Global Financial Crisis, the Dollar and the Price of Oil

Martin Feldstein

Thank you very much. I am very pleased to be back here. I have always admired Korea's long term economic growth and the success that Korea has had and in raising the standard of living. And I know that that success was not accidental, it was based on hard work, high levels of education, high levels of savings and investments and on close cooperation between government and the business community.

I thought it was tragic that growth was interrupted by the financial crisis 10 years ago. And some of you remember I wrote extensively at the time that the International Monetary Fund's program made the situation worse than it had to be by treating Korea like other countries in the region like Indonesia and Thailand when there were such fundamental differences. By inappropriately tight monetary policy and by interfering in other ways in what had been such a successful relationship between government and business.

I am sorry to see that the Korean economy is once again experiencing a substantial financial problem. I know I don't understand it fully and I am keen to learn about it more while I am in Seoul. However I think it can be resolved without the intervention of the International Monetary Fund.

But let me tell you about my initial impression of Korea. I think the economic situation now is very different from the problems of ten years ago. You now have enormous foreign exchange reserves, which you did not have before and you are experiencing a positive balance of payments. So what we are looking at is a traditional business cycle downturn because Korea is a major industrial country, because Korea is linked through trade with the other industrial trading partners of the world and China. It is inevitable that when there is an economic downturn elsewhere it will affect the situation here in Korea. But I think the government here has adopted a range policies both monetary and fiscal that are appropriate for dealing with the domestic situation and I would emphasize the domestic situation is very different from the situation ten years ago. But that does not mean you can avoid a sharp slowdown or perhaps even an economic downturn until the entire global economy and your exports improve substantially. Certainly the emphasis on domestic policies here in Korea will help to reduce any adverse economic performance. I don’t know enough to comment on the structure of the policies the government has proposed, nor on the magnitude of whether it is up to the task. However combined monetary, fiscal, regulatory policies and achieving a back up line of foreign exchange swaps from the United States will all help to contribute towards confidence in the economy and to the economic performance.

I will focus on two issues that are of substantial importance to the Korean economy as well as other economies, that is the dollar exchange rate and the price of oil. Both the dollar and the price of oil have moved dramatically over the last few years and these big swings have important implications for Korea. So I will start with the dollar, then move onto the price of oil and then I will comment on the relationship between the two of them.

If you look at the performance of the US dollar on a global basis, it began falling relative to other currencies in 2002 and was down 20% in real terms by the start of this year. The movement of the dollar and the Korean won over these five years starting in 2002 until a year ago was very similar to the dollar performance more generally. More recently this has reversed more sharply, not just against the Korean won but also against other currencies globally, particularly the European Euro. In the past 12 months the won has fallen by 50% relative to the dollar. So what is going on? Why was the dollar so strong before 2002, why did it start coming down, why was it reversed and what can we expect going forward?

I believe that the recent increase in the value of the dollar on a global basis is an anomaly, is a temporary phenomenon related to the crisis and not to the long-term fundamentals. Investors worldwide are seeking liquidity and are seeking the safety of the US dollar. And American investors who had their funds invested abroad are bringing that back to the United States. So the desire to move funds from the rest of the world to the United States cannot lead to a movement of funds it can only lead to a change in the exchange rate. The dollar must rise until investors globally both US investors and foreign investors believe that the risk of a future dollar fall just balances the liquidity and safety advantages of the dollar. So that is why I think the dollar recently increased so much. Because of this desire of foreigners to be in dollars while at the same time of the inability to literally shift funds to the United States because the net flow of funds to the United States is equal to our current account deficit and therefore to our trade deficit.

I spoke of the dollar being high until 2002 and then coming down. What does one mean by the dollar being high? There is no natural measure that allows us to say that a currency being at one level is high except for its implications on the trade deficit. In 2006 we still had a trade deficit of 750 billion dollars that is about 6% of US GDP. And the current account deficit was about hundred billion dollars more than that.

So a fundamental answer to the question why was the dollar so high was that it had to be high enough to create a current account deficit for the United States equal to the difference between our investment rate and our savings rate. Let me remind you why that is true.

The basic national income accounting identity reminds us that the current account deficit is equal to the difference between investment and savings. That is true for all countries, it is not a historic fact and it is not an economics theory but an accounting identity. The current account deficit is equal to the difference between investment in plant, equipment, construction and savings. Savings means national savings, savings of households, plus the savings of businesses, plus the savings of governments. If the savings are less than the amount of investment in a country then it must import resources from the rest of the world, so the imports are greater than the exports when the savings rate is low. And at full employment, the net imports, the differences between our imports and exports, is a function of the dollar. The dollar was high until 2002 to create a trade deficit equal to the difference between our investment and our low savings rate. So why was the savings rate so low?

