Can Neo-classical Principles be an Appropriate Paradigm for the Future Economic Development in Korea? [1]

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I. Introduction

The Korean economy experienced a dramatic transition from one of an unprecedented rate of economic growth to one under the IMF bail out package program. The recent currency crisis has vitiated in a way the success of rapid economic growth in the past, and brought about hardship and agony to Koreans as well, which they have never experienced in recent decades.

Further, some economists have raised quite skeptical views on the future of the Korean economy, although, Korea has been a symbol of the most successfully developing country. One of the most significant arguments supporting these negative views is that the ability of economic growth of Korea has reached its limit, since Korean economic development has depended excessively on increases of labor and physical capital inputs.[2] Some economists even jumped to the conclusion that the Korean miracle was a simple illusion, and thus Korean development experiences can no longer serve as a model for development plans in LDC's.

Others consider the current crisis as just a transitionary phenomenon caused by insufficient and delayed structural adjustment, and speculative foreign investors.[3] Some authors define the former as an internal factor, and the latter, an external factor. But I believe such classification does not provide any significant implications in this study.

These conservative believers try to maintain their views by pointing out strong economic fundamentals, a high rate of savings and private investments, effective human capital development, and successful implementation of sound economic policy (including export-oriented strategy, well-managed industrial policies, SOC development, promotion of development-oriented financial system, etc.).

The fact is that, as the world's 11th largest economy, Korea became a member of OECD in 1996. The inflation rate measured in terms of GDP deflator was stabilized within 5%. There was no real concern over the government budget, since the government maintained a balanced budget over the years. A current account deficit persisted but did not seem to cause alarm. In fact, in the previous ten years it never rose above 5% of GDP until the end of 1996.[4] Any stylized macro model is not good enough to incorporate the complex structural imbalances that contributed to the breakout of the crisis. A model that focuses on key macroeconomic variables and external conditions is unlikely to be adequate to derive reasonable answers. Further, any indicator approach to forecast the possibility of another crisis loses its meaning in this sense.

The debate on this issue seems to go on for the time being. What is important at this point is, however, how to overcome diverse impacts of the currency crisis and to establish a new paradigm for the future economic development of the Korean economy. Prime interest will be put on whether the neo-classical principal can serve well to this end in Korea.

II. Causes of the Crisis

Most Koreans believed that Korea would not be contaminated by the South-East Asian countries' currency crisis. It was thus an unexpected incident to them when Korea was caught by the crisis. They thought then that it might just be the outcome of some financial mismanagement, and so it could soon be overcome. But the situation was much worse than everybody thought. In a word, it was a disaster. Since the crisis hit the country by surprise to the mind of Koreans, they got confused in proving the causes of the crisis.

We could point out some key immediate causes of the crisis such as the irrational government guarantee of deposits and loans of all financial institutions, ineffective handling of the failed Kia Motors and Hanbo Steal Corporations, the government's insistence on the strong *won* policy in times of the ASEAN crisis, rapid movement of international capital flow, etc. Many other factors have been provided such as over-lending and over-investment due to moral hazard, high growth and low profits, boom-bust cycle and asset bubble busting, poor corporate governance, overvalued exchange rates, deterioration of terms of trade, high proportion of short-term debts in total foreign debts, large government directed and connected loans, weak financial sector, poor supervision and regulation of financial institutions by the government, lack of transparency in the financial statements of financial institutions and corporations, prevalent corruption and crony capitalism, high cost and low efficiency economy, etc.[5] But none of them alone or as a whole can provide convincing explanations.

Confused with the unexpected outbreak of the currency crisis, various and conflicting views were suggested on the causes of the crisis, although they could be basically classified into two groups. One of them is that the crisis was caused by the weakened structural fundamentals of the Korean economy. The other is that the crisis was induced rather by changes in the expectation of market participants and corresponding government reactions than market fundamentals.[6]

Before the crisis, the IMF and the World Bank had made optimistic evaluations on the future of the Korean economy, and Koreans also had a strong trust in the fundamentals of their economy. Thus, in the early stage of the crisis, the latter view received more attention than the former. They thought that the crisis simply originated from financial mismanagement and delayed structural reforms. So with some reforms, it could end soon, since it was thought to be nothing but an unfortunate short-term phenomenon.

