An Overview of China: Economic Prospects and Challenges*

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I think it is no exaggeration to say—as I have spent a number of decades examining and benefitting from the experience of Korea—that Korea has been very good for my career at the World Bank. However, I was asked to speak about China today—a topic on everyone's mind. Let me start by highlighting some basic points.

In the world's worst economic crisis since the Great Depression, China's economy still managed to grow 8.7% in 2009. This is in stark contrast to negative growth rates in other parts of the world. In the first quarter of 2010—on an annualized rate—China is growing close to 12%, which I believe creates the danger of overheating as double digit growth is very hard to sustain. At the same time, the composition of growth changed during this crisis due to the very large fiscal stimulus package instituted by the Chinese authorities to make up for the fact that exports were clearly lagging. There was also a change in the composition of demand in the 2008 to 2009 period. In the last year alone housing prices rose substantially—almost 12% nationwide and 32% in the 36 largest cities. This is obviously why there is concern about a real estate bubble. The exchange rate has—since the end of 2008—been re-pegged to the dollar. After some appreciation over the previous period, the Chinese authorities obviously felt that in this crisis they did not want the exchange rate to continue to appreciate. This is a controversial topic, and I will come back to it in a moment.

The external picture for China is quite mixed. Although exports dropped precipitously in the second half of 2008 and early 2009 this was quickly reversed. There were very few countries that—other than Korea—have experienced this V-shaped recovery that is written about in text books. At the same time, the trade surplus has dropped from a high of nearly 10% of GDP to 5% in 2009. This is the good news. The bad news for those that are concerned about imbalances is that a 5% of GDP surplus is still quite substantial. This has led to an increase in foreign reserves—known to be roughly $2.5 trillion at the moment. As exports declined—and then began to recover—there was a shift in composition which saw exports drop from about 40% of GDP earlier in this decade to 27% with a commensurate increase in government investment.

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In Figure 1 there is only one line that I find particularly interesting, and that is the calculation of the output gap—the difference between where the economy is performing and what the potential growth rate is. I will come back later to the fact that I am not a great fan of calculations of potential growth rates. This is not because they are done by my former sister institution, the IMF, but because I do not believe all the factors in the potential growth rate calculation are immutable. That is, that they are not subject to policy change. The interesting point is that in 2009 and 2010, and in the forecast for 2011 as well, China's economy is basically operating at its full potential. There is no output gap according to these calculations. One has to wonder how long an economy can produce that potential growth rate without inflation taking hold. An honest assessment of China's prospects in the next few years has to be rather positive because global exports have recovered, consumption is stable, and this will allow the government to reduce its fiscal stimulus. The stimulus in China has been reported to be close to 6% of GDP, although only about half of that can be found in the fiscal account. In other words, half of the stimulus package was financed off the balance sheet of the central government through the banking sector.

Figure 1

China: Main Economic Indicators

(percent change, unless otherwise indicated)

	2006	2007	2008	2009	2010 f	2011 f
The real economy						
Real GDP	11.6	12.9	9.6	8.7	9.5	8.7
Domestic demand 1/	9.7	10.7	9.4	13.8	9.7	8.6
Consumption 1/	8.4	10.1	8.8	9.7	9.6	9.1
Gross capital formation 1/	11.1	11.4	10.2	18.3	9.7	8.2
Contribution to GDP growth (pp)						
Domestic demand 1/	9.4	10.4	8.8	12.7	9.1	8.3
Net exports 1/	2.2	2.6	0.8	-3.9	0.4	0.5
Contribution net exports (WB, pp) 2/	3.8	3.4	1.8	-4.8	0.4	0.5
Exports (goods and services) 2/	23.8	19.9	8.6	-10.6	14.7	9.4
Imports (goods and services) 2/	15.9	14.1	5.1	3.9	16.4	9.2
Potential GDP growth	10.5	10.4	10.1	10.4	9.3	8.7
Output gap (pp)	0.0	2.5	2.1	0.4	0.6	0.6
CPI increases (period average) (%)	1.5	4.8	5.9	-0.8	3.7	2.8
GDP deflator	3.6	7.5	11.4	-2.1	2.7	2.6
External terms of trade	-0.8	-0.9	-4.3	8.6	-2.9	-0.1
Fiscal accounts (percent of GDP)						
Budget balance 3/	-0.8	0.6	-0.4	-2.8	-2.8	...
Revenues	18.3	19.9	19.5	20.6	19.6	...
Expenditures	19.1	19.3	19.9	23.4	22.4	...
External account (US$ billions)						
Current account balance (US$ bln)	250	372	426	284	304	341
As share of GDP (%)	9.4	11.0	9.4	5.8	5.5	5.4
Foreign exchange reserves (US$ bln)	1066	1528	1950	2400	2818	3289
Other						
Broad money growth (M2), e-o-p (%)	16.9	16.7	17.8	27.0	17.0	...

Sources: NBS, PBC, Ministry of Finance, and staff estimates.
1/ WB estimations using data on contribution to growth (Table 2-20 in China Statistical Yearbook).
2/ WB staff estimates based on trade data for goods from the Custom Administration, adjusted for estimated difference in price development for services trade.
3/ For 2009 and 2010 this is the commitment data presented to the NPC.

The labor market is the major preoccupation in China and the reason why the exchange rate has not been allowed to find its natural price. Despite some initial increases in unemployment, the domestic stimulus—which largely substituted government demand in infrastructure for exports—has absorbed a fair amount of the labor.

