The Economic Club of New York

The Honorable Choongsoo Kim

Governor, Bank of Korea

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Introduction
Roger Ferguson

I am Roger Ferguson, I am the Chairman of the Economic Club of New York and today I am happy to introduce the honorable Choongsoo Kim, Governor of the Bank of Korea and Chairman of its Monetary Policy Committee. Governor Kim took office in April 1, 2010. Prior to his appointment he served as a Korea Ambassador and Permanent Representative to the OECD in Paris and is Senior Secretary to the President of Economic Affairs in the Office of the President of Korea. He has also been President of Hallym University and President of the Korea Development Institute. Governor Kim will speak first and then we will open the floor for questions. We will adjourn at 9:00 a.m. Governor Kim's remarks are on the record. Governor.

Global Growth and Financial Stability: A Korean Perspective
Choongsoo Kim
Governor, Bank of Korea

Introduction

I am very much honored to speak before distinguished audience at this prestigious club. Considering that the club was founded six years earlier even than the century-old Federal Reserve System, it must have lived through the two global crises—the Great Depression and The Great Recession—both of which started right here in New York City. As a central bank governor with a short tenure of four years, I envy such longevity and the crisis resilience of the club, and am in fact very curious about the secrets behind your lasting success.

Today I stand in such a historic site to share with you my views on what should be done to achieve sustainable global growth and financial stability. As this past September marked the 5th year from the collapse of the Lehman Brothers, I believe the time is ripe to look back to draw lessons from our efforts to overcome the global financial crisis. It is also the right time to look forward as the global economy and particularly the US economy are gradually moving out of their worst post-war recession while the global financial reforms are about to gain traction.

I will address a few topics that I believe have important bearings on the future landscape of the global economy and financial system. I will begin by offering my views on the Korean economy in the context of recent developments in the global economic and financial conditions. I will then discuss the need for advanced and emerging market economies to better share responsibilities within their respective capacities for promoting sustainable global growth and durable financial stability. Finally, I will turn to key policy challenges that we will have to address sooner than later. While my focus is more on emerging market economies including Korea, I believe what I will say today is also of relevance to advanced economies.

I have been lucky enough to serve the first and only country in the world that transformed itself from an aid-recipient in absolute poverty to a donor by joining the Development Assistance Committee of the OECD. Korea's economic successes and financial failures are

the lens that I look through to seek the right solutions and, more importantly, to ask the right questions. I will do the same today.

Global Economy in Transition: Where does Korea Stand?

As you are well aware, the global economy is currently in transition. Advanced economies are now showing signs of recovery—although only moderate and uneven across countries. Private sector deleveraging seems to have come to an end in the US and significantly slowed in Europe. In contrast, EMEs have seen their growth decelerate and, in some cases, their external positions also deteriorate significantly. More recently, several major EMEs have experienced a sharp reversal in capital flows and heightened exchange market pressure triggered by the perceived shift in the US monetary policy. It is premature and hard to tell at the current juncture whether the ongoing transition will be cyclical and short-lived in nature or mark the beginning of a new trend. But I can tell that, in the end, policy should matter for the nature of the transition.

Leaving the longer-run policy challenges for later discussions, I would first like to briefly update you on the current status of the Korean economy. A recent IMF report is quoted as stating that "Korea, together with Australia and Canada, is expected to fare relatively well following a US exit." Indeed, Korea has stood out among emerging market economies over the past several months of market jitters related to the US monetary policy in terms of macroeconomic and financial resilience. During the period from 22 May to end-August,

Korea witnessed only a modest adjustment in asset prices. For example, the stock price fell by a mere 3 percent while the Korean won appreciated slightly, gaining 0.3 percent against the dollar. This is in sharp contrast to many other EMEs where, over the same period, stock prices and currency exchange values fell substantially amid capital outflows.

Remarkable resilience at this time is attributable to Korea's sound macro-financial fundamentals. During 2009-12, economic growth remained on average at 3.1 percent which is well above the OECD average of 0.7 percent. I expect Korea to regain its potential growth rate of around 3.8 percent by next year. Inflation has been stable at less than 2 percent during the past 12 months. Such low inflation is mainly due to unusual developments in the prices of oil and agricultural products which are transitory in nature. In contrast, inflation expectations remain well anchored within the target range. The current account balance—perhaps the most crucial indicator to look at for global investors who are investing in EMEs—has been in surplus for 19 straight months since February last year. On an annual basis, the current account has posted surpluses in the range of 2 to 4 percent of GDP during the past four years, and is projected to register an even larger surplus this year.

