regressions. Its magnitude decreases from the former period to the latter. On the other hand, the outward FDI coefficient gradually gains the strength over time. While it turns out negative and significant at the early stage of development, it contributes more to the change of the national income at the later stages. It is also found that an increase in labour force benefits the development of South Korean's economy even though its magnitude decreases recently. Lastly, the financial crisis in 1997 did clearly have a bad effect on the economy.

The paper is organised as follows. In section II, the methodology of attaining the empirical evidence is elaborated and the results are presented. Section III provides the analytical framework. The implication for the current crisis and the opportunities for the development given from analysing the empirical results under the proposed theoretical framework are presented in section IV. Finally, the conclusion and future work are drawn in section V.

## **II. Model and Results**

### **2.1 Theoretical Model**

The objective of this income regression is to examine the effect and magnitude of different types of investment namely domestic investment, inward FDI and outward FDI on the Gross National Income (GNI)<sup>1</sup>. The theoretical model is derived from the standard Cobb-Douglas production function. However, as we have various types of the same factor of production i.e. different types of investment, the Cobb-Douglas production function takes the form of multiple

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<sup>1</sup> The GNI is purposely chosen in stead of the Gross Domestic Products (GDP). Foreign Direct Investments involve capital movements which, in principle, should generate profits for investors. This implies that part of revenue from such investment is inevitably repatriated to the country of foreign investors. It is, therefore, more appropriate to use per capita GNI since this indicator takes into account an adjustment of the income inflows and outflows of the country.

types of factors proposed by Jorgensen and Griliches (1967). Equation (1) shows the theoretical model.

$$Y_t = f(A_t K_{dt}^\alpha K_{in,t}^\delta K_{out,t}^\beta L_t^{(1-\alpha-\delta-\beta)}) \quad (1)$$

Where,  $Y$  is the Gross National Income,  $A$  is the technology,  $K_d$  is the domestic investment,  $K_{in}$  is the inward FDI,  $K_{out}$  is the outward FDI,  $L$  is the homogenous labour force, and  $t$  depicts the time. To maintain the constant return to scale assumption, the following conditions must hold,  $0 < \alpha, \delta, \beta < 1$  and  $\alpha + \delta + \beta = 1$ .

## 2.2 Empirical Model

Regression analysis is the common empirical approach for the function denoted by equation (1). However, the efficiency of regression analysis is at best when dealing with linear model; therefore, it is necessary to linearise the theoretical function by transforming it into the natural logarithmic form. As a result, a general functional form of the growth regression model is described as follows:

$$\begin{aligned} \Delta \ln(gni)_t &= c + \alpha \Delta \ln(dinv)_t + \delta \Delta \ln(ifdi)_t + \beta \Delta \ln(ofdi)_t \\ &+ (1 - \alpha - \delta - \beta) \Delta \ln(lb)_t + crisis + u_t \end{aligned} \quad (2)$$

Where,

$\Delta$  = first difference operator<sup>2</sup>

$\ln$  = natural logarithm

$t$  = time 1, ...,  $t$

$c$  = constant term

$gni$  = Gross National Income (mil US\$)

$dinv$  = domestic investment measured by the amount of Gross Fixed Capital Formation (million US\$)

$ifdi$  = stock of inward FDI (million US\$)

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<sup>2</sup> Unit root test shows that the time series data in level is non-stationary. This suggests that the data is stationary at first difference level.

<i>ofdi</i>	= stock of outward FDI (million US\$)
<i>lb</i>	= labour force (thousand)
<i>crisis</i>	= dummy variable for financial crisis running from Q2:1997 to Q2:1998
<i>u</i>	= error term