Let's turn to inflation expectations. If one looks at the double digit growth in early 2010, as well as the appreciation in housing, it is reasonable to begin to worry about inflation—particularly if this were not China. China has some mechanisms to enable it to deal with inflation the way market economies obviously would not. But one would think that under those circumstances tighter monetary policy and exchange rate appreciation would be the right combination of tools to deal with inflationary expectations. I will come back to that later. So as I said, China is operating close to its growth potential while in the United States the economy is operating 5% below its potential.

Figure 2

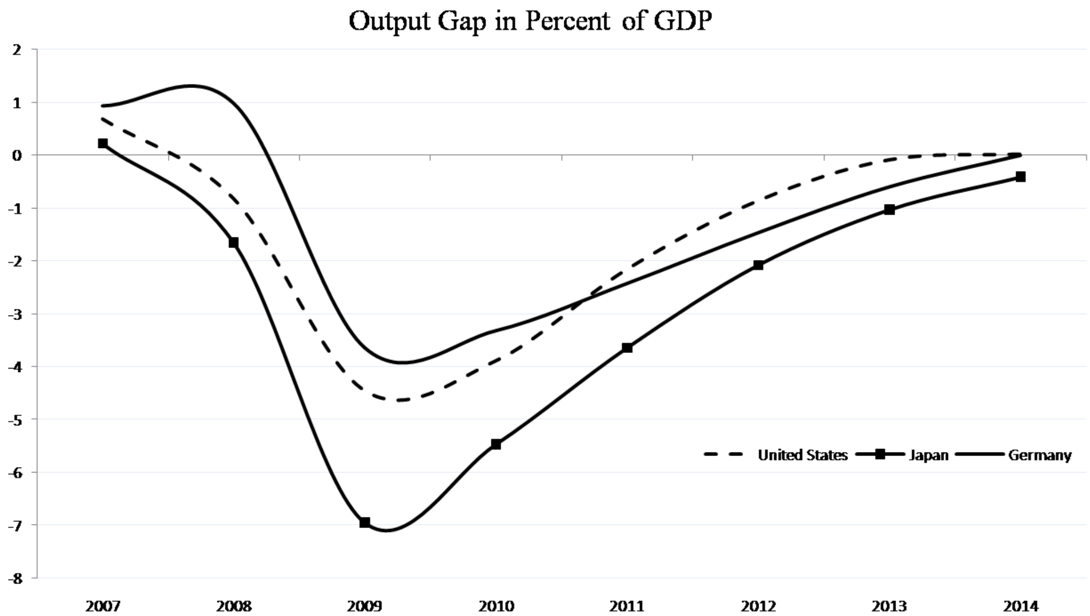
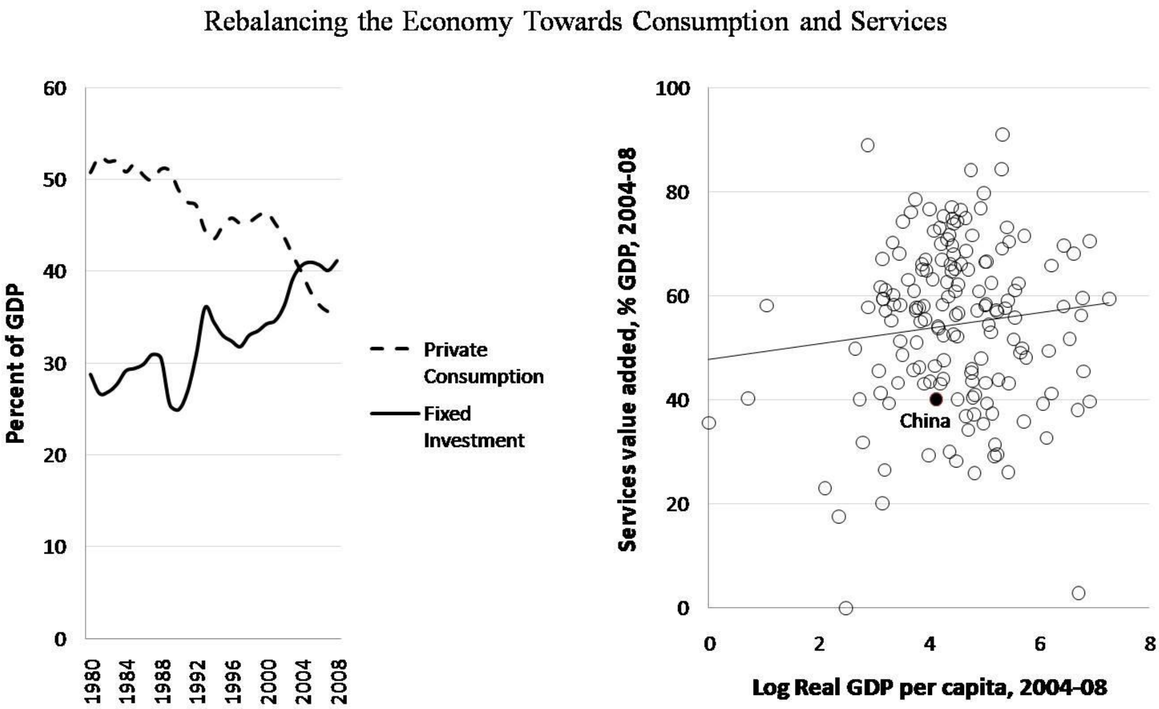


Figure 2 presents a very dramatic picture of potential growth rates for the United States, Japan, and Germany. For all of the major economies it only gets back to its potential growth rate trend by about 2014. It gets closer in 2012, where it is only 1 to 2 points below potential, but this is in contrast with China which is operating close to its potential and gives some idea as to why people have been relying on Chinese demand.

