

The Outlook for the US Economy, the Dollar and US Trade Policy*

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My message this morning will basically be that it is a good thing for Korea that you are closely linked to the US economy. As you will see, I am extremely optimistic about the course of US economic activity today, in the short run, and especially in the long run. So if your fortunes are importantly hooked to those of the United States, I will not say you can rest easy because there are a lot of uncertainties and lots of fluctuations in the markets. But the underlying outlook is very clear, very positive, and therefore should be very encouraging for you.

I would start my simply noting the current situation. I normally do not do that. But there is so much loose talk, including in the United States, that you might think we were in a recession or experiencing bad economic times or somehow in deep trouble. But the facts are to the contrary.

In the first quarter the US grew 5%. In the second quarter, domestic demand—which is what counts for the rest of the world—grew 3%. In the third quarter, which ended ten days ago, we grew probably a little over 4%. So for the first three quarters of the year it has been 5%, 3% and 4%. That is an average of 4% economic growth. There has been no recession, no double dip and no deep peril, though you might sometimes think from listening to commentators who overestimate the impact of the market rather than the real economy that we were already in deep trouble.

I say that merely by way of setting the base line and the back drop. The interesting question is what happens going forward. Let me take that in two pieces. I will start first with what I think is the more important piece, the medium to long run outlook. Then I will come back to the short run, which is, of course, everyone's focus and the focus of the markets in their daily gyrations.

Medium to Long Run

The medium to long run outlook for the United States is unambiguously very strong. That is true for one simple reason, which now seems to be quite clear and widely shared among virtually every US and non-US economist who studies the subject seriously. That is the fact—and I will call it a fact—that annual productivity growth in the US is now running somewhere between 2½% and 3% per year. That is a critical fact.

When you add that productivity growth to the annual expansion of our labor force, which is a little more than 1% per year, you must conclude that the medium to long run growth path for the US is something like 3½% to 4% per year. That is very high annual growth for a high income, mature, advanced industrial economy like the US. Indeed, in many respects it is a surprise.

As recently as five or six years ago, the conventional wisdom was that the US could

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only grow about 2% per year. That view was not irrational. From the early 1970s to the early 1990s, our annual productivity growth was miserable. It was only about 1% per year. So our output growth—our economic expansion—was in fact only about 2% per year.

If you think back to ten years ago, there were great doubts about the competitiveness of the US economy, its strengths and its resilience. Japan was booming ahead and was going to own the world by now. There was a very different underlying position for all the major countries, and certainly for the US.

Since the mid-1990s there has been a doubling or tripling (depending on how you define it) of US productivity growth. Total factor productivity has about tripled. Labor productivity has gone up two to two and a half times at a minimum. So instead of having an underpinning of 1% productivity growth and 2% economic growth, we have jumped to a productivity growth of 2½% to 3% and an economic growth of 3½% to 4%.

Every US economist who is a close student of these issues agrees with what I just said. There are some little differences about numbers, but the conclusion that I just stated is unanimously agreed among the close and serious students of the issue, both in the US and around the world.

Technology Revolution's Effects on Productivity

There is not a full understanding of why the productivity growth has jumped up as it has done. We know there are at least three major factors. One is the technology revolution itself: the IT revolution of the late 1990s with the great boom in telecoms. That led to the bubble from which the stock market is still recovering. The technology boom was an important part of the increase in productivity growth.

However, it is critical to note that the technology production boom itself was not by any means the major factor in the pick-up in productivity growth. The high tech sector, for all its glamour and the fact that it was important in our growth in the late 1990s, accounts for less than 10% of the US economy. It is a very small share of our total economy.

Its boom, strong as it was in the 1990s, would not have been enough to propel our whole economy. Conversely, its collapse now is not enough to drag our economy down. This is indicated by the fact that we grew at a rate of 4% for the first three quarters this year, even while our over-invested, excess capacity IT sector continues to stagnate. That has not kept us from running 4% growth for the first three quarters of this year.

Improved Utilization's Effects on Productivity

The second cause of the big improvement in productivity growth has been the improved utilization of the new technologies by the old economy. It has been the 90% of our total economy that is old economy—housing, automobiles, financial services, retail trade, wholesale trade, mundane everyday sectors of the old economy—that suddenly learned to use new technologies to dramatically increase their productivity.

Sectors like financial services and wholesale trade had been recording zero productivity growth for as long as we could measure them. Suddenly, they were

growing at 5% per year in their output per unit of input. They suddenly took advantage of the new technologies. They began to dramatically expand their own productivity.

That is why, being on the optimistic end of the spectrum, I believe we will continue with this high level of productivity growth. We may even accelerate and do better than I am guessing in the medium to long term.

A fascinating example was the West Coast dock problem. The cause of the West Coast dock problem was the workers who had suddenly realized that the management had figured out how to use computer technology to dramatically improve the efficiency of the docks, therefore needing fewer workers, and therefore leading to some threat to the job position of the stevedores.

That is only the latest sector to suddenly figure out how to use technology to boost productivity. As always, it causes dislocation. The workers are frequently resistant. It shows again how the application of new technologies can make a dramatic improvement to the efficiency and output of our economy. That continues to propel our economy forward. It will do so for the indefinite future.