### 2.3 Estimation Technique

In growth regressions, the error term in equation (2) accounts for what have been left unexplained by the set of explanatory variables while the growth accounting methods, this part is regarded as Total Factor Productivity (TFP). For income regression, it is the variant of growth regression. Its error term still captures the part that is left unexplained by the explanatory variables incorporated in the model. Since both Neo-classical and endogenous growth theories state that there is a relationship between investment and the Total Factor Productivity presented by the error term. (Denoted by  $A$  in equation (1) and  $u_t$  in equation (2)) Then, it is obvious that we are dealing with a function where the endogenous explanatory variables are correlated with the innovation which is the error term,  $u_t$ . Econometric literature regards this as *endogeneity* problem<sup>3</sup>. Therefore, the Ordinary Least Square (OLS) is not appropriate in this context as it no longer gives unbiased and consistent estimates. (Wooldridge, 2002)

Among other possible estimation techniques, the Two Stage Least Square (2SLS) is employed since it is capable of correcting the endogeneity problem and its methodological procedure is the most straightforward. Moreover, Bollen, et al, (2007) suggested that when taking into account the efficiency of estimation methods where the full information of the true model is very limited, the use of the 2SLS is more appropriate than the Maximum Likelihood Method as it yields more robust results. With regards to the instrumental variables, the past value of exchange rate, the discount rate and the consumer price index<sup>4</sup> are used. The reason is that, in theory, investors would take the information relating to these three factors into consideration when they decide whether or not to pursue an investment project. Moreover and most

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<sup>3</sup> It refers to the situation where one or more explanatory variables correlate with the error term.

<sup>4</sup> The authors are aware that most of the empirical literatures in Growth empirics tend to use the past value of investment as its own instrumental variable. However, there is a direct relationship between the past values of investment such as those of domestic investment or FDI and the Total Factor Productivity,  $u_t$  this paper therefore proposes the use of other variables instead.

importantly, these three variables do not virtually correlate with their change in Total Factor Productivity.

Another concern when using the economic time series analysis is that their present value normally correlates with their past value causing the serial correlation problem. This problem is addressed by introducing the Auto-Regressive (AR) terms to the equation (2) to ensure that the model would not suffer such problem. The statistical package used for the empirical test is Eviews 6 whose special commands for 2SLS allow performing each of the two stages explicitly.

## 2.4 Data

The period for which the quarterly data<sup>5</sup> covers is from year 1980 to 2007 which gives 112 numbers of observations. The data are taken mainly from the *International Financial Statistics (IFS)* published by the International Monetary Fund (IMF) and the online statistical database published by the United Nations Conference on Trade and Development (UNCTAD). Most time series data normally contain unit roots which breach the stationary property. Unless this is addressed, the empirical analysis will give spurious results. To ensure the robustness of the empirical analysis, the unit root test was run on each time series data. The results from the unit root test suggest using data in first difference form for the analysis.

## 2.5 Results

Table 1 shows the estimated coefficients obtained from running income regressions on South Korean data over the three different periods. Column (2) shows the coefficients from the main regression using the data covering 1980-2007. As to test whether the effect and magnitude of each variable varies over time, the 1980-2007 data were divided into two sub-periods: 1980-1995 and 1996-2007. The income regressions were separately run and presented in columns (3) and (4), respectively. South Korea's income per capita status during year 1980-1995 exhibited

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<sup>5</sup> The time series data is mostly available quarterly except those from the stock of inward and outward FDI. The data of these two series have been converted from annually to quarterly using the quadratic-match sum which allows the data spread in the same manner as the Gross Fixed Capital Formation which represents domestic investment.

a path from the low-income to the upper middle-income status and the country's value of the stock of outward FDI is less than or around 10,000 million US\$<sup>6</sup>. In 1996-2007, South Korea's income per capita moved from upper-middle income status to high-income status even though there was the fluctuation during the crisis years<sup>7</sup>. It is observed that there was a significant increase in the stock of outward FDI during year 1996-2007. The report on the robustness check such as the residual tests and the goodness of fit indicator can also be found in the same table.