It turned out, however, to be a disaster. It was not one that could be solved by short-term sentimental measures such as overseas sales of gold that was accumulated domestically in a nation-wide donation campaign. Nevertheless, even scholars like Jeffery Sachs and Joseph Stiglitz saw that the Korean crisis was mainly caused by sudden psychological panic in the international capital market, and thus maintained that it was caused by an accident, not by structural problems.[7]

In any case, this line of view is termed either as a 'self-fulfilling expectations model' or an 'exogenous shock hypothesis', or as an 'unexpected lightening hypothesis'. One of the leading views of this kind asserted that mismanagement of the government in times of a probable crisis aggravated the situation. In other words, even when there was an indication of an approaching crisis, the Korean government hastily opened its market for short-term capital movement, operated foreign exchange rates quite rigidly, and even made a mistake to provide guarantee with foreign loans of private firms and financial institutions. A probable accident developed into a crisis, due to the lack of crisis anticipation as well as inappropriate counter-moves of the government. This line of view is termed as the T)ad lightening rod hypothesis', or as the 'government policy failure hypothesis'.[8]

Another line of hypothesis was formed, which was termed the 'conspiracy hypothesis' or the 'pander hypothesis'. This hypothesis maintained the view that the Southeast Asian crisis was caused mainly by malicious international speculations and/or by conspiracy of the IMF and other international financial institutions that worked for the benefit of the USA. Some people say that international capital which had fled out of the Latin American countries in times of their currency crisis, could not find proper places to invest, and thus incited Southeast Asian nations to overinvest through foreign borrowings. When investment risks were anticipated in this area, however, they suddenly pulled out their investments for the protective purpose. This was seen as a major cause of the crisis.

This view made sense in some respects, but could not provide a strong evidence that such physiological habitat of international investors alone could bring about the crisis. What is important is that an individual country should be able to foresee any sign of crisis beforehand, and develop proper measures to cope with even though a conspiracy was building up in reality. In addition, we have to admit that it is quite natural for any investors to do their best to protect their investments even through exercising their influence over their government or financial institutions.

All of the foregoing hypotheses turned out to be not so persuasive, since they put more emphasis on unfortunate environments, inappropriate counter-measures and a speculative nature of short-term investors, rather than a root cause. Further, these factors alone could not cause a crisis unless fundamentals of those countries in crisis were sound and strong. In other words, the source or the root cause of the crisis should be found from a structural weakness of the country. This line of view was termed as the 'structural weakness hypothesis' or the 'volcano eruption hypothesis'.

In short, although various views have been presented to explain the causes of the crisis, we can not deny that the root cause should be sought from the fundamental weakness of the traditional Korean economic operating system. In other words, the centralized management economic (CME) system, which made the past success possible, provided the root cause of the crisis as well.[9]

As proved elsewhere, the CME system worked very well in accumulating enormous capital stocks and mobilizing them efficiently in the early stages of economic development. It should have, however, made appropriate adjustments to deal with changes in economic environment at home and abroad. Although some reform policies were planned and executed, but not good enough to accomplish major changes.[10]