The investment in the United States was not high, certainly not high by Korean standards but the savings rate was very, very low and the principal reason for that was household savings. Business savings in the first part of this decade were reasonably strong because businesses were making good profits, dividends had not increased that much and so retained earnings, therefore business savings remained relatively high. The federal government was running a fiscal deficit, a very modest fiscal deficit of about 2% of GDP. So the reason for our very low savings rate as a nation is that household savings had come down dramatically. Just as I have a hard time understanding and believing the very high savings rate here in Korea, I can imagine you have a hard time believing how low our savings rate is and how low it got over previous years.

If you go back to the early 1990s, the savings rate in the US was about 8% of disposable personal income, certainly not up to Korean standards but a comfortable one for the US and one consistent with a very small international trade deficit. But then it gradually began declining throughout the 1990s into the early part of this decade. By the middle of 2003, the savings rate of the households in the US came down to 2.3% of disposable personal income. And then it did a remarkable thing, it became negative, the household savings rate went down as low as –1.5%. So what does it mean for the national household savings rate to be negative?
It means the savings of the savers, people in their middle age saving for their retirement, younger people saving to buy a home or educate their children. The savings of the savers was not very high. While the disaving of the disavers, people who were buying homes or people in retirement, the disaving of the disavers had gotten quite high. So the saving of the savers was less than the disaving of the disavers. As a result the household savings rate came down to not just zero but also to a negative number. No why did that happen, why did the household savings rate come down in the United States?

It is important for us to understand that because it was the fall in the household savings rate that led to a fall in national saving and it was the fall in national saving that created the current account deficit and that in turn which produced the need for and the existence of a very high value of the dollar. There were two primary reasons why the US household savings rate came down so much.

The first of these was wealth and the second of these was credit. During the period from 1990 until a year ago, household wealth in the US increased very substantially for two reasons, because the stock market rose very rapidly and because owner occupied housing values (housing prices) increased very dramatically as well. In the early part of this decade housing prices increased by some 60% in real terms relative to the trend we have had for a long time. So we had a dramatic increase in household wealth and therefore younger people will look at their assets and wealth and say "you know what, I don't have to save so much." The older people could look at their wealth and say "you know what, I can afford to spend more, to travel more, to buy more consumer durables because my wealth as measured by my house and the value of my stock has gone up so much."

The second thing that led to an increase in consumer spending was the greater availability and low cost of credit. Many individuals in the US refinanced their mortgages as interest rates came down and as house values went up and in that process of refinancing they were able to extract funds, so they could go to the bank and say "I would like a new mortgage" and the bank would say "we would be happy to give you a new mortgage with a lower interest rate and your monthly payments will go down and in addition to that we would give you some additional funds that you can spend on what you want." This was very tempting and we saw a big increase in consumer spending.

Also in the area of mortgages a big change occurred making it easier for people to get access to mortgages and mortgages on terms, monthly payment terms, that were much more favorable than what they had in the past. Adjustable rate mortgages, so-called "teaser rate" mortgages and the like. All of this led to an overall increase in borrowing by the housing sector. Disaving of the household sector was large and saving of the household sector was small. And the result we saw was that the savings rate fell from 8-9% from the beginning of the 1990s to a –1.5% until just some quarters before.

So why didn't that decline in savings simply show up as a decline in domestic investment in the United States. After all as we know over the long term, movements of savings and investments tend to balance. Here in Korea, with a very high saving rate you have enjoyed a high rate of investment. And over the decades with a low savings rate, the US has had a low investment rate. And yet in this time, when the savings rate came down we did not experience a similar fall in the rate of investment. Why?

Basically investment in plant and equipment and construction was sustained in the US despite the fall in savings by the large inflow of foreign capital. The Chinese has large surpluses because they kept the exchange rate fixed at an excessively competitive level and that fixed RMB-dollar rate kept prices of Chinese goods in the US very low and led to a large flow of funds eventually. The large increase in the price of oil produced very large surpluses for the oil-producing countries and they in turn invested large amounts in the US. And Japan because of the carry-trade and because they kept their exchange rate very competitive and had large surpluses and those funds came to the United States. So this inflow of funds came to the United States on relatively easy terms and that allowed us to maintain investment in plant, equipment and housing even though the savings rate had gone down. Another way of saying that was that savings were low relative to investment, we had a large current account deficit and the key price needed to induce that large current account deficit is of course the exchange rate which is the reason for the high dollar.