The graph on the left in Figure 3 plots what has happened to private consumption and fixed investment over the last 25 years. In general, consumption was coming down prior to the crisis, and fixed investment was increasing. The trend of consumption in the 2008 ~ 2010 period is basically flat in China, and exports obviously fell. The piece of aggregate demand that was missing was taken up by government spending. On the right is the percentage of GDP that is accounted for by the service sector compared to the log of GDP. While it is natural that the service sector will grow, China is significantly below trend among the 100 countries represented in Figure 3.

Figure 3

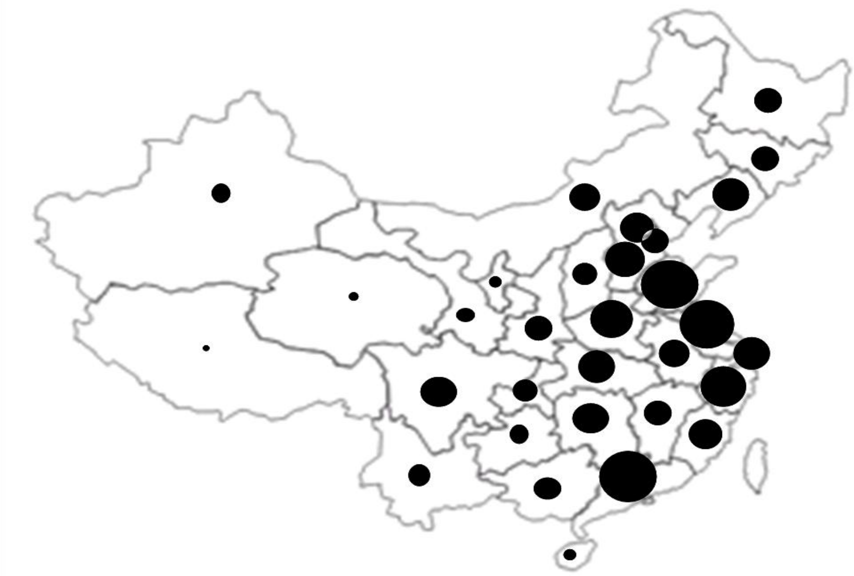


Another imbalance, if it can be put that way, is the location of GDP production. No one says that there should not be growth poles, or centers of growth but—as illustrated geographically by the size of the circles in Figure 4—GDP is largely produced by coastal provinces. This is not news to anyone working in China, but it is useful to see a map of the entire country and realize that this is at the heart of a lot of the transition problems that the country has faced. First, hundreds of millions of people are coming from rural areas to the coast for employment. There are also very large income disparities between urban and rural and between the major growth poles and the poorer parts of the country. This is not an issue for short-term economic management, but it clearly is an issue for longer-term economic management.

Coming into 2010, the government's policy stance has been to keep the economy on as high a growth path as possible—especially after pulling out all the stops in 2009. I already said that on the fiscal side—even though the numbers show a 5.8% fiscal stimulus—the fiscal deficit is about half of that. Nonetheless, there was a tremendous fiscal effort which was matched by very loose credit. A 30% growth in credit in 2009 would make even Alan Greenspan look like a conservative on monetary policy. Although this year China says that credit will rise about 18%, it has also instituted some measures to reign in credit—be it on reserve requirements of banks or curbs on second or even third home ownership. Obviously, China has some means at its disposal that are not in the classic text book of central banks, but some monetary tightening can be expected. At the same time, the fiscal stance will remain stable, and the deficit is still in the manageable range although there are problems reported at the local government level.

Figure 4

GDP Production by Province



In China local governments are able to create state enterprises at the local level by either mortgaging land, selling it, or borrowing from the local bank. This means that local governments were able to live beyond their means. Of course, this is fine when interest rates are low, but it can become a problem when interest rates start to rise. So this is something that is on the horizon. As I said, the current account surplus is now only 5% of GDP, but even 5% is a problem when the world is trying to recover from this deep recession. I think it is the same concern one might have about the Eurozone—forgetting about exchange rates for the moment—where there is a country like Germany which has a large surplus. Even in that grouping, very large surpluses imply large deficits on the parts of others, and if they do not have the fiscal position to sustain it the problem of twin deficits—which characterized the U.S. economy going into this recession—becomes an issue. In the medium term the challenges facing China are to rebalance, with the sources of growth coming increasingly from domestic consumption, without triggering further inflationary expectations. I think it is remarkable that with the growth rates being in the 9% to 10% range there has not been—except in the housing market—widespread inflation. There may be various explanations for this, but I would be surprised if inflationary pressure did not continue.