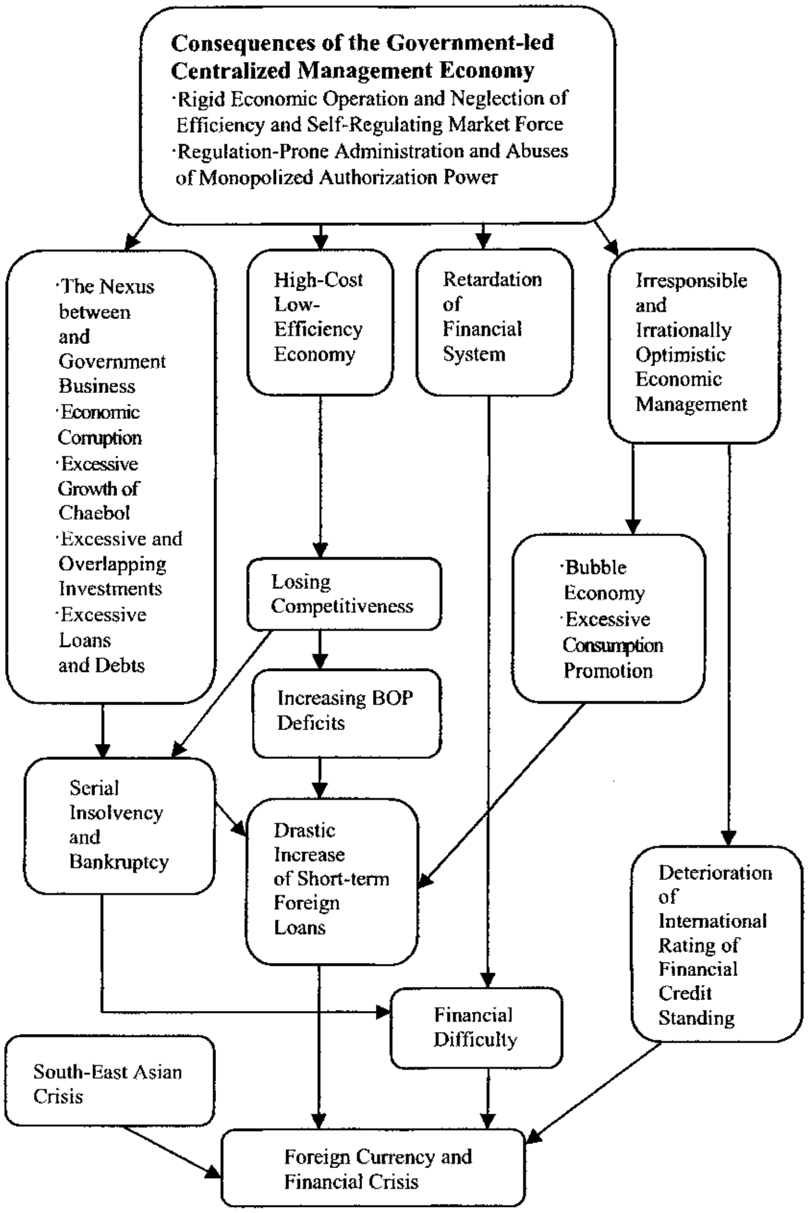
III. Success and Failure of the CME System

In a word, the government-led centralized management economic system which has characterized the economic development process of Korea, provided not only major contributing factors of success but also root causes of the economic crisis in Korea."

In the early stage of economic development, Korea adopted a strong government-led economic operating system in order to break the vicious circle of poverty, and to provide investments for SOC's and key industries. In general, economic development depends, mainly on who owns key production means (e.g. capital in a capitalistic society), and how to produce with them. Under the CME system, however, whoever the legal owner of capital is, they cannot avoid influence from the central government and bureaucrats, since the central government has been a major contributor to capital formation. This is the very reason why the central government could exercise a stronger role than legal private owners. Although privately owned, rapid and massive formation and accumulation of capital in a short period were not possible without the central government's influence. This is why this paper characterized the Korean economic development process by CME system rather than a simple government-led economic system.[2] The Korean government intervened in the private sector with an extremely centralized management system, and played a leading role in private capital formation, thereby exercising a stronger influence over the private legal ownership.

For the sake of an efficient pursuit of a government-led economic development plan, Korea established a strong bureaucratic system. For example, the Economic Planning Board (EPB) was established for economic planning and any jobs related

Figure 1. Root Cause of the Crisis



to economic planning such as the compilation and execution of the government budget, and financial support. The chief of EPB was named as vice premier, who was supposed to play a major role in coordinating economic development planning and execution. In order to consolidate a strong management system, the government went through financial reforms such as currency reform, nationalization of major commercial banks, and the creation of government-owned special banks. By so doing, the government became a sole manager of capital formation and financial assistance for leading industrial sectors.

The government became the sole responsible operator of capital ownership and management. To this end, the government had the central bank at its command. As the sole controller of the financial system, the government established the so-called policy-financing system, which was a government-directed credit rationing system.