So let me summarize what I have just been saying. The dollar rose until 2002 relative to a wide basket of other currencies because it was necessary to have a strong and non-competitive dollar in order to increase our trade deficit. And those large trade deficits were inevitable consequence of having a very low savings rate at a time when investment was being maintained. But then after 2002 the dollar began to decline, I believe that is the fundamental path of the dollar going forward. That after this current crisis-related desired inflow to the US, we will return to a situation where the dollar continues coming down. Why is that?

Well, as you can tell from what I have been saying so far, it is because the savings rate is going to rise over the next several years. Now why do I think that the savings rate that has gotten so low is going to turn around and go up? As I indicated the two primary forces which were depressing savings, the increase in wealth and the low-cost and greater availability in credit, those two forces have stopped and are going into reverse. So we have seen wealth come down very substantially as a result of this sharp decline in the stock market and the sharp fall in house prices. The stock markets vary from day-to-day but are off from the peak by 35-40% and the price of homes is down about 25% on a national basis. Those two together lead to a reduction in household wealth of about 12 trillion dollars. Let me put that into perspective, the US GDP is about 17 trillion dollars. So this is a very large fall, it is equal to one third of all household wealth. So a dramatic decline in household wealth. And as I said, it was a rise in wealth in the past that caused savers to save less and disavers to feel that they could disave more and that will go into reverse.

The other thing that has changed dramatically in the last year has been the availability of low-cost credit. Mortgage credit and other credits have now been very much restricted to households and to businesses. Interest rates are up, even though the Federal Reserve has lowered the Federal funds interest rate down to just 1%. We now see that the interest rate on mortgages, the key rate that determines household costs of funds for home buying, has gone up and is over 6%. And we also see reduced home values limiting the ability of households to borrow against those assets. So the higher saving rate going forward, the reduction in disaving and the increases in saving will permit a reduction in our deficit but only if the dollar comes down. If the dollar doesn't come down and our savings goes up it will simply lead to a larger recession in the United States, a larger downturn in total spending. But I don't believe that will happen. I believe that the dollar will come down and as the dollar comes down that will lead to a substitution of domestically produced goods and services for the funds the would be otherwise spent on imports from the rest of the world.

Now there are skeptics that say "no, that can't happen." That the US is not capable of increasing its exports even if the dollar is weak and the US cannot possibly compete with imports from other countries, especially low-wage countries that produce many of the products we import. Therefore if we see an increase in our savings rate we are going to see a depression in our aggregate demand in the United States. I think that that is wrong. I think that as the dollar comes down it will lead to an improvement of our exports and a shrinking of our imports. And here is why.

Firstly the United States is a major exporter. Our exports last year were larger than one trillion dollars. Our exports were larger than the GDP of Korea. We are a major exporter over a wide range of goods, agricultural goods, industrial goods and hi-tech goods. We are a major exporter. And those goods, many of them, exchange rate are quite price sensitive. So when the dollar comes down, those exports will go up.

Second, what about out imports? Half our imports come from high-wage countries, from Canada, from Japan, from Europe. So there is no doubt that as the dollar comes down relative to the Euro, relative to the Yen, relative to the Canadian dollar. We will see reduction in the volume of import of products from those countries. Those products will become more expensive to American consumers and they will substitute US products for those. But what about low-wage countries? What about our large imports from China, Vietnam and elsewhere?

US factories are not going to start producing the products that are now being made by China, Vietnam and other low –wage countries. And yet, the lower dollar relative to the RMB, relative to the Vietnamese dong and others will cause a substitution away from their products as Americans see the relative prices of those imported products rising they will cut back on those imports and they will substitute different kinds of goods and services in the United States that have become relatively cheaper. So in short, over the next three to five years I see that the dollar will come down and with it will bring a shrinking of our trade deficit.

Let me turn now briefly to the price of oil and then I will say something about the relationship between that and the dollar and what we can expect going forward. Now at any time, the price of oil depends on both the current conditions of supply and demand of oil and the expected condition of future of supply and demand. That is a very important feature of oil and non-perishable commodities. The current price depends not on just current supply and demand but also on expectation of all the market participants about what is going to happen to those supply and demand pressures in the future. The expected future supply and demand affects the current price of oil because oil can be stored and in particular by the producers, by the OPEC countries and other producers who can choose at any time how much they want to produce. So if the oil producers expect higher demand in the future, if they expect that the price in the future is going to be higher. They will respond by reducing production now, saving the oil in the ground so that they can produce it and sell it at a higher price in the future. And that response, that reduction of current production leads to an increase in the current price of oil.

So we see that an increase in demand in the future as expected by current producers will lead to a change in their behavior today which will in turn lead to an increase in the price today. And conversely, if producers expect that the future supply globally is going to increase and therefore that there will be lower prices in the future they are going to produce more now in order to take advantage of today's relatively higher price and that will in turn depress the price of oil today. So an expectation of rising supply or decreasing demand in the future will lead to a reduction in the price of oil today.