TABLE 1: THE ESTIMATED COEFFICIENTS OF GROWTH REGRESSION TESTED ON SOUTH KOREA AT 10% LEVEL

<b>Explanatory Variables (1)</b>	<b>South Korea 1980-2007 (2)</b>	<b>South Korea 1980-1995 (3)</b>	<b>South Korea 1996-2007 (4)</b>
<i>dlog(dinv)</i>	0.1744 (0.003)	0.6308 (0.000)	0.4566 (0.000)
<i>dlog(ifdi)</i>	-0.3279 (0.193)	0.3635 (0.004)	0.1325 (0.006)
<i>dlog(ofdi)</i>	0.1700 (0.095)	-0.2761 (0.012)	0.1723 (0.000)
<i>dlog(lb)</i>	2.8692 (0.013)	3.8700 (0.001)	0.8223 (0.264)
<i>crisis</i>	-0.0598 (0.108)	N/A	-0.0864 (0.042)
<b>LM test for serial correlation*</b> [p-value]	[0.2399]	[0.2430]	[0.1933]
<b>Harvey test for heteroskedasticity**</b> [p-value]	[0.0612]	[0.0796]	[0.1809]
<b>Normality: Jacques-Bera Statistics***</b> [p-value]	[0.0004]	[0.7300]	[0.9979]
Second stage SSR	0.276734	0.02227	0.05090
R-Square	0.99136	0.99907	0.99146
Number of observations after adjustment <sup>2)</sup>	91	56	40

\* Ho = no serial correlation

\*\* Ho = no heteroskedasticity

\*\*\* Ho = normally distributed

1) P-value is shown in the bracket

2) A drop in number observations is due to the fact that Eviews 6 uses the iterative approach to run the 2SLS

3) The raw data is available and can be requested by sending an email to the corresponding author

<sup>6</sup> In 1995, the value is only slightly over 10,000 million US\$; therefore, we do not include this year in the second period.

<sup>7</sup> South Korea faced severe financial and currency crisis in 1997

The residual tests from each regression satisfy the key assumptions as the null hypothesis of no serial correlation and no heteroskedasticity is not rejected. Only the normal distribution is problematic. While the error term in the main regression follows normal distribution the other regressions do not meet this assumption. However, this does not necessary mean that the coefficients derived from the test are not robust. Yet, it is true that the sub-periods regressions appear to be less efficient compared to the main one but the coefficients are still worth taking as an indication if not for the precision. Wooldrige (2002) suggested the second-stage Sum of Square Residual can also be used for diagnostics test. Although the second-stage Sum of Square Residual of the first regression which covers the whole period is relatively high compared to the other two, it still sits in the acceptable region. For the goodness of fit, the R-Square value remains high for all regressions. The results are therefore considered valid.

From Table 1, it is obviously seen that the domestic investment variable gives the most robust coefficient. This is because it gives a positive and significant estimated coefficient for all regressions. It appears that the domestic investment consistently plays an important role in South Korean economic development. Next, the inward FDI coefficient varies from one regression to another. At the early stage of its economic development, a positive and significant estimated coefficient indicates that the inward FDI did significantly contribute to an increase in the South Korean Gross National Income. The magnitude of the inward FDI coefficient decreases by more than half during the year 1996-2007; however, it remains positively significant. The crisis in 1997 which led to the shift in exchange rate regime could well explain this. The Korean Won depreciated by 100 percent<sup>8</sup> during 1996-1997 causing a huge volume of inward FDI. The inflow of FDI in South Korea during that time was clearly not induced by the efficiency. It was rather due to the currency distortion which rendered South Korean Domestic assets relatively cheap for foreign investors. For the main regression presented in column (2), the inward FDI coefficient turns out insignificant. In short, the evidence indicates that the contribution generated from the inward FDI passes off as South Korean economy evolves.