The CME-based economic operations brought about regulation-oriented bureaucracy, abuse of monopolistic authorization for permission, licensing and certifying, and shortage in investment for the R&D and human capital sectors. Such operations created close government-business nexus, a breach of official discipline, expansion of corruption, and *chaebol-oriented* industrial policies. The CME also induced overlapping investment and excessive borrowing, which incurred insolvency and bankruptcy in later days. In addition, the government command of the financial system, paralyzed its autonomous function, while government-centered economic operations made bureaucrats indulge in an optimistic and peace-at-any-price principle. This in turn became a deterrent to normal economic transactions, and downgraded the competitiveness of government. The so-called high-cost low-efficiency economic structure was built in as a consequence of weakened competitiveness. Due to such characteristics of the CME system, the government simply tried to fill the gap by borrowing short-term foreign loans to cope with the ever-increasing trade balance deficits, and could not issue proper counter measures against the influence from the Southeast Asian crisis, but came to experience its own disastrous currency crisis.

In order to make the argument regarding the root cause of the crisis, let's make a brief review of the CME-based economic development process in Korea.

The CME system could make the Korean economy achieve unprecedented economic growth by establishing a market economic system, accumulating massive capital stocks, initiating the export-led industrialization strategies and providing sufficient financial supports for leading sectors. During 1967-1971, the real per capita GNP grew at an annual average rate of 9.6%.[13]

It was in the mid-1970's that the CME system needed some adjustment, as many undesirable consequences resulted. Some changes were planned and executed in the early 1980's. No significant changes were, however, made until economic democracy began to be pursued through the '1987 democratization declaration'. Such movement was followed by decentralization, deregulation and globalization. But the reform measures were not strong enough to accomplish improvement of national economic fundamentals and thereby prevent the upcoming financial crisis.[14]

One of the most salient features of Korea's rapid development is that extensive state intervention has been an integral part of the government development strategy. In the process of intervention, all possible policy measures were employed in such a way that incentives were provided through tax, credit, foreign exchange allowances and interest rate policies, and the domestic market was protected through trade policy, foreign direct investment policy and other forms of intervention with a plethora of regulation. Among all, the most powerful tool that was ever mobilized was the so-called policy financing. It was a government-directed credit allocation system that applied preferential interest rates for specific purposes such as exports and investments in specific target industries or projects.

State intervention could be easily justified at the initial stage of Korean economic development. Its market size was too small and too primitive to function efficiently. In addition, apparent features of underdevelopment such as lack of knowledge, technology and capital as well as pervasive inequality of international bargaining power made state intervention inevitable.[15]

Such development paradigm of state intervention was found to be quite conducive to fast economic growth in the 1960-70's. Since the 1980's, however, state intervention began to lose its efficacy, and to sow the seeds of the 1997 financial crisis in Korea. Many of the factors that were believed to contribute to the financial crisis in Korea, such as excessive and overlapped investments by overdiversified chaebol through debt capital, an extremely inefficient financial sector, government and business nexus and a consequent lack of transparency in business operation and bureaucratic corruption, extreme regulation and consequent moral hazard, high-cost low productivity and consequent loss of international competitiveness, and rigid labor markets, originated from the strong state intervention mechanisms that were maintained too long.

Faced with a painful realization of the drawbacks of the old policy paradigm and financial crisis, it has been suggested that the policy paradigm should shift from state intervention towards a market-oriented economic system. In fact, even before the crisis, the Korean style state intervention, the CME system had begun to change, although we had to wait for major changes until the crisis.

Newly emerging policy principles were basically neo-classical. For the sake of sustainable economic development, market principles were emphasized, although economic democracy became a major issue for equitable economic development. So, the government was recommended to play a complementary role in the private sector, guarantee the freedom of the private sector and provide an environment conducive to the development of the private sector. Faced with the globalization era, transparency, accountability and competition in the private sector operation was emphasized more than ever.

By all of the foregoing discussions, it is evident that faced with ever-changing internal and external environments, the policy paradigm of Korea should make a proper adjustment. The question is, however, whether neo-classical principles can be a substitute for the old paradigm.