On the financial front, Korea has reduced its stock vulnerabilities significantly since the global financial crisis. Short-term debt as a share of total external debt declined from 48 percent in 2007 to 31 percent by 2012, while foreign reserves have steadily increased to US$ 337 billion by the end of this September. Domestic banks are now far better capitalized

than before with the average capital adequacy ratio and tier-1 capital ratio standing respectively at over 14 percent and 11 percent at the end of 2012—both of which are well above the minimum international standards. Last but not least, Korea's sovereign credit ratings were upgraded by all three major credit rating agencies in 2012, a commendable and singular development at the time of global downgrades.

Underlying these achievements have been policy efforts inspired by lessons from the global financial crisis and the emergence of new thinking on macro-prudential policy. Apart from massive global liquidity shocks beyond our control, currency and maturity mismatches were identified as the key driver of the sharp capital flow reversal and exchange rate overshooting during the global crisis. Moreover, real and financial linkage as well as complex interactions among financial institutions called for a macro view in prudential policies.

Against this backdrop, macro-prudential policy measures were introduced with a view to complementing monetary policy in stabilizing capital flows and attendant systemic risk. Specifically, regulatory leverage caps on banks' FX derivatives position were introduced in 2010, followed by a bank levy on the non-core foreign currency liabilities of banks that was introduced in 2011. These measures, which aim at improving the composition of capital flows and reducing mismatches, are applied to domestic banks and foreign bank branches

alike. As such, the absence of residency-based discrimination is what renders our macroprudential policies distinct from the capital controls used by other EMEs. In light of the short history of policy implementation, it may be too early to tell whether they do have their intended effects. But some preliminary empirical evidence that I presented at a research conference organized by the IMF several months ago suggests that these macro-prudential measures are effective in moderating the volatility of capital flows and also improving their maturity structure toward longer-term portfolio flows and away from volatile short-term bank flows.

As a prelude to my next discussion, I would like to reflect briefly on what Korea learned from the 1997 financial crisis and how such lessons paved the way for greater resilience to the global financial crisis more than a decade later. I will not go over a detailed account of specific policy responses since they are already well documented by the IMF and in academic research. Instead, I want to highlight the vision that has guided us toward a quick recovery from the crisis and also sustained growth thereafter. The vision was “global Korea” with open financial markets and free trade. Indeed, greater financial and trade integration into the global system is what has characterized the Korean economy since then. Korea is now as financially open as any advanced economies. Also, Korea has currently signed FTAs with 45 countries, including the United States, the European Union, and ASEAN, among others, and is now negotiating FTAs with China and Japan. The same vision also explains why Korea has spearheaded global efforts in the G20 to decisively reject real and financial protectionism.

Sharing Responsibilities for Global Growth and Financial Stability

Having said that, let me move on to my second topic which is rooted in my intellectual quest for how EMEs and advanced economies should and can work together to better contribute to global growth and financial stability in a highly interconnected world. I will begin by presenting some evidence on growth spillovers between advanced economies and EMEs. Many studies suggest that EMEs are on average better positioned than advanced ones to lead global economic growth in the future in view of their higher potential for growth. Their contribution to global economic growth already reached 54 percent during the period of 2000-05, and further increased to 74 percent over the past five years. As a result, their share in total world GDP has increased significantly—from 37 percent in 2000 to 50 percent in 2012. The IMF projects EMEs' contribution to global economic growth as likely to remain at over 60 percent over the next five years, and their share in world GDP to increase to 54 percent by 2018.

All of these statistics point toward a good possibility of two-way growth spillovers between advanced economies and EMEs. On this point, I would like to share with you the preliminary findings of a study undertaken by my staff at the Bank of Korea. The study found statistically significant evidence of broadly symmetric two-way growth spillovers between advanced economies and EMEs. Specifically, a one percent increase in GDP in either group of economies stimulates economic growth of the other group by 0.3 to 0.4 percentage points

over the medium run. The study also confirmed the long-run growth-enhancing effects of structural reforms, trade and financial openness, and fiscal prudence. These findings imply that global growth can be further enhanced if reforms are undertaken simultaneously in both groups of economies, aiming at greater openness and fiscal prudence.