While the magnitude of inward FDI coefficient is diminishing over time, it is astonishing to see the outward FDI coefficient strengthening. This finding is the highlight of the paper. During

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<sup>8</sup> The nominal exchange rate of KRW/USD was 884.2 in 1996 and 1695 in 1997

1980-1995, the outward FDI coefficient turns out to be negative and significant while later in the following sub-period 1996-2007, it becomes positive and significant. Intuitively, it can be explained that, at the early stage of development, outward direct investment may do harm to domestic economy as it would deprive the domestic investment. Whereas at the later stage of development, the economy becomes more mature and some sectors of the economy generate the surplus large enough to fund both domestic as well as foreign projects. During this time, South Korean stock of outward FDI increased significantly by more than six folds. It was only US\$ 13,828 in 1996 but then it reached the level of US\$ 66,220 in 2007. Within the period of ten years, South Korean managed to increase its outward stock of investment considerably. Not only the outward direct investment project brought South Korean the economic benefit as will be discussed in the following section, but the outflow of capital is also obviously one of the sources of foreign income for its economy. The labour coefficient is positive in all regressions reflecting the importance of human capital in the process of economic development. However, only in the sub-period regression of the year 1996-2007, the coefficient is not significant and this may be due to the decrease in labour supply caused by a drop in population growth<sup>9</sup>. Lastly, the dummy variable capturing the financial crisis in 1997 shows that the crisis has negative impact on the growth of South Korean economy.

### **III. Analytical Framework**

Before discussing about the implication of the empirical findings in the recent global crisis, it is essential to briefly review the literature that serves as the analytical framework. In essence, there are two concepts which are necessary for the analysis in this study. The first concept is the Investment Development Path (IDP) posited by Dunning (1981) which has further been elaborated by Dunning (1986, 1988, 1993, and 1997), Dunning and Narula (1996) and Buckley and Castro (1998). The second concept is Juglar Cycles proposed by Juglar (1889).

#### **3.1 Investment Development Path**

The concept of Investment Development Path (IDP) was proposed by Dunning (1981). He stated that the pattern of FDI and the process of economic development evolve and change

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<sup>9</sup> The authors would like to thank Assistant Professor Dr. John Cameron for his contribution on the labour coefficient given at the DSA conference 2009.

over time. Lall (1996) reformulated Dunning's IDP concept that it is based on two assumptions. One is that the economic development naturally triggers the structural changes in the economy. Another is that these changes entail a dynamic relationship between each type of FDI and the impacts across the economy's development path.

The IDP comprises five stages. The first stage refers to the very early stage of development where the income per capita of the country is very low and the capital is scarce. The inflow of FDI in this stage does not virtually exist but it is set to grow. The second stage of the IDP refers to the scenario where the country starts receiving the inflow of FDI significantly. The capital imported during these stages (the first and the second stages) serves the main purpose of closing the saving-investment gap in the host economy. For the foreign investors, their direct investments are mostly meant either for benefiting from the location-specific advantages such as natural resources, cheap labour or for capitalizing their firm specific-advantages in the growing emerging markets.

It is the third stage that the country begins to export its capital through making an outward FDI. This is because the indigenous firms have, to a certain degree, accumulated and built their firm-specific advantages over the first two stages. It is essential to note that Dunning (1981) implicitly assumed that there are some forms of technological spillovers taking place in the stages prior to this one. However, in the third stage, the country remains the net receiver of FDI. As the outward FDI in this stage is of particular interest in this paper, its functions and implications for the host emerging economies will be discussed.

There are two broad motivators of an outward FDI. One is the efficiency-seeking FDI which could be explained by Dunning OLI paradigm. Also, this type of outward FDI may serve as a means to relocate the once competitive domestic industry to foreign territory whose economic environment still offers more favourable return on investment. For example, as the economy evolves, the minimum wages tend to rise and it may lose competitiveness in labour-intensive industries. Another is the asset-seeking FDI which is unique to the countries on the development path. Competitive firms from developing countries may find themselves in the situation where they are at disadvantage when facing foreign competitors both in the domestic and global competitions. This could be attributed to the lack of technological know-how,

limited knowledge of foreign consumer's taste, limited access to appropriate human capital and business network, etc. This type of outward FDI therefore serves as a means to gain the strategic assets which help enhance their competitiveness. This would, in turn, upgrade the nation's specialisation and sustain the development in the later stages.