IV. Neo-Classical Principles and Their Limitations

Following the financial crisis, or even before the crisis, economic reform policies have been based largely on neo-classical doctrines in Korea.[16] Competition instead of government intervention and regulation, and trade and capital liberalization instead of import restrictions and protection have been suggested and pursued to promote economic efficiency through elevated competition. The liberalized and competition-based market economic system has been advised to replace the traditional development strategies of the developmental state model approach.

Chowdhury and Islam (2001), however, argued that the 'Washington consensus' could satisfactorily explain neither growth in pre-crisis Asia, nor the outbreak of the crisis. After all, Asian economies were paragons of the neo-classical principles in recent years. The 'Washington consensus' which reflected the intellectual influence of Washington-based institutions such as the U.S. Treasury, the IMF and the World Bank, advocated free markets, free flow of trade and capital across the globe. Stiglitz has led the way in criticizing conventional liberalism as development policy, and also pointed out that it misguided the East Asian Crisis.

Chowdhury and Islam even argued that the follies of the 'Washington consensus', a significant departure from the conventional Asian development model, partially contributed to the Asian crisis, and aggravated the crisis by severely constraining the macroeconomic policy mix.[17] They saw that the progressive withdrawal of governments from regulating both the real and financial sector of the economy since the mid 1980s in line with the 'Washington consensus,' drove Asian nations into a status of hostages to international financial markets. The only thing that the government could do was simply to keep foreign capital inflows to maintain economic growth.

Others like Hutson and Kearney (2001) pointed out the fact that there is a growing consensus that the international financial market and the world financial system have exhibited an increasing degree of fragility.[18] As a matter of fact, during the last two decades, we have witnessed four financial crises. The Asian crisis has been the most serious one among them. The amount of capital that has fled out of the region is estimated to be as high as 11 percent of the affected countries' combined GDP. What is worse, the crisis even threatened the stability of the international financial system, notwithstanding catastrophic damages on the affected countries.

What scared the countries directly involved in the crisis was that, the IMF forced them, in a way, to adopt its policy advice against interests of the troubled economies. There has been a growing concern that the IMF operation has been moving away from the international community, in favor of the USA. It is believed by many that international financial market failures such as information asymmetries and moral hazard, aggravated the crisis, albeit basically it may have resulted from a fundamental weakness in the Asian economies, such as often-cited crony capitalism, poor corporate governance, inadequate financial supervision and inappropriate exchange rate policies, etc.

In any case, at least the IMF cannot avoid criticism that it has forced infected countries to accept its loan conditions which are in fact against the traditional line of macroeconomic requirements. Somehow, the IMF should have made an effort to reduce the size of its bail-outs. Furthermore, it should have assisted the rescheduling of debt repayment, instead of bailing out lenders alone. Unfortunately, the final decision was to ask Asian nations in crisis to adopt high interest rates and tightened government budget principles, which contributed to aggravation of the depression.

It is obvious that neo-classical principles may contribute to enhancing efficiency of the international market system, but we should remember that it will also widen the gap between the rich and the poor countries, since they will bring about an unfavorable atmosphere to LDC's in world trading most of the time.

In a nation, poor people can be protected by national policies such as the social safety net, health care, a pension system, etc. There are no comparable policies or systems that can work for the poor countries. It is quite predictable that the world economy will turn toward a more unstable position than now, unless some countervailing measures are prepared.[19]

V. An Alternative: The Advanced State Model Approach

What then can be an alternative to the old traditional statist model and the extreme neo-classical approach? What I intend to address at this point is that the role of the government should not be given up in LCD's, until they became a fully developed country although it should be shifted toward a new paradigm.

By establishing the CME system, Korea was able to achieve unprecedented economic growth, but came to experience the economic crisis as well just before the turn of the 20th century due to its inherent structural shortcomings. The government-led economic operations that functioned efficiently in the early stages of economic development,[20] created low-efficiency and high-cost economic structure at later stages.

Excessive government intervention, for example, deteriorated creative and responsive power of the market system. Even decisions on R&D investments were made by the government, making private sectors more dependent on government decisions. This in turn brought about bureaucratic corruption. The government-led economic operations are in nature, inappropriate, as industrialization reaches a certain level. Excessive and overlapping investments, which stemmed from preferential government support, bought about not only business firms' but also national bankruptcy. The cause of the crisis is believed to have stemmed from the government's failure in institutional operations.