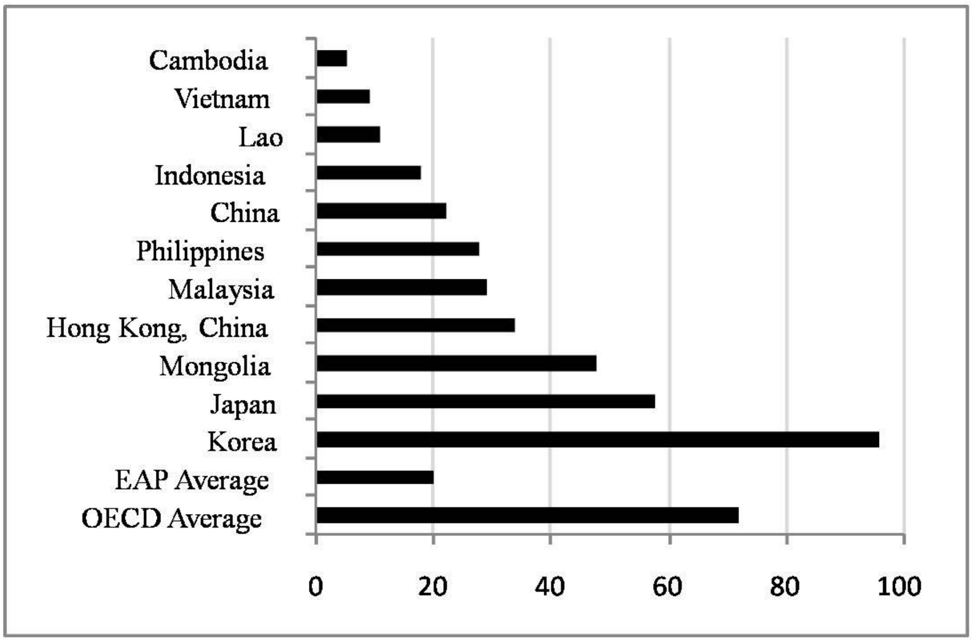
The second medium-term challenge is spatial inequalities because this affects jobs, migration, congestion, and harmony—one of the stated goals of the 11th Five Year Plan. Looking at Figure 4, it is hard to see a harmonious society with such large inequalities. I think a challenge that China itself has identified based on growth accounting is the need to increase the efficiency of public investment, particularly now that it has received this large jolt, and the need to see increases in total factor productivity (TFP). TFP is much easier to raise in manufacturing than in services, and we see that in Korea. As it makes this transition to a larger service economy—although China is many decades behind Korea—it will also face the problem of lower TFP. There will be issues of economic wealth which will begin to dominate the interest of the population. Obviously, China has the political means to suppress that at the moment but, just as in the OECD countries and elsewhere, there are new concepts about economic welfare. This includes the economics of happiness and a number of other variations on the welfare theme. I do not think the Chinese population will be immune to these pressures, and at the same time the government will eventually have to review its own role as it inevitably will have to step back from some economic decision making. It will have to create either the institutions or mechanisms to allow markets to work but not allow them to misbehave. So we have learned a lot in this last crisis. If anyone saw the book by Akerlof and Schiller, entitled *Animal Spirits* (Princeton University Press, 2009), it recounts hundreds of years of the economic thinking that markets should not be left unattended, but I will leave that for the question and answer session.

Let's take a look at China from a few different angles. Figure 5 shows tertiary education percentages for a number of East Asian countries, with China ranking between Indonesia and the Philippines.

I also like this chart because it shows Korea versus the OECD average. Korea—like in ice skating—outperforms many other countries. We can also look at how countries do in terms of innovation. I am not a huge fan of the use of the number of patents to measure innovation, but it is a commonly used measure. The United States, Singapore, Japan, and Korea have much more going on in terms of patents and innovation than does the average nation. This is only interesting when contrasted with countries like China, and some other East Asian nations, that are a bit behind the average in terms of patents and innovation. This helps to explain China's thirst for technology and access to that technology. Someone asked me how Korea should feel about China wanting access to all of Korea's R&D and technology. My off-the-cuff response was that the shoe is now on the other foot, and Korea now understands how Japan felt when Korea was chasing it.

Figure 5

Access to tertiary education in developing East Asia
(tertiary gross enrolment rate, in percent)



Let me now turn to the long-term. As I said, China lags far behind in certain aspects of education that are extremely important for the service economy. High productivity in the service economy is not attainable with such a low level of tertiary education. There are also going to be issues of healthcare. As it turns out, the allocations—public monies that go to hospitals—in China are based on a formula of which the major variable is how many pharmaceuticals that hospital dispenses. That, multiplied by some number, gives the allocation of resources for the hospital. That is not a good way to do health care—unless one happens to be in the pharmaceutical business—and it will eventually start to cost increasingly more. Moreover, the quality of care is not high.

As I said, China lags in the field of innovation although it has been very successful in aspects of industrial policy. One has to be very clear that China's planning has been very good. Go to Shanghai and look at the model of the city where small Legos show what will be built in the next five or ten years. Obviously, China is thinking ahead. Of course, the building of new cities and ports becomes much easier when properly financed, and inconveniences like hurdle rates and the costs of capital do not have to be dealt with. But I think an honest assessment would be that China has been very effective, and presumably it will continue to be so.

Nevertheless, the society is aging, and as the population levels off this will create problems for China and other nations going through the same experience. There were reports in the news in the last few days about how the Japanese are going to deal with the shortage of labor by using robots. The Japanese public feels more comfortable with robots than they do with immigrants, which is an interesting sociological observation. Anyway, whether it was the one child policy or just normal economic growth, there is a pyramid that is going to change shape in China. There will be a smaller percentage of the population needing to support a larger percentage of the population.

The pension system is not quite up to standard yet. There are issues of portability. If a person moves from one part of China to another can the pension be taken along? These are big issues. I mentioned climate change as being a longer term challenge. Not because the global pressure is going to get to China—I think China is rather immune to it—but it is realizing on its own that not dealing with climate change issues is going to be more costly in the long term. So it is in its economic interest to deal with it sooner rather than later as eventually the clean-up costs will be higher.