Globalization's Effects on Productivity

The third factor in the productivity boom, which somewhat overlaps but reinforces the things I have been talking about, is globalization. Korea is, of course, the example *par excellence* of the favorable impact of globalization. Your economy went through the dramatic and well known transition from being a very poor country as recently as forty years ago to being one of the leading economies in the world.

What you may not realize is that the US has gone through something of that transition during the same time period. From about 1960 to the present, the share of the US economy that is integrated in the world economy has tripled.

When I started in this business, the external sector of the US economy was a residual. It was a very minor factor. It was not viewed as an important element in our economy. Today, if you add up the export and import of goods and services, it exceeds 30% of our total economy. That number is twice as big as Japan's. It is bigger than that for a united Europe. This means that the US is one of the most internationally interdependent economies in the world.

What has been critically important for our productivity growth is that the rapid increase in our globalization has forced US industry to continually improve our performance. Even with our own economy booming for the 1980s and 1990s, our firms were increasingly competing with European firms, Japanese firms, Korean firms, and firms in developing countries, increasingly from China. US firms knew that they must continually improve their performance, even when their home market was doing strongly.

This is a dramatic difference from the last time we had a prolonged domestic boom in the 1960s. Then, our firms got fat, lazy and overconfident. They lost their world market position. This led to two decades of inferior US economic performance, of the type I described before. This time, it was totally different.

It causes adjustment anxieties. It causes dislocations in our workforce and elsewhere. But it has meant a steady, dramatic improvement in our productivity

growth. It is very hard to quantify that. We are working on it at my institute. But we believe that as much as half the total jump in productivity growth was due to globalization, interacting with the technology revolution and the application of the new technologies in old economy sectors.

That is the basic story of why we believe the productivity explosion has occurred. If it has, as I strongly believe it has, then the supply side of the US economy, which is generated by this productive potential in growth, is assured on a rapidly basis for as long as this lasts, the medium to longer run.

Alan Greenspan was one of the first people to call attention to this phenomenon. He began to see that development in the mid-1990s. He based monetary policy on it. The reason that Greenspan was willing to let unemployment drop below 6%, to 5½%, to 5%, to 4½%, to 4% without tightening monetary policy was because he believed—correctly as it turned out—that the US economy had much greater potential than in the past.

As recently as six or eight years ago, very few US economists thought we could see unemployment drop below 6% without inflation picking up, interest rates rising, and the party being ended. Greenspan saw it differently. Unemployment dropped to 4%. It remained there for over two years. To this day no inflation is in sight in the US economy, despite having run the economy at a much more rapid level than we every thought possible.

The result was that the old floor for unemployment, 6%, which we did not think you could go below without inflation, may have become the new ceiling, even in a recession. In the slowdown of 2001, unemployment never climbed above 6%. The old floor may have become the new ceiling. We are in an unemployment range of, say, 4%, as opposed to the old range of 6%, 8% or even 9%. That is a huge improvement in the performance of the US economy. It is another way to explain and manifest this pick up in productivity growth.

That summarizes the picture for the medium to long run on the supply side of the economy. I stress it because it is the most important question. If you are thinking about what country to invest in, what currency to invest in, and what country you want to hook your own national fortunes to, you obviously want to be thinking on a medium or long run basis. On that calculation, the US outlook is very strong.

Short Run

But as Keynes said, in the long run we are all dead. So we also have to worry about the short run. In the short run, despite what I said, are we going to have a double dip recession? Or a turn down? Or a crash? Or some other horrible outcome? I do not think so.

My short run forecast is continued US growth in the fourth quarter and certainly through all of next year, probably in the 3% or 3½% range. There has been a bit of a mark down in the growth rate we can expect in the short run because of the decline in the stock market, the negative wealth effect, and possibly the short run impact of a war with Iraq, though the main effect of that would be positive.

There are some short run uncertainties that could pull the growth rate below the 3½% to 4% medium to long run potential growth path that I mentioned. But I

would still feel very comfortable with a forecast of 3% or 3½%, running through the course of 2003. I would definitively assure you there is no chance of a double dip recession. There is no possibility that the US will fall into a double dip recession, barring some totally unforeseen event that could not be imagined.

There are three or four factors that are holding up the demand side of the economy in the short run. This is despite the continued over-invested position of the high tech sectors, and despite the fact that private investment is lagging and still a weak part of the picture, though it's starting to come back a bit in a few sectors.

Consumer Demand in the Short Run

The main short run driver will continue to be consumer demand. Consumption growth accounts for about two thirds of our total economic growth. It has continued to expand steadily all through the course of this year. It looks as if it will continue to expand, albeit perhaps at a little smaller pace, over the next year or year and a half.

Consumer demand is driven by one variable: consumer income. As consumer income continues to grow, and as jobs are created that add to consumer income, consumer demand will continue to grow. That is unless there were some sharp discontinuities in the savings rate. But even though that would be a good thing from the long term standpoint, there is no sign of it happening. So consumer income—household income—will continue to grow. That portends continued growth of consumer demand.

Interest Rates in the Short Run

That is powerfully reinforced in the short run by our very low interest rate structure. US interest rates are at their lowest level for forty years. In fact, some of the key interest rates—like home mortgage rates—are continuing to decline, moving to all time record lows. They are the lowest ever since we began recording statistics.