For many EMEs and particularly those in Asia, I think the most fundamental long-run risk factor to their growth and stability is the multi-faceted duality of their economic structure. Compared to advanced economies, for instance, they are relatively advanced in industrial development but lag far behind in financial deepening. They now trade more among themselves than with advanced economies but depend heavily on the latter for external funding. Such duality implies—and I firmly believe it to be the case—that domestic financial reforms and financial integration must be a critical necessary condition for EMEs in transforming themselves once again for their own benefit and also for their greater contribution to global growth and stability commensurate with their growing presence in the global economy.

Looking through the lens of Korea's experiences, I should highlight two core elements of EMEs' solution for sustainable growth and financial stability. The first is more financial integration as a catalyst for financial deepening. EMEs need to build up financial capacity to create safe domestic assets on a sufficient scale in order to reduce dependence on foreign currency funding and promote domestic demand. As the financial systems of advanced

economies are expected to evolve rapidly in view of global financial regulatory reforms, EMEs should join the global quest—rather than waiting on the sidelines—in search of a more resilient and efficient financial system. The second is stronger regional financial cooperation. In Asia and other regions, regional financial cooperation lags far behind regional trade integration. I believe financial imbalances are less likely to develop if trade and financial flows are better matched.

What then are the responsibilities of advanced economies in achieving sustainable global growth and financial stability? I think the prime responsibility of advanced economies—especially, major ones—rests on ensuring global financial stability for many good reasons. Advanced economies have been and will continue to be the dominant players of the global financial system for the foreseeable future. Global liquidity conditions and investor risk appetite, which are set in advanced markets, have far-reaching implications for EMEs but not vice versa. Indeed, global banking glut has received as much attention as global saving glut as a deep cause of the global financial crisis. In sum, major advanced economies are at the center of financial externalities and thus should bear greater responsibility for stabilizing global financial conditions than they did in the past.

The first priority should be to put their public finance on sustainable footing with a credible long-term fiscal plan to reduce public debt. This is of paramount importance to not only global financial stability but also sustainable global growth. Equally important would be to

address deficiencies at various levels in the global financial system as revealed by the global financial crisis. To this end, the global community has built up its store of collective wisdom on financial regulatory reforms over the past few years. I have seen substantial progress in financial reform but much remains to be done. In this respect, I hope to see stronger leadership by the advanced economies and greater cooperation among them.

Policy Challenges

I will now turn to policy challenges, the last topic of my talk. Despite controversies and conflicting national interests, global financial reforms have progressed on many fronts. But many policy challenges remain, awaiting further policy consideration. As such, I will have to be selective in my scope and focus in the following discussions. Policy challenges that I will discuss may be best characterized in abstract terms by a few keywords such as financial globalization, interconnectedness, and externality. You may already notice that these keywords are not independent from each other but closely interrelated. So is the policy challenges we will face.

The first challenge is how to manage international financial spillovers via volatile cross border capital flows. Underlying the international financial spillovers is, of course, the financial globalization that has paced in the 2000s. An intriguing question that bears asking is whether financial globalization will have to proceed further or whether it will retreat. I do not know the answer and financial globalization may exhibit a cycle. But my conjecture is that

reversing the trend of financial globalization by policies or regulations may be very costly if not impossible. In any event, international financial spillovers will continue to pose a threat to financial stability and challenges to monetary and regulatory policies, especially for EMEs. A practical policy option to deal with excessive international financial spillovers would be to regulate cross-border capital flows better in both source and destination countries. I do not mean more capital controls. Rather, I am arguing for a better sharing of responsibilities in stabilizing cross-border capital flows between advanced economies and EMEs. Advanced economies may opt to utilize a range of micro- and macro-prudential regulations as has been the case for EMEs including Korea, with a view to preventing the excessive risk-taking and foreign exposures of their financial institutions, particularly the so-called G-SIFIs. In this light, I expect that the global financial reforms currently underway will help limit dangerous international financial spillovers.

The second challenge is how to minimize or avoid cross-border regulatory arbitrage and unintended consequences of regulatory reforms. In order to prevent cross-border regulatory arbitrage, it is natural to assume that the same regulatory standards should be uniformly applied to all countries. But regulatory reforms that have thus far been agreed on will be put into effect only at an uneven pace across countries. And the regulatory details are quite diverse among countries even for the same regulations. Moreover, regulatory reforms may have unintended consequences for global growth, at least over the course of their implementation, as indicated by the results of a calibration exercise undertaken by the FSB

and the BCBS. And the IMF research also suggests that their negative growth impact would likely be greater for EMEs than advanced ones.