Regarding international factors that affect China, I am in the camp that feels China was given a free pass on the exchange rate, but that free pass seems to be eroding. In the last year we have had world leaders from Europe, the head of the IMF, and many others mentioning to China that its exchange rate is out of line. But—as in most issues of economic policy—I think China will deal with it because it is in its interest. There are good reasons to support the gradual appreciation of the exchange rate. First, inflationary pressure will be abated. Second, domestic consumption will increase. Those are two issues that are in China's national economic interest. Obviously, China does not want the exchange rate to affect exports, but I think China's competitive advantage in some of areas is significant already. Increases in productivity can make up for changes in the exchange rate. So as I say, this will help consumers to gain and will reduce inflationary pressure. I also happen to be one of those contrarians who is not yet willing to entrust the world economy to one of the new entrants. Let's remember that China's economy is $4.2 trillion compared to a global GDP of $60 trillion—with the United States somewhere about $14 trillion. While China is extremely important because of its impact on global growth, its demand for natural resources, its huge stock of reserves, and a very high carbon-intensive growth path, let's also look at 4 versus 60. The level of reserves will be about $2.8 trillion by the end of this year, and that is in a country with a per capita income of approximately $4,000. That is $2,000 per head—or half a year's earnings—that every Chinese citizen has sitting in the central bank of China. That is a fairly large number. If it were put to referendum, which obviously it would not be, I would expect the Chinese public to prefer to spend some of that money.

What can China learn from The Korean experience? First, China can learn that the exchange rate is only one of the tools of national economic policy. Korea was always conscious of the competitiveness of the exchange rate, but it never allowed it to be so far out of line that it either caused international difficulties or allowed policy makers to forget other important aspects of economic policy. Second, the transition to a more balanced economy favoring consumption can be successfully navigated, but in my view it requires a strong and safe financial sector. When people ask me how Korea made this transition to encourage more consumption my answer is usually two words: credit cards. I think a brief walk around Myeong-dong is illustrative of how that transition occurred. More seriously, I think if the Chinese public is to increase consumption beyond the speculation in housing, a prerequisite is to deal with the financial sector so there will not be difficulty in the future. It obviously requires effective regulation because the capital account is not open in China, and the exchange rate is not flexible. So when the capital account is opened, and the exchange rate becomes more flexible, those changes need to be preceded by some regulatory changes. As I have mentioned already, the importance of the service sector highlights the area of education and the knowledge economy. In some parts of the world this is just a catch phrase, but in Korea—apart from renaming the ministry—it has been a very clear agenda item for the government.

For Korea, there are implications as China's economy moves forward. I think that China plays an interesting role as a hugely important market, but also as a strategic competitor. What that means for the way in which companies operate in China differs by sector and corporation. I read a lot about joint ventures in China, and while I do not know if these joint ventures are hugely profitable, it is clear that everyone wants to have a foot hold. I do know that for American companies it is a mixed picture. I think technology is obviously the key determinant of competitiveness. Korea is spending a lot on R&D and it is trying to identify future industries. It is interesting that in the 1980s Korea was largely criticized for the heavy chemical industry experience but, while it was a mixed outcome at the end, without that experience some of the large corporations that are currently experiencing success in the international market would not exist. Industrial policy does still exist, but fortunately it is not connected to a repressed financial sector. It is not that subsidized credit has disappeared, but there is this very interesting—and in my view productive—relationship between government and business in identifying sectors that may be competitive in the future based on technology. Technology has aspects of a public good which makes it amenable to public policy if done in the right way. I think Korea's three leg policy of exporting to the United States, the Eurozone, and China was obviously sound and successful. At least one of those three markets was functioning fairly well over the last two years which helped Korea's V-shaped recovery.

Recently there have been some editorials—including one by my former boss, the president of the World Bank—about how the world is now a G-2 world. He did not ask me before he wrote that editorial, and I do not think he would have changed his mind, but I happen to think that this is wrong. I think that China is still an emerging economy, and its goals are still quite dissimilar from the OECD countries. Although it is growing faster than others it is not on par, and public demand—once it is allowed—will create policy trade-offs and inconveniences that the current government is spared. The prevalence of market interference—whether in the form of Google and intellectual property or in other areas—makes China a less reliable economic partner. One does not need to look at the Doing Business surveys to discover this. It is obvious. I do not think that global concerns are yet sufficiently high up in the list of priorities for China, but that will change, which brings me to the last thing I would like to cover today—the future pace of globalization.

Recently, one of the final volumes of the Growth Commission—on which I served along with Han Duk-Soo and a number of other senior policy makers from around the world—was issued. The first report was issued in May of 2008, which was not the best of timing, and the second report was issued in October of 2009, after the crisis. All of the reports looked at the major drivers of growth historically, what do policy makers think of those drivers, and what do policy makers advise. As part of the last round of analysis we had a number of conferences with many of the names regularly seen in the Financial Times and elsewhere discussing what globalization might look like in the future. Some of these papers are compiled in this book that Professor Michael Spence and I put out. I think it is fair to say that going forward we expect global growth will be lower and below its potential for a number of years, and this will raise concerns about jobs, distribution, and fairness. In many countries the commitment to the open trading system will be challenged, particularly where domestic unemployment rates are high and where the distribution of income has become rather unequal like the United States—in which the distribution of income has gotten successively worse over the last 15 years, the distribution of wealth is even more skewed, and the average worker has not seen an increase in real income since the early 1990s. This will have implications for the future of globalization. Industrial policies, however they are referred to, will become more prevalent in political economies.