That means that a whole range of interest-sensitive sectors are having their greatest boom in modern history. These sectors are being enormously stimulated. Housing and automobiles are both having record performances. So are many other consumer durables. Anything that is interest sensitive in the US economy is booming.

The cost of credit is very low. It will continue to be low. The Federal Reserve is not about to raise interest rates. Market pressures are not pushing rates up. There is no inflation in sight. Monetary policy will continue to be a stimulative force in the economy.

Government Spending in the Short Run

The third variable is government spending. Fortunately we had a dramatic improvement in our government's fiscal position during the 1990s. In 1992, our budget deficit was about 6% of GDP. By 2001, only a little more than a year ago, that budget deficit of 6% of GDP had converted into a budget surplus of 2% of GDP. That is a movement of eight percentage points in less than a decade. That is a dramatic improvement in our fiscal position.

That gave our government a great deal of scope to deploy fiscal policy to cope with a slowdown when it was needed. I do not think our government did that quite the

right way. I was not a fan of the Bush tax cuts. I am still not a fan of the Bush tax cuts. But the combination of those cuts, the automatic stabilizers, and increased spending, mainly due to homeland security, the military buildup and everything that has happened since September last year, those things led to a renewed increase in the budget deficit of 3% of GDP over the last year. That provides another substantial stimulus to the economy.

We will not get a big swing in the new fiscal year that started ten days ago. There will be continued growth in government spending, at least another percent or percent and a half of GDP on a net basis. That, too, will be a stimulative element pushing economy in an upward direction.

There is enough stimulus—growth of private sector demand from growth of household incomes—to offset the negative impact of the decline in the market's value in terms of household wealth. This will keep the economy going at a reasonably strong pace over the next year, at least to the end of 2003. My short run forecast is quite positive.

Uncertainties

There are at least three big uncertainties in the situation that obviously have to be addressed.

Stock Market Decline

First is the decline in the stock market. The prolonged decline, which has now taken place over about two and a half years, is viewed by many people as a harbinger of bad things to come in the economy.

Fortunately, that view can be easily refuted. We know from a simple study of history that the stock market is not a good predictor of the real economy. Indeed, how could we have had growth of 4% for the first three quarters of this year if the stock market was a good predictor? It plunged in 2000. It plunged in 2001. But the economy has risen sharply in the first three quarters of this year. This is just the latest indication that the stock market is a bad predictor. In fact, it is about fifty-fifty. To relate the stock market to the future of economy is like flipping a coin. That is not to be taken seriously.

There is, however, the serious question of whether a markdown in earning forecasts, and the confidence effects from the decline in the market itself, could be a sufficiently negative force to drag down the economy. It is fair to say, therefore, that we are probably experiencing the largest disconnect between the stock market and the real economy seen in modern times.

This disconnect is very easy to explain. It is simply the fact that the stock market bubble of the late 1990s took the market to such over-valued levels that a prolonged period was required to adjust the market valuations back to its traditional relationship with reality: earnings, economic growth and corporate performance. When you calculate traditional relationships, you find that the initial decline of the stock market in 2000 and 2001 represented only a partial move back toward a traditional relationship. You find that another leg of the decline was needed in order to reestablish traditional norms. That, I think, is what has occurred, particularly over the last six months or so.

As I read the numbers on price earning ratios, home equity wealth, and household earnings, I see that the ratios are almost back to their traditional levels. I suspect the stock market has now roughly bottomed out. I would not be shocked by another 10% decline. I am certainly not predicting a rapid rebound. But the market has now, more or less, retraced the excessive valuations of the late 1990s. The correction, which took an extended period of time, has now more or less run its course.

That explains rather easily why the market has continued to decline even while the economy has been rising sharply. It will continue to do so. Going forward, the relationship will tend to be more in tandem. The disconnect based on the excessive bubble of the late 1990s explains why we see such continued turbulence in that market.

Corporate Governance Scandals

The second uncertainty is related to the stock market. We have had a series of corporate governance scandals over the last year, highlighted by Arthur Andersen, Enron and World Com. Those of us who work on international affairs smiled wryly as this happened. We were resistant to the claim that it was crony capitalism, insider trading and inadequate supervision by boards of directors that was responsible for the Asian crisis five years ago. We knew it was not only in Asia that those things happen.

Now it has come home to roost. It has obviously made our economic situation worse. No one can be certain that all the scandals are behind us. Certainly, their legacy will linger for a while.

The most important outcome has been society's response. This is by contrast with Japan. After ten years Japan continues, more or less, to deny that they have a banking crisis. Our society has responded very quickly. We have new legislation to govern accounting requirements. We have new stock exchange rules to govern the role of boards of directors. We have new SEC rules concerning insider trading and the whole range of corporate performance that must be transparently recorded and made public.

As a member of the audit committee for two boards of directors at major companies, I can tell you that boards of directors and auditors are paying incredibly more attention to the affairs of their companies than they ever have before. This does not guarantee that we will not have any problems. But it does indicate again the resilience of the US economy and society, and the zeal—some would say even excessive zeal—to respond to a problem of this type, to try to make sure it does not happen again.