For EMEs, the policy challenges posed by regulatory reforms appear immense with no easy solutions. Adopting global regulatory standards could be somewhat unsuited to their domestic financial system and may create serious unintended consequences at least during transition. A few specific examples may help illustrate this. Shadow banking regulations may do more harm than good for some EMEs whose banking industry is less developed so that shadow banks offer a wide range of financial services to SMEs and low-income households with limited or no access to banks. The NSFR (net stable funding ratio) is intended to reduce maturity mismatches by requiring long-term lending to be funded long term. If introduced, however, it may undermine the very basic function of banks which is maturity transformation. This would be the case particularly for EMEs where retail banking is the typical business model of banks. While these challenges do not necessarily justify less or delayed reforms for EMEs, the international community such as the FSB needs to step up close consultation with EMEs to find practical and balanced solutions.

The third and last challenge that I want to discuss is related to how to achieve global policy cooperation. In my view, the absence of a global jurisdiction underlies many lingering problems of global concern that have not been resolved. Uncoordinated national policy responses to global financial issues are likely to be suboptimal from a global perspective, if

not prone to the fallacy of composition or even to the emergence of unstable multiple equilibria. Some may view global policy cooperation as unnecessary but I do not agree with the view. The global economy has and will be increasingly more interconnected and, accordingly, cross-border policy externality will become ever stronger. I would argue therefore that the welfare cost of no policy cooperation will soon rise above that of possibly suboptimal policy cooperation, if this is not already the case.

At present, establishing effective global financial safety nets should be the prime example of success in global policy cooperation. The global financial system needs an effective backstop for global liquidity shortage. To this end, financial safety nets or risk pooling at a global level should be more efficient than risk pooling at the regional or national level. In this context, I urge major central banks and international financial institutions to play a greater role in developing global financial safety nets for global financial stability.

We have already seen how useful in addressing liquidity disruptions were the currency swap arrangements activated during the global financial crisis between the US Fed and the ECB and also between the US Fed and four EM central banks including the Bank of Korea. Nevertheless, major central banks appear passive on the grounds that global safety nets could nurture moral hazard or complacency among EMEs. I am highly dubious about this view. Without effective global safety nets, EMEs will have even greater incentive to pile up foreign reserves for self-insurance which may also be prone to moral hazard. Self-insurance will also

contribute to global imbalances rather than global rebalancing. I do hope advanced economies give more consideration to the global financial safety nets for the benefit of us all.

Conclusion

The global economy is in transition in many respects with rising hope for global recovery. But the road ahead is full of unknowns and uncertainties. We should be mindful of unintended consequences of global financial reforms and the risk of unstable equilibrium that might arise if uncoordinated policy competition leads to the fallacy of composition. I do believe that global policy cooperation can help mitigate the negative consequences of uncertainty in a world of interconnectedness and externalities, and that both advanced economies and EMEs can do more for global growth and financial stability by better sharing out responsibilities. I should say that global cooperation is the fulcrum of global growth and financial stability. As such, it should be the Zeitgeist of a globalized world at the time of transition under uncertainty.

Openness and integration has been the vision of Korea throughout its remarkable transformation process. I hope that Korea's economic successes and failures offer useful lessons to other emerging and developing economies, and advanced economies as well. My hope is now even higher as Korea took an initiative to introduce a knowledge sharing program at the G20 level as part of its effort to contribute to global growth through faster economic convergence.

I projected the same vision and hope onto the Bank of Korea. I have a firm view that central banks should and can lead global policy cooperation by establishing a strong network for information sharing and joint research. Guided by the view, I have worked hard to globalize the Bank of Korea since the first day of my tenure, and see now a bright light near the end of my journey. I think this is why I am standing with confidence before you here today.
Thank you for your attention.

Question and Answer Session

ROGER FERGUSON: Thank you very much. We will now have a question and answer session. As you can Jan Hopkins has the microphone, if you would be kind enough to raise your hand, wait to receive the microphone and then also please introduce yourself before asking your question.

BILL RHODES, MEMBER OF THE BOARD OF THE ECONOMIC CLUB: Thank you very much Governor for a very interesting presentation and for the excellent work you are doing at Bank of Korea. My question is concerning the possibility of Korea becoming a financial hub for Northeast Asia. This idea came out of the discussions of the Northeast economic block that former President Lee, former Premier Wen Jiabao and whoever was Prime Minister of Japan at the time, about putting that block together. The thought was, and particularly after the Korus FTA the Free Trade Agreement with the United States, that this would be a logical step forward.