As I alluded to before, there was criticism of industrial policy in the 1980s, but there was a reassessment in the 1990s. I, along with Dani Rodrik and a few others, was open-minded to industrial policy if done in a smart way. I now think that the pendulum is swinging in that direction. There are many European countries looking at aspects of, what we would call, industrial policy. As I said, there is a difference between industrial policy where credit is controlled and provided at subsidized rates, and saying electric cars may be a good idea and the government—in partnership with business in such a way that business bears the risk—puts money toward R&D that could help solve the technological problems. Then, if electric cars fail, it is a company failure and not a government failure. Nevertheless, industrial policy is not the dirty word that it was a decade or two ago. As I said, the nexus between government and business needs to work. Some countries have been successful, many of them in East Asia, but also in parts of Europe even though it is less well-known. I think Finland has had a very strong industrial policy, and as long as industrial policy revolves around science and technology areas—and is well-constructed—one can make an argument in favor of it. In the end, I think the pendulum has shifted towards the East Asian way of doing things.

My final thoughts will be on Korea's economy, on which I am optimistic. I think that the management of the crisis has been exemplary, both in terms of the stimulus package as well as monetary policy. It was done in text book fashion, and has led to a V-shaped recovery. The monetary quantitative easing that took place can be easily reversed. I think the green growth agenda, quite apart from politics, was a very smart way to package the fiscal stimulus. I think the big issues in fiscal stimulus discussions were on how to spend the money. In the United States there was a big debate whether it should be tax reduction or expenditures. Then, even within expenditures, because of their long lead times, should all of the bridges just be repainted? That is a fiscal stimulus as it creates employment and is probably a good thing, but it does not have a huge rate of return. So the green growth agenda has worked very successfully in Korea. I say this because I am here with 20 George Washington University MBA candidates looking at green technology areas. I think this is a good combination of fiscal stimulus with smart policy going forward, particularly since the green technology is centered on exports. I think in terms of the short-term Korea gets an A, and in the medium-term things are very wisely put together. For the long-term let's return to potential growth rate calculations.

Prior to the crisis, the IMF had done some potential growth rate calculations for Korea, and it showed that over the long-term the growth rate would decline to a rather low number, particularly for East Asian standards. A year or so ago a colleague and I took a look at those calculations[1], and we found

[1] Ianchovichina, Elina and Danny Leipziger (2008). How can Korea Raise its Future Potential Growth Rate? *World Economics.* Vol. 9 No. 4. October – December 2008.

that there were three factors that could affect Korea’s long-term potential growth rate in a significant way. By significant I mean raising it by two percentage points in the theoretical models if everything was done. The first factor was retirement age. Given demographics, Korea cannot afford to have people retire at 55 if they are going to live until age 80. For 25 years someone else has to pay for them. So this is an issue given the size of the labor force. Second, female labor force participation has a long way to go in Korea. It is below Japan and way below the OECD average. Currently, women are getting into the labor force at junior levels with greater ease, but I do not see that many vice ministers of finance or trade who are women. I think there are obviously social and other issues to be dealt with, but unless Korea wants robots, Korean women would be much better in the labor force. Finally, TFP in the service sector needs to be dealt with. So we made adjustments on these three things. We brought TFP up to the levels close to the TFP that is seen in manufacturing, we brought the female labor participation rate up to Japan’s rate, and we changed the retirement age from 55 to 62. With these changes the potential growth rate can be significantly affected.

Finally, Korea has an opportunity to assert itself globally using the G-20 to its advantage. It should not just be a one-off leadership position. There is some debate about whether every country in the G-20 merits membership, but Korea certainly does, and so it has opportunities for leadership. Many still see Korea as a much more reliable partner than China. It may be a much smaller market, but it is a much more predictable and open one. Thank you for your attention.

Q It was mentioned that China’s stimulus was 6% but balance sheets only showed about 3%. Would you please highlight the connection between the two? Also, it was mentioned that in 2009 credit growth in China was 30%. At this time, China was already under the policy of credit tightening. I would like to know how and why the policy of tightening created a 30% expansion of credit. Finally, it was mentioned that the pendulum in industry policy is now swinging back to be more in favor of industrial policy. This is very interesting in light of the fact that Japan was very famous for Japan, Inc., when the entire country was under industrial policy, but currently it is completely out of industrial policy. However, the United States had an industrial policy in the housing sector which turned out to be a debacle. In view of those experiences, how do you view the long term world trend towards globalization?

A Let me answer in reverse order. It is true that support for the housing market could be seen as an interventionist policy which failed. But it depends on how industrial policy is structured. I was careful to put most of my positive comments on the R&D side. I think even if industrial policy is put in a positive light—but many other things are done wrong—it is not going to work. In the housing sector in the United States many things went wrong. Government was encouraging home ownership—which the question defined as industrial policy and is possible— would not have been possible had interest rates not been kept well below what the Taylor rule, or any other objective measure, would have called for. So I guess my answer is that industrial policy can either succeed or fail depending on the complementary policy environment. I think the United States did a lot of things wrong with monetary and supervision. For its part, Japan is doing a lot of things that are keeping it in a negative growth trap. On the question of credit tightening, I am led to believe that China used other means to try to tighten while at the same time still providing credit. I have the feeling that in 2008 through 2009 China pulled out all the stops. It did the maximum on fiscal and monetary and then tried to tighten up on the housing market but not credit per se. We have to remember that international credit dried up, and Korea also had issues in 2008 with rollovers. Brazil put a lot of money through its state banks when the international markets cramped up. I would distinguish between overall credit availability and trying to tighten up in the housing market. On the fiscal side, I do not know enough to give you the right answer. I am dealing with reports that said only half of the deficit showed up as fiscal. That state banks and others were acting in a way that was the equivalent of fiscal stimulus. I do not have the exact details as to how it was done, but it was obviously done differently than in Europe, and I have the feeling that there were off-balance sheet ways in which fiscal stimulus was provided.