War & Oil Prices

The third and probably most important uncertainty going forward is, of course, war with Iraq. What will that mean? How will it impact the economy?

I would make a sharp distinction between two periods. One is the current period of uncertainty about what is going to happen, when it will happen and what its effects will be. Second, would be the period after the war takes place, assuming it does.

The first period will obviously continue to have a lot of uncertainty and anxiety. It may be that markets remain turbulent, unsettled and even tend toward the weak side until the situation can be clarified. That implies, if we are going to have a war, we should have it sooner rather than later; we should get it done and over with. The impact of the war will be unambiguously positive for the US and world economy. It could even trigger a renewed boom and positive performance on all accounts.

Think back to what happened during the first Gulf War of 1990 and 1991. Iraq's invasion of Kuwait in the summer of 1990 was totally unexpected and shocked everybody. Even our own CIA failed to see it coming. Oil prices shot up. A huge uncertainty had been injected into the world oil market. That uncertainty is the closest parallel to our present period. We expect a problem but don't know when, how or where it will happen.

When the US converted Operation Defensive Shield—the defensive posturing in Saudi Arabia—to Operation Desert Storm, they attacked Iraq to liberate Kuwait. Two things happened. The military attack was immediately and obviously successful. But critically, the US announced its willingness to release as much oil from its strategic stockpile as necessary to stabilize the world's energy market. The core result of those two events simultaneously was to drive the oil price down from US\$ 40 to US\$ 25 per barrel. The economic boom in the US of the 1990s started at that point.

This time, a similar pair of events can be expected. Once they are launched, we can expect the military strikes to be successful and quick. It is absolutely clear that the US government will announce the release of its strategic oil reserves in whatever amount is necessary to avoid adverse effects on the oil market, which is of course the main way in which such military activity affects the world's economy.

The US now has 600 million barrels of oil in its strategic reserve. OECD member countries, including Korea, have 1.2 billion barrels in their strategic reserve. These are amounts that could cover even a total interruption in oil supply from the entire Persian Gulf for several months. That worse case scenario is almost inconceivable. Any disruption in direct flow is likely to be very small, maybe 1 million barrels per day for Iraq itself. Not much more. There is assurance against even a very large disruption. Combined with my assumption—a big and important one—concerning the successful operation of the military activity, the oil price will certainly come down very sharply and very quickly.

The long run implication for oil prices of a successful operation in Iraq is very positive. It would bring Iraq's 3 to 5 million barrels per day back onto the market. It would remove the cloud of uncertainty that hangs over production elsewhere in the Persian Gulf. In both the short and longer run, the outlook is quite positive.

When we pool together what has already happened this year, the medium to long term supply side forecast, and the short run factors including the uncertainties that are very present, you can see I come to a quite an unambiguously positive outlook.

US Dollar Exchange Rate

The US dollar exchange rate is substantially over valued in terms of the underlying US economic fundamentals. Despite productivity growth, which incidentally contrasts with productivity growth dropping by 50% in both Europe and Japan over

the 1990s, and despite better US performance in both absolute and relative terms, the fact is that the US is running a huge imbalance or discontinuity. In the second quarter, partly because US growth was beginning to move ahead, our trade deficit hit an annual rate of US\$ 520 billion. That is well over 5% of GDP. That is clearly a level that is unsustainable.

Two weeks ago my institute hosted a big conference on the dollar. We had about 200 top economists from all over the world, of all different views. There was total agreement. The exchange rate of the dollar needs to come down.

There was some disagreement, however, on how much. The traditional view would say probably about 20% or 25% on average. An alternative view thinks an adjustment of only 10% is needed because of higher productivity growth. This proves underlying US competitiveness. Such a large correction in the exchange rate might not be required. But in total there was wide spread agreement that the dollar needs to come down by 10% to 20% on average.

The third conclusion was a very interesting one. The distribution of the dollar decline against other currencies might need to be a little different than historically was the case. Traditionally, such as after the Plaza Agreement, the dollar decline took place almost wholly against the currencies of the other industrial countries, mainly Europe and Japan. But Europe and Japan only account for about 30% of US trade.

A new view is emerging. There needs to some appreciation of the euro. Maybe some appreciation of the yen too, though there is some dispute about that because of the very weak state of the Japanese economy. Those two changes would only be counterparts of a portion of the dollar's adjustment.

The new view is that a large part of the counterpart would have to be in other currencies. The Canadian dollar is one of them. Canada is the number one trading partner of the US. Its currency has been very weak for the last four or five years. The Mexican peso is another one. It has become the second largest US trading partner, surpassing Japan in recent years. The Chinese renminbi is a third. China, with its fixed rate system, continues to pile up huge amounts of reserves rather than letting its currency appreciate. It is coming under increasing criticism from the US Congress, business community, and elsewhere.

To some extent, other Asian currencies are also considerations, including Korea's won. These countries have strong economic performance, strong external positions and large international reserves. Therefore, they must be expected to take some part of the economic adjustment that would be counterpart to the decline in the dollar.