Disaster from the crisis was able to work as an opportunity for Korea to make a real change in its economic structure. In fact, Korea executed four major reform programs that were otherwise improbable to be realized in the past, and made its economy bounce back quite strongly.

As witnessed, however, in the mishap of neoclassical policy recommendations before and after the crisis, the role of the government in developing countries should not be given up, although some modification may be needed, (see the third row in Table 1)

If the neoclassical principle cannot successfully substitute for the conventional developmental state model, what then can replace the traditional approach? An alternative to be presented here is the termed 'advanced state model' approach.

The capitalistic system or the market economy is basically an efficiency-oriented system. Survival of the fittest is the name of the game. Inequality is a natural consequence. The weak or handicapped must devise their own protective measures doctrine. Government intervention is another way of making up their structural weakness and backwardness. The developmental state model or the statist model has played a leading role in this regard, especially in East Asian countries during the latter half of the 20th century.

Korea, and other neighboring East Asian countries still have a lot of structural and institutional backwardness and are thirsting for sustainable economic growth to catch up with advanced countries. Only compressed growth can make developing countries achieve further advancement in their economies. For faster growth under a less favorable economic structure East Asian nations still need appropriate government intervention in the years to come.

With all the foregoing discussions, I would like to suggest a new development model, which we may call 'the advanced state

Table 1. Economic Development Paradigms

Models Issues	Developmental State Model for Early Stage Economic Development	Advanced State Model for Later Stage Economic Development
Internal and External Surroundings	•Pursuit of Free Trade •Favorable Attitudes toward Economic Support for the LDC's	•Globalization and Unlimiting Competition •Developed Countries' Interest -oriented International Economic Order
Development Strategies	•Government-led Economic Development Planning •CME System •Physical Capital-Oriented Quantitative Growth •Growth-First Principle •Unbalanced Growth through Export-led Industrialization	•Decentralization and Privatization •Decentralized and Liberal Economic Operations Human Capital-oriented Qualitative Growth-Stable Growth with Equity and Welfare Improvement •Upgrading of Industrial Structure and Correction of Industrial Disequilibrium
Role of Government	•Removal of Supply Bottle-neck Problems •Minor Interest in Correcting Market Failures •Neglect of Equity and Welfare Improvement	•SOC Expansion and Productivity Improvement •Major Interest in Correcting Market Failures •Equity and Welfare Improvement
Miscellaneous	•Capitalism is an efficiency-oriented system. •Proper role of government is needed to alleviate inherent drawbacks of the system and to pursue economic development. •Active and appropriate role of government is necessary for LDC's to advance their economies	

development model.' It will emphasize the role of government but in different aspects. The paradigm will simply be shifted from the old to the new, in such a way that it will suffice the new role of government for further advancement of the economy in Korea and (Asian) NIC's. The basic idea behind this model can be summarized as follows.

First of all, the new paradigm will concentrate on sustainable and qualitative growth to reach an advanced state of economic development, replacing the early-stage economic development strategies for fast and quantitative growth.

Second, the economic operating mechanism of the government should move from the centralized management system to a decentralized one through democratization, privatization and liberalization in such a way as to improve both economic efficiency and equity.

Third, equity and welfare-oriented development principles should replace the growth-first principle. Various unhealthy consequences and disequilibrium caused by past development strategies need be corrected now.

Fourth, future development should be directed toward the establishment of a human capital-oriented, and knowledge / information-oriented society, which will definitely improve both economic efficiency and equity at the same time.[21]

Fifth, in order to accomplish the above objectives, the government should return private sector businesses to business firms and financial institutions, and concentrate on its original role for the supply of public goods (investment in SOC's and education, for example), correction of market failure and an embodiment of the welfare state, etc.

Finally, the role of the government needs adjustment depending on the development stages of a nation, but should not be given up. An active role of the government is indispensable for developing countries to move toward an advanced state.