Q What kind of political system might China have in the future? There are different estimates on when China's GDP will exceed the United States, and Korea has been a successful model of both economic development and transitioning political systems from a dictatorship to democracy. Many people believed that once GDP per capita exceeded a certain level the people's desire for democracy and freedom would become so strong as to create change in the political system. Will China be able to maintain this one party system or will there be a transition to democracy? If there is change to a new system, there is bound to be turmoil. How can such turbulence be overcome?

A I am not sure economists are the best to answer that question. That people's demands for a better life and more consumption go up with development is clear. People's interest in democracy is probably not a linear function of economic progress. They are probably quite interested at lower levels of development, but it is just that subsistence and other things dominate their concerns. I think it shows up later just because the fact that other things recede in importance. I am not able to predict what kind of system will emerge, but this preoccupies China as well. There are models which China does not want to follow, such as the Russian model, which creates crony capitalists. There is Vietnam, which is still a one party state, but has opened up its markets much more. When a new class of people that have a lot of wealth is created it is not good for democratic development. So yes, there may be a time when China's economy surpasses the United States. Whether or not it will be a one party state at that time I cannot predict. The difficulty is that it is hard to construct the political system as wanted. The country that was most able to do that was Singapore. Although it was a one party state, it seemed to stress meritocratic features and seemed to make that transition very well—albeit in a small island economy. Doing it in Singapore and doing it in China are totally different stories. So, I do not know the answer to that question.

Q A few years ago some experts on China's economy raised the issue of non-performing loans (NPLs) in the banking sector in China, which accounted for a big portion of China's GDP. Some say it was as much as 30% of China's GDP. But these days such discussions are seldom raised, and I wonder why. You also did not mention NPLs in the banking sector in China. Did China successfully resolve this issue?

A I remember that when I went to China in the 1990s state-owned enterprise (SOEs) issue and NPLs were the major preoccupations. I am assuming the quality of the supervision has improved. I have not seen a recent number, but I do not think NPLs are anywhere near 30% of GDP today. So it may be that the problem has gotten smaller. The second answer might be that with abundant credit and very low interest rates a lot of things can be hidden. So even if NPLs are 10% it is not discussed when there is ample credit. But, as in any economy, the issue of NPLs may come back if and when the interest rates begin to increase and people cannot repay. My understanding is that the Achilles heel of the SOEs is the local government ownership. The third way is to look at it is that with $2.5 trillion in reserves bail outs become easier. I think the problem is a lot less than it was a decade ago.

Q It was mentioned that China is not doing enough for the environment, but I have also heard the opposite said. People working on this issue say that China is adamant in refusing any externally imposed rules; however, internally it is very worried about the environment. From the specialist's point of view China is really doing the best it can do. Also, most of the government-sponsored stimulus packages are notoriously ineffective. How do you see the stimulus package? Were there any productive results?

A Well, there were positive results to the extent that it was spent on already planned infrastructure. This is one of the difficulties of unplanned economies such as the United States' where there is no stock of investments that have been properly vetted that can be accelerated. My impression is that China, because of the planning mechanism, was in a position to accelerate investments which had a decent rate of return. So contrary to the painting bridges and repaving roads—which all countries do to some extent to create employment—I have the feeling that China was much more strategic in how it did it. On climate change, I agree that the China is going to do what it is going to do. Three or four years ago the classic solution to the problem of global externalities of China building one dirty coal-fired power plant per week was to make the Chinese government indifferent to building a $250 million dirty power plant versus a $350 million clean power plant. The difficulty is that the economy that is producing unwanted carbon is also running a current account surplus of 8% or 9% of GDP, and accumulating reserves that are unknown in modern times. Thus, it is very hard to say that China should be subsidized. Moreover, China does not want to be dictated to by the international community. All that said—and I am not a climate change expert—I do sense that in the past two years China's position on climate change has changed. I think it is beginning to see it as in its interest. It becomes a question of the $250 million power plant being cheaper today, but the cleanup costs, the reduced life expectancy of the population, and the increased health problems make it a smarter thing to improve now. I think that is the trend.

Q The United States views China's currency as undervalued by 20% to 40%. Of course, China does not admit this. China sees this as a power game between the two nations, and declares that it will not yield to external pressure on this issue. What is the likely compromise between the two nations on this currency issue? When will China relax on this issue, how much will it relax, and in what way?

A Obviously, I do not know. I think the undervaluation point is widely recognized, and there have been a number of interesting editorials that equate the undervalued exchange rate with different a form of protectionism. Some people have even tried to do calculations showing that the undervalued exchange rate is equivalent of a 20% tariff. I think 40% is a bit high, so let's just use 20%. There is no doubt that the exchange rate is out of whack. But the United States is in a very weak position to impose anything these days. I am not personally worried about China dumping its dollar securities as it will lose more than it will gain. But the United States has been preoccupied and also aided and abetted the imbalance problem. The imbalance has two sides, supply and demand. The fact that China has subsidized the exchange rate was matched by overconsumption in the United States. So there is no moral high ground in that equation. In my talk I suggested that—similar to the climate change issue—China will not necessarily bow to international pressure, but it may bow to its internal cost-benefit analysis. I think as long as it can maintain a relatively competitive export bundle China can afford to see the exchange rate appreciate. It will be a good anti-inflationary tool and it will increase domestic consumption. If a Chinese policy maker was told that the demand curve for exports had a certain elasticity, and the exchange rate could be changed by 10% without much pain being felt, that would make sense, and it would bring some international recognition. For China it is a question of making sure that it has sufficient engines of domestic employment as the economy rebalances with greater emphasis on consumption. China can then control employment a bit more at home, rather than having to worry about the export as being the only driver. To the extent that China can improve productivity and the competitiveness of its products beyond the pure cost of labor, I think it can also afford to see the exchange rate move. I do not know when or by how much, but I think in the medium-term the RMB will appreciate. It will be because the China realizes that it is a smart policy.