I mention the fact that Korea might have to participate. I cannot fail to remember and share with you the first time I ever met Il SaKong. It was when I came to Korea in 1986, less than one year after the Plaza Agreement had been reached to try to drive down the exchange rate of the dollar. A massive US trade imbalance at that time was threatening to bring on huge protectionism in our congress, as well as disrupt financial markets.

When I was preparing for that trip to Korea, I recognized that for the first time in the post war period, Korea, along with Taiwan and other East Asian tigers, was really for the first time running large external surpluses. One of my messages on

that trip was that Korea was going to have to start thinking of itself in a different way. Not as a poor, beleaguered, capital-importing country. But increasingly as a major player in the world economy that would have to take some of the responsibility for international adjustment if it were running large surpluses and piling up reserves.

On that trip I was the guest of a Korean think tank. It was not KIEP and not KDI. It was one of the other think tanks. During my first day of talks, I carried this message forward. In 1986 it was a shock to a Korean audience.

I was awaked at 6:00 am the next morning by a call from the president of the think tank that invited me. He had received about one hundred phone calls the night before asking who was this wild man he had invited. The callers asked him if he could, please, shut me up or else I was going to ruin the country.

My host, needless to say, was rather nervous. Some of those calls had come from high places. Some of them were his own sponsors, who were most unhappy about the message I was bringing. He was nervous.

My first meeting that day was with the senior secretary to the president at the Blue House, who happened to be Il SaKong. My host, who escorted me to that meeting, was very nervous. I was meeting with the highest economic official in the land, and my host was afraid that he, too, was going to ask for my exile.

But the opposite occurred. Il SaKong said, "Dr Bergsten I am delighted to meet you. I believe you are bringing a message Koreans need to hear. We are moving into a new era. We are in a different position than we have been over the past 25 years. Will you go on primetime television with me tonight for an hour and explain this to the Korean public?"

Well, we did. My host was thoroughly relieved. From that point forward, Korea began to play a major role as one of the leading economies in the world. It subsequently joined the OECD and participated in all sorts of major international economic coordination exercises at the highest levels.

The same thing may be starting to occur today. The inevitable US adjustment will probably need to have, at least to some extent, a Korean counterpart as this big imbalance is corrected.

I do not have any good sense as to when that correction will take place. During the first six months of this year, the US dollar's exchange rate came down by a trade weighted average of about 10%, and a little bit more against the euro and the yen. It did so in a very gradual and very orderly manner. There was no adverse effect on interest rates or inflation in the US. There were no adverse effects that one could see on the world economy.

If one believes that a currency adjustment is inevitable, it should be completed as soon as possible. The US government is not going to take any initiative to push the dollar down. There is some pressure from industry, labor and agriculture to do so. I do not think that will happen. But within the next year or so, all of you should assume that there will be another modest decline in the exchange rate of the dollar. Korea will probably need to be part of the counterpart to that.

Japan

I will not belabor the situation. I was just there for three days. I had a long meeting with my close friend Heizo Takenaka. He is now the man who, on behalf of the prime minister, is trying to save the economy. I put it that strongly. Japan, after its lost decade, is really at a turning point.

The prime minister has realized that the time has come to either fundamentally come to grips with the problems in the economy, particularly the banking sector, or else continue to slide and perhaps even have a full blown banking and currency crisis.

Takenaka, as you probably know, has a five point plan. First, is a radical restructuring of the banking system. This includes large write offs of non-performing loans and injections of government capital into the system. In short, an essential restructuring of the banking system.

Second, there will be a very big fiscal stimulus, big tax cuts and no increase in government spending. These tax cuts will try to provide a positive thrust to the economy to offset the inevitable adverse short term implications of banking sector corrections.

Third, a sharp further easing of monetary policy. The goal here is to double the rate of expansion of the money supply. This will provide a boost to the economy while the bank correction is going on.

Fourth, the creation of government safety nets to help handle the transitional adjustment of the banking correction. This will cushion the social effects and make the whole package politically acceptable.

I think this is exactly the right strategy for Japan. I hope they succeed in putting it into place.

It is already running into a great deal of resistance in Japanese society. In a way, that is understandable. I characterize the Japanese situation as high level stagnation. They have had a decade of stagnation. But it is at a high level. It is a wealthy economy. The people are well off. You do not see poverty in Tokyo or elsewhere in the country. There is some increase in homelessness and unemployment. But it is certainly nothing approaching a national crisis. It is unclear whether there will be adequate political stimulus to back the prime minister and Takenaka in carrying out the program.

I am afraid that if the program fails this time, it will largely see the rest of the world simply throw up its hands and write-off Japan. If this effort, well conceived and fully supported by the elected prime minister, cannot overcome the deep sources of resistance in Japanese society, it is hard to know when or if a correction will ever actually occur. In such a case, the "bypass Japan" strategy seen at American firms, and companies and governments from around the world, will almost certainly accelerate.

I made a speech here last night where I predicted that sometime in the 21st century, Korea will pass Japan. Not only in terms of per capita income, which could come within the next decade or so if Japan continues to stagnate, but in terms of total GDP. Once Korea unifies, the North moves up economically, the yen depreciates to

200 per dollar, and Japan stagnates, it is only a matter of arithmetic until Korea becomes a larger economy than Japan.