In the fourth stage, the volume of outward FDI is greater than that of the inward FDI. The economy now exhibits the new pattern of specialisation and the number of its transnational corporations increases. The economy then enters to the last stage of development where it is fully industrialised. At the fifth stage, the net value of the outflow of FDI and the inflow of FDI or the Net Outward Investment fluctuates around zero.

### **3.2 Juglar Cycles**

The second concept, essential for the paper's proposition, is Juglar Business Cycle which was formulated by Juglar in 1889. Juglar cycle is the cycle of economic activities over a period of nine or ten years. (Glasner and Cooley, 1997) First of all, he posited that crisis is not a discrete event but rather a constituent of cycles. Crisis which renders the economy into depression is a result of 'prosperity' the period where there is a high level of credit expansion and speculations. He noticed that periods of prosperity, crisis and liquidation follow one another in a wave-like fashion. For our particular purpose, the liquidation period will be discussed as this is the scenario we are likely to face if the recent crisis does indeed possess the characters of Juglar cycles.

Ducos (1997) described the liquidation period as follows. It begins by a significant drop in price as confidence falls and speculative behaviour is swept away. There are a number of fire sales as many businesses are bankrupt and deflation occurs. An increase in the rate of unemployment is inevitable and this weakens domestic demand which is important for the sustaining economic growth. Then, this downward trend will slow down until it stabilises. This is necessary for economic recovery. The combination of low prices and reduced interest rates with a tight credit becomes the starting point for recovery. Juglar (1889) expressed his view toward crisis as "*(..) a crisis is only a general liquidation in order to allow business to restart on a sound basis (..) the liquidation is a sounder economic system which drives weak firms and*

*the firms who committed in too risky business out of the economy whereas the sound firms will still survive*<sup>10</sup> Legrand and Hagemann (2005) mentioned that Juglar perceived the liquidation phase as the sequence of situations where confidence would come back and support the new prosperity phase. Indeed, if prosperity is equivalent to harvest, why its preceding period (the liquidation period) could not be viewed as the growing seasons.

#### **IV. Implications for the recent crisis**

The previous section explains how outward FDI could benefit the emerging countries' economic development. It also suggests that crisis can be taken positively because it is the capitalist mechanism that wipes out bad firms and unfavorable elements in the economy. Moreover, it naturally incurs the recuperative power which stabilises the economy and gets the economy ready for another stage of prosperity. In this sense, crisis can therefore be considered analogous to Darwinian natural checks.

The empirical result reported in section II shows that at the early stage of economic development, South Korea has benefited from an inward FDI but, at the later stage, there is a shift in the influence of the type of FDI on the process of economic development. The regression presented in column (3) of Table 1 suggests that, while the power of inward FDI seems to fade, the ability of an outward FDI becomes stronger as depicted by the inward FDI in column (4). The effect of the outward FDI even overtakes that of the inward FDI in the main regression covering the whole period. This evidence well supports the arguments of Dunning and Narula (1996) who advocated that not only the inward FDI is important in the process of industrialisation, but also the outward FDI is vital in this process, especially at the later stage when the initial comparative advantage escalated to the higher stage of development and the institutional infrastructure<sup>11</sup> of the economy is ready to gain the benefit of the outward direct investment. When applying the abovementioned concepts and the empirical evidence to the recent crisis, this paper proposes that the outward FDI from strong emerging economies<sup>12</sup>

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<sup>10</sup> This has been quoted and translated in Legrand and Hagemann (2005)

<sup>11</sup> Such as an existence of capable national corporation, efficient government etc

<sup>12</sup> By quantitative definition, we refers to any nations whose income per capital is between 3,706 ó 11,456 US\$ and BRICs

should be used to shorten the duration of the crisis as well as benefit the domestic development of the emerging countries. Ultimately, this mechanism also has the trickle-down property which would help alleviate the anticipated poverty crisis in the very poor nations.