I have heard also, Madam Park, President Park make positive comments about it. Do you think this is realistic in the sense of a possibility going forward and do you think that it would be positive for Korea? Thank you.

THE HONORABLE CHOONGSOO KIM: Thank you very much for raising a very important and interesting question. Before answering your question I would like to express my thanks to you for your contribution in concluding Korus FTA, he played a very crucial role in concluding the FTA and we appreciate it very much. Regarding your question about the possibility for Korea being a financial hub in northeast Asia, yes of course, the idea is still alive and we are moving in that direction, but as I said in my speech very clearly, we are lagging behind in financial deepening efforts as compared to our efforts made to liberalize our labor sector and as I said to you, we have made efforts to conclude FTA with already 45 countries. But usually those FTAs were used to strengthen our business relationships with our partners. And so now what we have to do is I think is to make further efforts to liberalize our financial markets and also establish better institutional settings. Let me tell you one thing. The last Saturday and Sunday morning I was in Washington during my visit to Washington to take part in the G20 and the IMF annual meeting, I had an opportunity to sign an agreement with United Arab Emirates and also Indonesia for currency swaps. And up until recently currency swaps were meant to be made between the United States and other advanced economies and developing economies as a way, as an instrument to stabilize their financial market. But this time it will stand between Korea and Indonesia at the same time, between Korea and Arab Emirates. The purpose turned out to be a

little different. We make distinction between investment activity and the difference between investment activity and also trade settlement. The main purpose of having such a ____ is to expedite trade settlements by using their local currencies. And I think this is the way to operate their reasonable financial cooperation and this is just to me, a very important beginning of let's say setting up more active financial systems in such a region. As you pointed out, yes we made it very clear, even a decade ago that we intended to be a financial hub in northeast Asia but we made efforts but it turned out to be not sufficient and we are fully aware of that. But during the course, just like other countries, we are so faced a very serious financial crisis and that is why we were a little lagging behind. But to put it differently, that turned out to be a moment by which we became, realized the importance of being a financial hub. So in that respect I think we will move in a direction and will continue to make further efforts.

Governor Kim thank you very much for this excellent presentation on Korea. I was privileged four years ago to listen to your presentation in Korea and I have to say, you emerged to a super emerging country. I wish that we were here, in our economy here, as emerged as you are. I wanted to ask you in terms of all the pointers, they all point in the right direction, there is only one little thing which is the household debt and the reason why I am asking is that we here in a developed country, this was one of our first problems on the Skye(?) which we are looking at right now. So I wanted to ask you what are you looking at and what are going to do about it.

THE HONORABLE CHOONGSOO KIM: Thank you Boris for your question. Mr. Chairman, I

guess I made a mistake this morning, I should have told you that central bank governors usually take only easy questions. (Laughter) This question is a little too difficult to answer. As all of you know these days every nation, sovereign state or every economy has difficulty in dealing with debt, sort of debt. Some countries have difficulty in dealing with sovereign debt, the other corporate debt, some household debt. So sort of ... but for the case of Korea, our sovereign debt is not a serious issue because the ratio of government debt to GDP is currently about 34 percent, which is by the standards of the advanced economies. So you cannot complain with the number of 34. But we do have a household debt problem in terms of the household debt relative to disposable income of Korea. It is probably one of the highest in the world. Of course it is a problem. I think we can approach the household debt problem or look at that from two different angles. One is that whether household debt problem could evolve or could develop as a cause for crisis, that is one. The second one is that how to manage macroeconomy with such a high household debt. For the first question I can say very clearly that Korea is different from Japan of the past and also different from United States of the past. When the sub-prime mortgage problem occurred in the United States, the let's say, the LTV ratio or other measures were quite different from those of Korea. We impose very strict regulations of LTV and DTI. So currently the LTV ratio is below 50 percent and what that means is, even if the real estate prices fall substantially or significantly, the soundness of the financial institutions will not be affected much. This varies not ... I cannot exclude the possibility completely, but there is a very little possibility of facing a crisis due to household debt problems. So to that extent I think we will somehow manage to the household debt problem. And furthermore, as you all know, there are