The demographic projections predict the Japanese population to be cut in half over the next century. When Japan's population is cut in half, from 110 million to 60 million, Korea will already have 70 million people with unification. As incomes in the North at least begin to approach those in the South, as the country continues to grow rapidly as is assured after unification, and if Japan continues to stagnate, it is literally a matter of simple arithmetic that Korea, at some point in the next century, will become a larger economy than Japan.

On that note of real optimism for this country, and having already counseled you to continue your close ties to the US, I will conclude.

Questions & Answers

Q I have a question about your productivity growth projections. You mentioned that not only is it real, but that it will accelerate. Why do you think productivity growth will accelerate?

A I base my statement on two things. We know that a lot of US industries have been learning to utilize new technologies, the Internet and computers. This dramatically improves performance. We also know that a lot of sectors have not yet done so.

There remain many sectors that can still undergo a sharp improvement in performance. We have seen this in a half dozen or so successful sectors. Some sectors may be in the early stages, not yet fully adapted. There could be much wider spread of new technologies across the economy.

Secondly, I make loose reference to history. The computer revolution is probably a modern equivalent to the great technology revolutions of the past, like the invention of the steam engine and the automobile. These great technology advances propelled economic expansion. Historians have unearthed two very important lessons about past technology revolutions.

First, it takes a surprisingly long time for a technology breakthrough to get translated into a commercial breakthrough. It takes time for business to learn how to apply those technologies. The famous US economist Robert Solo was noted for saying for ten years that we see computers everywhere except in the economic statistics. They did not show up. Productivity growth continued to be low and lousy, despite the computer revolution going on around us. In the middle 1990s, for reasons nobody knows, all of that started to change. Computers began to spread, and seem to be now deeply rooted. Technology revolutions take a while.

Secondly, once it starts taking root in the economy, it propels the economy for a long period of time; for decades, not years. There is a whole school of economic analysis that looks at long term technological change. Those economists think in terms of long cycles of growth and stagnation, centered around great technological breakthroughs. Based on that theory, once you get going with a new technology, it provides an ongoing impetus for extended periods of time. That is quite possible now.

I am by no means limiting myself to the US. The computer revolution has manifested itself in economic terms first and foremost in the US. But it still has yet to take root in other parts of the world. In Europe, the rate of productivity growth was only half as great in the 1990s as it was for the previous two decades. That is the opposite of the US. Europe has not yet really begun to apply the technology revolution. Neither has Japan. Neither has Korea.

The US is less than 20% of world output, so there is a huge world remaining out there. The rest of the world should be adopting this technology. When combined with competitive pressures from globalization, it should propel a broadening and deepening of the economic impact over the coming decades.

In sum, there are more industries in the US adopting these technologies, the historical promise of a prolonged pay off exists, and its geographic spread can be widened. Taken together, this means that the technology revolution is only in its early days. If that turns out to be correct, then we have optimistic prospects for the first half of this century. I do not want to make a point estimate, but I think it is a very reasonable possibility.

Q You mentioned at the end of your lecture that the economic prospects for a unified Korean peninsula are brighter than any Japanese prospects. This implies that you know something about what is going on in North Korea. Recently, James Kelly visited North Korea. Also, North Koreans revealed something of a new economic policy. If you know anything about North Korean policy, perhaps you could share it with us? What is your stance on this?

A I have not talked to Jim Kelley since he was there. I have been on the road myself. I do not have any insights on that.

My colleague Marcus Noland is an expert on this. He has done some very good analysis of the North Korean economic reforms. He believes that they are incoherent and likely to produce huge inflation. They are the signs of a dying regime's last flailings. They do not constitute economic reforms that could rescue and perpetuate the regime.

Unification of the peninsula is inevitable. Even though the South Korean birth rate is low, unification immediately gives you a population of 70 million. During that time, the Japanese population is heading toward 60 million. Also, take into account the higher North Korean birth rate. So the Korean population will be bigger than Japan's sometime during this century, especially with the long run unification of the peninsula in mind.

As you know, unification will be extremely costly in the short run. Noland wrote a prize winning book on this over two years ago. He estimated it will cost US\$ 600 billion over ten years. This sounds expensive.

But in the long run, unification will be very positive for a combined economy. Unification will put together a highly productive South Korean capital intensive economic society with a low productivity, labor intensive North Korean population. The combination of the two could give a very sharp boost, over a period of decades, to economic growth in the peninsula as a whole.

It would also cause an increase in income and wealth inequalities. It would increase the returns to South Korean capital and cut the relative return to South Korean

labor, as North Korean labor comes into the picture. There are some distribution questions that will arise in the process. But the macro effects seem to be quite positive.

As to the question of timing, I cannot resist telling another story. My friends here in Seoul are always saying that they want unification, but they want it gradually. They want to phase it in over a long period of time and minimize the cost. When I hear that, I always share this story.

Helmut Schmidt is a very good friend of mine. While he was chancellor of West Germany and a leading politician in his country, he was always one of the most optimistic Germans about the eventual unification of Germany.

I was having dinner with him at his house in Hamburg one night in October, 1989. This was one month before the wall went down. I said to the former chancellor, "Chancellor, I know you have always been optimistic about German unification. Are you still optimistic?" He said, "Oh yes. It will certainly occur sometime in the 21st century. It will start in Berlin sometime between 2010 and 2020." One month later, the wall went down and Germany was unified.