A knowledge and information society is the one in which the status of human capital owners is elevated, and capital ownership is dispersed to many small owners. Human capital owners have an improved position over physical capital owners. Subordinate capital-labor relationships and extreme conflicts between them will fade away gradually, since cooperation between them is essential to promote efficient production in the human capital-oriented society. Capital and labor will pursue a positive sum game through cooperation.

The essence of the knowledge and information society lies at the development of human capital through investments in education, training and R&D. In particular, expansion and improvement of public education will increase the portion distributed to laborers, and thus improve social equity. In the end, a knowledge and information society will create a win-win society and thereby enhance equity and efficiency through improving the laborer's position. This society can be the leading paradigm for the future and thus serve as a target for the future development policy agenda of the government.

One last note to make clear is that the ASD model is not necessarily against neo-classical doctrine. In fact, it incorporates many of the neo-classical and structuralist principles. It is simply focusing on proper roles of government needed for transformation toward an advanced state.

The ASD model is not necessarily against globalization either, which seems inevitable. It simply tries to point out some areas not need attention in the globalization process. Somehow, proper care and assistance should be made for LDC's, while they themselves should learn how to survive in the world of a new international economic order. The proper role of government is indispensable in this respect in LCD's. More importantly, some institutional devices need to be designed for stability of the world economy, like similar arrangements have been made domestically to alleviate structural shortcomings such as government failure, disequilibrium and unbalanced income distribution.

Notes

1. This paper was supported by the 2002 research grant that provided by The Sungkok Academic and Cultural Foundation

2. For details, see Paul R. Krugman, "The Myth of Asia's Miracle", ***Foreign Affairs,*** **73(6), 1994, pp. 62-78 ; Norman Flynn,** ***Miracle to Meltdown in Asia - Business, Government and Society,*** **Oxford University Press, 1999 ; Henke, Holger and Ian BoxilI(eds.) ,** ***The End of the 'Asian Model'?,*** **John Benjamins Publishing Company, 1999.**

3. Some people define the former as an internal factor, and the latter, an external factor. But I believe such classification does not provide any significant implications in this study.

4. Any stylized macro model is not good enough to incorporate the complex structural imbalances that contributed to the breakout of the crisis. A model that focuses on key macroeconomic variables and external conditions is unlikely to be adequate to derive reasonable answers. Further, any indicator approach to forecast the possibility of another crisis loses its meaning in this sense.

5. For details, see O. Yul Kwon, "Paradigm Shift in Korean Economic Policy

in the Wake of the 1997 Financial Crisis," in Anis Chowdhury and lyanatul Islam(eds.) *Beyond the Asian Crisis,* Edward-Elgar, 2001, pp. 75-100.

6. For details, see Jong Won Lee, Hyun-Hoon Lee and Doo Yong Yang, " Structural Reform in Korea: Its Process and Consequences," in Tran Van Hoa(ed.), *The Asia Recovery,* Edward-Elgar, 2001, pp. 15-33.

7. For details, see Joseph E. Stiglitz, "An Agenda for Development in the Twenty-First Century," in Boris Pleskovic and Joseph E. Stiglitz(eds.), *Annual World Bank Conference on Development Economies,* 1997, pp. 17-31.

8. For details, see Hyun-hoon Lee. "The IMF Rescue Program in Korea: What Went Wrong," *The Journal of the Korean Economy,* Vol. 2, No. 1 (spring 2001),pp.69-86

9. For details, see Jong Won Lee, "A Study on the Economic Development Process in Korea," *Kyong Je Hah Yon Gu,* Vol.41, No.2, 1993, pp. 335-371.

10. For details, see Jong Won Lee, *The Korean Economy,* Haenam, 2002.

11. For details, see Jong Won Lee, "Success and Failure of the Korean Economy and Its Prospect," Mimeo, 2000.

12. For more details on the CME system, see Lee (2002, op. cit., ch.2), and Lee (2003, *Sungkok Journal,* Vol.34).

13. As proved elsewhere(Jong Won Lee and Byung-Gyu Yu, "An Endogenous Growth Model Approach to the Korean Economic Growth Factors," *The Journal of the Korean Economy,* vol.8 (May 2002), pp.1-14), Korean economic growth was found, through a Romer-type endogenous technological change model estimation, to be achieved by technological development, human capital accumulation as well as accumulation of physical capital, i.e., Korean economic development was achieved not merely through more input, but through human capital and technological development as well.