The investors from strong emerging countries may find the recent liquidation period in advanced countries as great opportunities for their direct investment projects. UNCTAD (2009) reported in its *Investment Brief* that the tough economic period ahead may create good opportunities in attracting an inflow of FDI into developed countries. This is because there are a number of assets on sale at bargain price there. Some of these assets could potentially have a set of elements that satisfy the needs of asset-seeking projects from emerging countries. If the outward FDI transactions from strong emerging countries are to be carried out now, their cost will be significantly less than what it would have been at the normal time. Now, the following focus is on the impact of inward FDI in ailing advanced economies. The inflow of FDI<sup>13</sup> in the case of Merger and Acquisition (M&A) would help easing the liquidity problem in the advanced economies and rescue their financially weak but yet potentially competitive firms. It is argued that the capital inflow from emerging economies to developed countries during the recent crisis is less likely to lessen the positive impact generated from inward FDI as was the case in South Korean in 1997. The source of capital inflow is from the relatively capital-scarce countries; therefore, the investors tend to be prudent on selecting the assets. This enhances the mechanism of natural selection triggered by the crisis. Greenfield investments from emerging countries would also benefit from the cheaper set-up cost due to the weaker currencies in host countries. Both types of investments would absorb the redundant skilled workforce as well as new graduates and this will eventually slow down the rising rate of unemployment in developed countries. Despite encouraging the aforementioned investments, the government's stimulus packages should still be maintained. Moreover, this proposed private-sector solution also translates into the diminution of the burden on tax payers in developed countries.

It is argued that the scenario mentioned above would shorten the economic downtrend of the economies at the epicentre of the crisis. As the world economy is closely integrated through international trade and investment, this solution also possesses the trickle-down effect which

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<sup>13</sup> This refers to inflow of FDI regardless of the source. But the reason this paper emphasises on the FDI stemmed from emerging countries because the majority of advanced countries are suffering from this integrated crisis and hence their priority is their domestic economy

would also benefit the poor countries. Once the advanced economies resume their growth momentum, the strong emerging economies would grow sustainably. Through the linkage created by the world capitalism, the low-income developing countries would benefit from the secured inflow of FDI and sustained export income. Its development path would soon move up to the next stage of development. The global economy as a whole would move to the next stage prosperity which is possibly the higher level than the one in the past. In a longer term, the number of transnational corporations would increase, composing of ones from developed and late developed countries. This tends to decrease the degree of market imperfection in the global scale which would agree with the work of Adam Smith's invisible hand. The world consumer will ultimately be the beneficiary of this evolution.

## **V. Conclusion**

The paper first explains how it derives the empirical findings with the use of Growth Economics theory and econometric tool which is the Two Stage Least Square estimation technique. It then discusses on the validity and interpretation of the results. Drawn from the empirical findings, the paper analyses them in the context of the International Development Path and Juglar Business Cycles. As a result of the analysis, the authors propose that the outward FDI from emerging countries would alleviate the adverse impact of the recent financial crisis originated from the advanced economies. It also shows that such direct investment would benefit the domestic economic development in the emerging countries by means of restructuring its specialism and sustaining its growth along the path of development.

There are also some limitations that are worth mentioning. Growth empirics always give the data that require a very careful interpretation. Also, the empirical fact used to support the main argument is quite unique. However, it is still justifiable for the time being as the cross-sectional data analyses in this manner is not available elsewhere. Moreover, as South Korea follows the Investment Development Path as set out by Professor Dunning, one might intuitively assume that other countries that share the similar stages along the path would have the same relationship between the outward FDI and its economic development. Most importantly, the argument in this paper serves as one of the possible solutions that may be used to alleviate the anticipated poverty crisis in the very poor countries.

It is argued that the concept of the Investment Development Path is a formidable framework which could lend a powerful explanation not only in the International Business area but also in the Development Economics field. There are a number of good researches that empirically assess the pattern of the Net Outward Investment and the Gross Domestic Products per capita, but the empirical studies on the efficiency of each type of FDI on different stages of economic development are rather limited. Future work would, therefore, involve grouping the countries according to the stage of their economic development and running the panel growth regressions on them. This would give a better insight of the dynamic impact of FDI on each stage of development and enhance the explanatory power of the investment Development Path.

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