I always tell my friends in Korea that you cannot control it. You may wake up one day and unification will be on your doorstep. You will not be able to turn it down any more than the West Germans could.

German unification has been very costly. They mis-played it. I know you have studied that process. You know what mistakes not to make. I know you are all reading Noland's book so you know the blueprint.

Q The Brazilian economy is struggling under the burden of a short term debt that exceeds US\$ 3 billion. What would be the worst possible scenario and implications for the rest of the world?

A Our analysis at the institute suggests that some restructuring of debt is probably required. Whether or not Lula becomes president, the debt dynamics are very questionable. Unless they can generate a surge in capital inflow, their interest rates will be too high, their currency too weak, and their growth too low to service the debt. So some debt restructuring is probably required.

The complication is that if Lula is elected, which seems almost certain, a debt restructuring would be viewed as evidence that he was leftist and repudiating localization. But he would not intend restructuring to carry that message. It is going to be a complicated situation.

Brazil will not have a dramatic affect on the world economy. Brazil does account for half of South America. Also, it is an important element in emerging market bond indices. But Brazil, like Argentina, is a very closed economy. It is not deeply engaged in international trade or finance. We are not likely to see a big impact on the world or any spillover into East Asia.

Since 1997, almost every country now has a free floating exchange rate. That provides a shield against the kind of contagion that happened in 1997 and 1998. Even in the worst case scenario, Brazil will not do much damage to the rest of the world.

Q You mentioned at one point that the yen might have to appreciate against the dollar along with other currencies. Then at the very end you suggested the possibility that the yen may depreciate against the dollar to the level of 200. How do you reconcile these two developments?

A You are right. I was contradictory. The difference is time horizons. This dollar correction will have to occur sometime in the near future, in a year or so. As a counterpart to that, the yen will inevitably appreciate. But it will not appreciate nearly as much as it did in previous corrections, such as after the Plaza Accord and after the breakdown of the Bretton Woods Agreement in the early 1970s.

In the opposite direction, if the yen depreciates to 200 yen per dollar, it would mean that Japan has really failed to come to grips with its internal banking crisis and its structural problems, and has continued to drift indefinitely. It could very well do this. Stagnation could continue indefinitely. The Japanese could continue to muddle through with various temporizing steps almost forever.

Under those conditions, investors both outside and inside Japan would give up on the country. The big Japanese firms have already largely gone off-shore. They will continue to do so. I talked to many business leaders when I was in Tokyo earlier this week. Of course they would like to see Japan get its act together. But that is not necessary. They can continue to expand their activities around the world. They will still be world class competitors from a multi-national production base. That will continue. That could mean very substantial downward pressure on the exchange rate of the yen. So despite some short run appreciation as part of the dollar correction, in the longer term, if they fail to get their act together, you could see a steady and very long run depreciation.

It is similar to Britain and the pound sterling. If you draw a chart of the pound sterling from 1926 when they re-pegged at an over-valued rate until today, you will see the steady manifestation of a century long relative weakening of an economy. Britain has not disappeared. Its people did not go into destitution. It has just steadily declined in terms of both absolute and relative position. As a result, its exchange rate steadily depreciated. That could be the case for Japan, though I certainly hope it does not happen.

Q What are the chances that the US might be drawn into a prolonged war in Iraq that would spread throughout the Arab sphere? What would the consequences of this worst-case-scenario be?

A A worst case scenario would see the US and whoever goes with it bogged down in the streets of Baghdad, popular uprisings around the Middle East, revolutionary takeovers in Saudi Arabia, the UAE and Kuwait, the Persian Gulf in flames, oil production stopped, and the world in terrible shape. I cannot say that is impossible. But the risk of that is so small it can be hardly seen.

I have enough confidence in the US military—here I am distinguishing between the US military and other parts of the US government—that I think if they are given the job, they will carry it out fast and effectively. They got plans. They are positioning right now. They have already begun using the no-fly zone to destroy Iraq's command and control centers, as well as the anti-missile and anti-aircraft batteries. Those are now being destroyed. The road to Baghdad will be open. There is the possibility of fighting in the streets, but that assumes the Iraqi nation will fight to the death for Saddam Hussein. Very few people believe that.

There is a strong possibility of a prolonged US occupation of Iraq as the internal situation sorts itself out. The US cannot go in and just let the warlords take over their sectors again. That would be a problem. The Kurds want independence. The Shia want their own country. There are big ongoing problems. There could be a prolonged occupation.

In Tokyo I made an analogy with general headquarters after World War II. I think that is a real possibility. That would cause problems, but in economic terms it would be part of the optimistic scenario: oil production would come back quickly, political factions in Iraq contesting for power will want to see oil production up and incomes up. The US or anyone else involved from the outside would certainly promote that. That would remove threats to production in other parts of the region. I think a prolonged occupation is a possibility. I think a prolonged war is not.

Q Do you have an opinion on US household debt? As you know, the Korean recovery relied strongly on domestic demand, particularly consumption. This was fueled by a rise in household debt. Household debt here reaches about 80% of the household's value. But we are catching up with the US where it is about 120% of the household's value. Is this a risk to economic growth? What happens when private consumption slows?