many, many ways to deal with the debt problem in general. An austerity program or restructuring program or inflate away program or growing out of debt and Korea sticks to the last one. We try to grow out of debt. So we try, for the moment, we try to contain the growth of household debt to the range of the nominal GDP growth. So we try to contain it. And after the global financial crisis is over, the crisis all over the world, we will make further efforts in dealing with this household debt problem. So unlike the United States and European countries, actually I hinted in my speech that de-leveraging did not take place much in Korea, so some people question that. But one of the main reasons I think for the moment, the most important, the highest priority is placed upon overcoming the crisis. So we try to contain the growth of household debt to certain range and so that the household debt problem cannot evolve as a crisis. Secondary, you may question whether Korea will be able to manage a macroeconomy with such a high household debt. What that means is that consumption, as all of you know, is the largest component of the GDP and due to high household debt our consumption cannot grow. And so clearly that is one of the headaches we currently face. And that is why our domestic demand did not contribute much to our economic growth. Next year we project to grow by 30.8 percent, but about half, or a little over half are coming from export sector. So the sources of growth are coming from the export sector. So domestic demand is expected to contribute to less than half of the overall growth. One of the main reasons is that the contribution of consumption to growth is likely to be small. And so we currently are trying to find ways to encourage businessmen to increase their facility investments, at the same time the government is making an effort to increase the investment in housing and other associated investments and so forth. So domestic

demand consists of consumption and investment in general and we have fairly stringent fiscal stance principle and therefore we don't expect much that government expenditure by running a deficit contributes to economic growth. So we maintain fiscal soundness and then we try to find sources from investment and others for the growth. I don't know whether this answers to your question, but as I said, from the perspective of a source for crisis I think we don't worry much about debt and as a source for ... not boosting the economic growth yes, we do pay attention, but we somehow....but the household debt is such a critical issue, we cannot .... again, we fully understand the seriousness of debt. So we will take a very cautious step to deal with debt.

BOB DAS FROM BGD HOLDINGS: Governor Kim thank you for taking the time to share your insights with us. I would welcome your thoughts a little further on a matter that may have a bearing on the medium to long-term competitiveness and growth of Korea. Reports suggest that if you look at the demography profile of Korea, in the foreseeable decades you are going to have more than 40 percent or up to one-third of the population above the age of 65 and that is a similarity you share with other developed nations. But unlike some of the other developed nations and like Japan, Korea is also a remarkably homogenized society, hence immigration as an offset is not as viable at least immediately. I would be curious, again I would welcome your thoughts on how are you looking at it from a medium to long-term thought factor on your competitiveness on the Korean economies competitiveness and growth. Thank you very much.

THE HONORABLE CHOONGSOO KIM: Thank you for the question and needless to say, this

is one of the more important questions that we have to address and we have to find ways to deal with. The current government's main objective of promoting the productivity of the economy by focusing on establishing creative economy. Creative economy consists of several elements but mainly the focus is on improving the productivity. That is the way to increase our potential growth rates. Relating to your question about the demographic change of Korea, the rapid pace of aging of Korean economy. We do pay great concern to this. Yes. The pace of aging is much faster for Korea than even some years ago of Japan. Our total fertility rates for the moment are between 1 and 1.2, which are much lower than those of other economies. But Korea is a little different from other advanced economies in that we are a little more flexible in our immigration policies. And we try to open the economy and not only the economy but the nation, and we understand the importance of making the old nation young, and so to that extent we take an open approach. But at the same time the current administration aims at improving the employment rate relative to non-institutional and civilian population to reach 70 percent before the end of the current administration. Currently, the ratio is about 64 percent. And that is the way to maintain our potential growth rate and so by improving employment rates, of course by offering more opportunities for women and for elderly people and so forth, we try to increase our employment rate and then that is one way to deal with the aging of the society. So on the one hand by establishing a creative economy, where productivity and technological development and the combination of the ITA with the traditional industry sense of both(?) but by making further efforts we will know that there is no panacea to achieve, to increase the potential growth rate by relying upon a single instrument. So we try to combine all available sources to improve our

potential growth on the one hand. At the same time, to utilize our current resources as much as possible.

ROGER FERGUSON: I see no more questions. So let us take a moment to thank the Governor for a very insightful speech and for the Q and A session.

THE HONORABLE CHOONGSOO KIM: Thank you very much.

ROGER FERGUSON: And before you go, I would like to remind everyone that Richard Fisher who is the President and CEO of the Federal Reserve Bank of Dallas will speak at a breakfast at the Hyatt this Thursday October 17th and then we will hear from Mark Carney, the Governor of the Bank of England at a lunch on December 9th. So thank you all for joining us and enjoy the rest of your day. Thank you very much.