Q What do you think about China's capital controls in the immediate future?

A I think that is an issue that China will look at in a very pragmatic way. I have views on capital market opening and I think countries should move towards open capital accounts. We have experiences where the regulatory regimes have not been up to speed, so China would need to work on that. The current discussion in the Financial Times is in the opposite direction. No one wants to go to capital controls and currency inconvertibility, but there was a lot of discussion when Brazil put a tax on capital imports. I actually wrote a reply to the Financial Times in which I opposed it, as I did not think it would be effective in preventing the appreciation of the Brazilian currency, it would raise interest rates domestically, and would send a bad signal for many reasons. I think everyone agrees that this is correct, and it did not achieve what the Brazilian authorities wanted to achieve. That being said, I also happen to have been on the minority side of the argument when Chile created additional reserve requirements on short-term capital flows. Most Chilean economists, many of whom attended the University of Chicago, were opposed to it. I think it helped Chile in the crises of the 1990s, and there is nothing wrong with governments signaling a preference against short-term hot money. That is a public policy decision because at the end of the day when the money flows out governments are left with the result. I see nothing wrong with some disincentive for shorter term capital flows. That is just to say that, in the spectrum of laissez fare and control, there is some point in the middle in which it is better to have some control over the types of flows without controlling the capital account the way China does. It is a long answer to the question, but I think China will move towards greater convertibility and greater opening of its capital account. However, if I were advising China I would not go cold turkey. I would discriminate, and I think governments should say that they prefer FDI, with long-term money being a second choice, and with little interest in short-term money. It affects the exchange rate, there is no control over it, and it makes other aspects of economic policy much more difficult. I would draw the line somewhat short of complete openness.

Q There are some criticisms of the G20 summit, the role of the G8, and the G2. People say that the G20 was invented to cope with the financial crisis, but that the G8 will play the main role to cope with some kind of economic system. What is your view on the G20, and the role of China and Korea within the G20?

A I think it is an interesting development that the shift from the focus on the G8 to the G20 happened to coincide with a global crisis which transcended the G8. I prefer the G7, as I have a bit of a problem with the 8^{th} member, but I think the G7/8 are an anachronism. These nations do not control sufficient proportion of world GDP to be the spokesperson for it. The G20 is sort of a convenience. It existed, and it was a convenient alternative. It is not a bad grouping, but there are some odd members of the G20 which would not necessarily be placed there based on economic strength or on the quality of economic policy. It is an imperfect grouping, and the EU has a seat, which I have personally always opposed. It should be the G19. I do not think we will go back to a G8 dominated world, in part because of what happened in Copenhagen. It appeared that President Obama was making deals with members of the G20 but not with members of the G8. I think it means that within the G20, which is not a bad group of overall economic share, there will be different coalitions and different groups which will work on various things. This is an opportunity for Korea—if it can connect to some other players in the G20—to assert some leadership. Let’s look at the Doha round, which is pretty much dead. If Korea could get China, Brazil, and India together to reinforce the international appetite for sticking to global trade rules and openness—whether that means ratifying Doha or not is another story—that would be a coalition of very powerful international trading economies; since the Europeans are somewhat preoccupied with the value of the Euro and fiscal issues, particularly post-Greece, and the United States has been pre-occupied with trade issues because of domestic concerns. A good example is the Korea-U.S. free trade agreement. The reason for non-ratification is not really about Korea. So who is going to take up the mantle this year in the G20 context for certain issues? I think it will be a subgroup of the G20 depending on the topic. I am not so worried that we are going to return to the status quo.

Q9: I think the decline in the potential GDP growth in Korea is not caused by a shortage of labor, but by a shortage of domestic investment and private consumption. In this sense, your stance on the importance of women’s labor market participation and the change in the retirement age does not seem to be consistent with the reality that Korea now faces. Do you have any comment on this?

A The potential growth rate calculations basically come from three factors: capital, labor, and technology. You are focusing on capital. I am focusing on labor and technology. I do not think lack of capital will be the prime problem in Korea—it has very high savings and investment rates. It is an empirical question: how much future growth will come from capital, how much from labor, and how much from technology? I think we would agree that TFP has declined in Korea, and that it is lower in the service sector than it is in the manufacturing sector. So we would agree on the technology aspect. I am focusing on labor because the labor force for 2020, 2030, or 2040 is largely determined by birth rates today. Those birth rates are rather low. I am not saying that it is a problem now, but it will be an issue for the future, and it can be addressed in a variety of ways. For one, the birth rate could be raised. Another relatively simple way is having people work until 62 years of age. Greece, for example, had a retirement age of 55, and in this crisis raised it to 67. Imagine the person who is 54 and is suddenly told they have to work another 12 years. That is a major shock. At the World Bank I was involved with the Gender Action Plan, where we were trying to get more productivity out of the female labor force. So you are focusing on capital, I am focusing on labor, and in that way our views might be complementary.