A It is a risk. It has been cited as a risk in the US for a number of years. So far, it has not proven to be a problem. But that is not to say it could not become one.

When people worry about this, they are analytically making the wrong comparison. The needed comparison is not household debt to income. The proper ratio is household debt to household assets. You have to look at the complete balance sheet of the household. This includes both sides of the balance sheet, assets and liabilities. This paints an accurate picture of risk. Then, we can see how it has changed over time.

In the US it has deteriorated only a little in the recent past, not as much as you might think. Even with the decline in the stock market, the asset side of US households has continued to be very strong.

In the US, the biggest element of the household asset position is, of course, not equities but the home itself. This changed a little with the bubble. But now, with the decline in the stock market, that traditional relationship has been restored. Homeowner equity is something like US\$ 13 trillion. Individual stock market equity is now about US\$ 12 trillion, down from a high of US\$ 18 trillion, but still up from about US\$ 10 trillion ten years ago.

When you look at the overall balance sheets of US households, they are actually not too different from what they were, say, ten years ago. Of course they went up to a much higher level at the top of the stock market boom, and have dropped significantly since that time. But the absolute numbers still look pretty good. They are not too different from where they were ten years ago.

If that profile is maintained, the risks are not great. I will not say zero. But they are smaller. As you know, one aspect of a low interest rate stimulus to the economy is the more rapid build up of debt. On the other hand, the low interest rates point to a saving grace. You can look at debt ratios. But what counts in the short run is debt

serving. When interest rates have been as low as they have been recently, the debt service burden actually declines.

One of the elements fuelling the economy is a massive mortgage re-financing. There has been over US\$ 1 trillion of mortgage re-financing this year. People are taking out new debt at lower interest rates. Thereby, they reduce their debt service costs. Their total debt may go up, but the debt servicing is lower because of lower interest rates.

Before we panic, we have to look at the household balance sheet on both sides, assets and liabilities. Then for cash flow purposes, we look at the debt servicing to see how sustainable that looks vis-à-vis current income. In other words, we compare flow to flow and stock to stock. That will lead to a more positive answer. Not an answer with zero risk, but one with less risk than at first seems the case.

Q Concerning US productivity growth, why are European and Japanese companies not following suit? You mentioned that new computer technologies are not as widespread there as in the US. But beyond that, are there some systematic differences? To what extent does the economic system play a role in maximizing the effects of new technologies?

A We have a big project going at my institute to figure that out. We are asking why Europe, in particular, has not been quicker in picking up these new technologies.

The US economy is pretty flexible and pretty resilient; look at its corporate governance. Labor markets are particularly flexible. But also capital markets and venture capital.

The US economy is more adaptable and more flexible in turning to new techniques. It is therefore logical that the US is where it took place first. But, there is no reason why others cannot come along and copy that. Maybe not fully, or maybe not as quickly, but once they see it they can do it.

In the late 1980s and early 1990s there was a widespread view that the US was finished and that the US economy was down and out. People believed that Japan was going to dominate. There were scholarly as well as popular analyses along those lines.

About a year ago, Michael Porter of the Harvard Business school looked back. What had happened, he asked, to make that not happen? Why was everybody so wrong? There turned out to be many answers. But part of the answer was that many people thought that the superior Japanese management techniques of the period were somehow uniquely "Japanese" and could not be copied elsewhere.

This included just in time inventory, total quality systems, and other management systems that the Japanese firms developed in the 1970s and 1980s. These did give Japan a tremendous productivity boost. But it was mistaken to believe that these were somehow only available in Japan.

In retrospect we know that every serious US company sent squads of people to Japan to learn what the Japanese were doing. They came back and applied their learnings at US companies. It took a while to learn, but they applied it.

An important factor in the sharp jump in total factor productivity in the US was that US firms started simply to copy Japanese management techniques. Michael Porter concluded there was nothing particularly "Japanese" about these techniques at all.

There was management innovation. There was brilliance on the part of Toyota, Akio Morita and his Sony, and the engineering teams that generated dramatic productivity growth in key Japanese companies. But it was just a coincidence that it was in Japan. It could have been anywhere.

When US firms figured out what was happening, they applied it back at home. That was an important factor. Now, US firms follow all those same techniques that were so revered as being uniquely "Japanese" in the 1980s.

A lot of things which are thought to be unique to countries or cultures, are not. They can, in fact, be more broadly disseminated across a globalized economy. This can be done by some of the same firms that operate internationally. But also by anybody who takes the time and effort to learn what works elsewhere and apply it at home.

When we look at what happened in the US over the past decade, we see that the flexible environment, willingness to hire and fire workers more frequently, and the very energetic venture capital system may have given the US some advantages. These could explain why we did a lot of this first, and why we may do it more than anyone else in total. But certainly there is no reason why lots of these same innovations cannot be applied in Europe, Japan or the rest of the world.

It is a matter of diffusion. This takes time. This takes a lot of effort. But it always occurs. That is why Europe should, over the next five years or so, pick up its performance impressively. Whether it can have as dramatic improvement as the US had, I do not know. But productivity growth will increase across the European economy.