14. Lee (2002) proved, by estimating a Roemer type growth model, that the degree of the centralized management of the Korean government played a positive effect on the economic growth for the 1970-1980 period, but was negative for the 1981-1996 period. In other words, the CME system was proved to have a positive influence on economic growth only in the early stage of development, but a negative influence in the later stage.

15. For details, see Alice H. Amsden, *Asia's Next Giant: South Korea and Late Industrialization,* New York: Oxford University Press, 1989 ; Chalmers Johnson, "What is the Best System of National Economic Management for Korea," in L. J. Cho and Y. H. Kim (eds.), *Korea's Political Economy: An Institutional Perspective,* San Francisco: Westview Press, 1994 ; Rodrick, D., *Growth Policy: Getting Interventions Right: How South Korea and Taiwan Grew Rich Economic Policy,* April 1995, pp. 55-107 ; Wade, R., *Governing the Market: Economic Theory and the Role of Government in East Asian Industrialization,* Princeton University Press, 1990.

16. Neo-classical principles consider physical capital accumulation as the only ultimate source of economic growth under the assumption of competitive equilibrium. In addition, the neo-classical tradition has been in favor of unlimited competition within a nation and abroad. This line of argument has been manifested in the Washington consensus. Such a doctrine may contribute to economic efficiency between advanced nations, but cause pessimism

regarding the external conditions of LDC's. In addition, it has a tendency to neglect other sources of economic development such as (1) improvement in the quality of labor through education; (2) reallocation of resources from low-productivity to higher-productivity uses; and, (3) the realization of economies of scale, and technology improvement. More importantly, neo-classical theories are based on unrealistic assumptions of perfect competition, which are far from the reality of LDC's. Neither neo-classical doctrines coupled with Washington consensus nor neo-Marxist approaches can provide appropriate guidance for the economic development problems of LDC's The ASD Model was introduced here to replace the old statist model of strong government intervention, and to substitute for the neo-classical principles for the future economic development reference in LDC's. Appropriate shift toward new roles of government, together with the establishment of knowledge and information oriented society will pave the way for future economic development for Korea and LDC's.

17. To be specific, Chowdhury and Islam put forward the following arguments: In the wake of the East Asian crisis, governments were forced by the IMF to give up policy independence. On the basis of the Washington-led international community, Asian governments were directed to win the 'confidence game' at all cost. Thus, interest rates were raised and budgets were tightened. The Keynesian compact was broken, albeit temporarily, but its inexorable logic prevailed. A prospective recession became an unescapable reality. They also said that prominent economists (for example, Corden, 1999; Krugman, 1998a, 1999; Sachs, 1998; Stiglitz, 1998b.) have conclude that the very IMF adjustment package aggravated the crisis.

18. For details, see Elaine Hutson and Colm Kearney, " The IMF and the New International Financial Architecture," in Anis Chowdhury and Iyanatul Islam (eds.), *Beyond the Asian Crisis*, Edward-Elgar, 2001, pp. 324-357; Martin Feldstein, "Refocusing the IMF," *Foreign Affairs*, March/April, 1998; Stanley Fischer, "The IMF and the Asian Crisis," IMF, March 20, 1998.

19. One more important note to make is that extreme liberalization and deregulation on the national and international level will make weak and poor small nations helpless in implementing proper stabilization policies domestically.

20. It should be noted, however, that either strong government or government intervention does not necessarily guarantee a high economic growth even in the early stages of economic development. In addition, the government-led economic operations, whether strong or not, do not necessarily imply automatic government intervention. After all, the CME system, the Korean style government-led economic operating system has been a particular one in that the government has played a more important role even than legal private owners in their capital formation.

21. For details, see Jong Won Lee, " How Can We Interpret the Knowledge and Information Society: An Economic Developmental Model Approach," *Korean Economic Review*, Vol. 26, pp. 1-16.