There is a more precise description of this process that economists know about, think about. If we abstract from the current shifts in supply and demand, the temporary shifts in supply and demand, the price of oil should be expected to rise over time. And should be expected to rise over time at the same speed as the rate of interest, adjusted for risk and storage costs and the like. So if interest rates over the next five years are expected to be at 5% we should be expected to see that the price of oil should rise at about 5% over that same horizon. Why?

Because producers have the option of producing today taking the proceeds, investing it and getting that 5% rate of return. Or they can keep it in the ground and see it appreciate at 5% a year. So if the expected increase in the price of oil is less than the rate of interest it is better to pump and sell. And conversely if the expected increase is greater than the price of oil it is better to keep the oil in the ground. We actually see that now. The spot-price of oil is $65 today, five years from now if we look at the oil futures we see that oil is about $80 a barrel. That could be wrong. But it tells you what the markets are expecting, they are expecting to see the price of oil increase over these five years at about the same rate as the rate of interest. So this link I have just described between future expectations and current prices has some important implications. It helps us to understand what has been happening and how policy decisions around the world can affect future prices. It certainly helps us to understand how this very sharp increase in the price of oil that occurred over the past year was capable of happening. There was an increase in everybody's expectations of future demand for oil with particular focus on China and the rapid growth of the economy and automobiles. There was a sense that the demand for oil was going to be much higher five and ten years from now. And there was also a concern that the supply of oil would not be rapidly growing in the future. There was concern that Mexican reserves were being depleted, that Russian reserves were being depleted. And so there was a concern that demand was going to rise rapidly and supply would not be able to keep up. That led to a sharp increase in the current price of oil even though there were not many things affecting the spot market.

This link between future expectations and current prices is a reminder that policies that affect supply and demand can have important implications on the price of oil today. And finally I think it will help us understand why the price of oil came down so fast from $140+ per barrel to about $70 per barrel. The high price of oil had a much bigger impact than people expected. There was a dramatic and unprecedented decline in driving, in the demand for oil. There was a dramatic shift in those kinds of cars that individuals wanted to buy. Americans stopped buying large SUV and cars that consume gas to cars that consume less gas like the Prius, the hybrid cars. So oil markets realized that demand was going to be much more sensitive and therefore going forward we would not see such a big increase in demand. And at the same time there was talk about significant increases in oil in the US, talk of offshore oil drilling to increase the availability of oil and also increases in the supply of alternatives as in nuclear power.

Moreover Mexico has responded by a willingness to have foreigner investors help in the production of oil. So all of those things combined to change rapidly the expectations in future movements of demand and supply. But in addition to these long-term equilibrium effects there were also temporary market condition effects that mattered because supply volumes cannot be adjusted instantaneously to changes in expected future prices. We see that now there is an excess price decline in response to economic weakness. The immediate impact of economic weakness globally has been to reduce the demand for energy. And yet the OPEC suppliers were delayed in their response to that. OPEC cannot simply flick a switch and cut production. There was a delay in meeting, they finally met two weeks ago, they agreed at that meeting that they would reduce the production of oil by about a million and half barrels a day but that too will take time to occur. So in the meantime we have this excessive short-run supply relative to the spot demand associated with a globally weak economy. When I look ahead, I think the OPEC suppliers will reduce their supply in order to keep the price of oil at some number around $90 a barrel.

Let me comment finally on the relationship between the price of oil and the dollar and the implications this has going forward. It is interesting to note that between May of this year and May of last year, the price of oil has almost doubled going from $65 a barrel to $120 a barrel before it started coming down again. And over that same period, the dollar declined by 15% relative to the Euro and the Yen. So it is natural to ask, is there a link between these two movements. The answer is yes, but the implications are not quite what some people believe.

I think the best way to ask the question is what is the effect of the weakening dollar that occurred on the price of oil. A weaker dollar raised the cost of oil to buyers in Euros and other currencies that had become stronger relative to the dollar. And that required their demand for oil to be reduced as the price of oil priced in Euros and Yen increased and that reduced global demand for oil and so it reduced the price of oil worldwide. So a weaker dollar translated into a higher price of oil in other currencies that led to a general decline in global price for oil.

A second interesting question about this is how did the increase in the price of oil, when it went from $65 to $120, how did that affect the dollar? Well, the increase in the price of oil led to a sharp increase in the trade deficit. In 2007 oil imports were almost 50% of the US trade deficit, if the price of oil had stayed at $65. Oil imports measured in dollars would have been cut in half. So the higher price of oil raised the US trade deficit and that required a lower dollar to shrink other imports.

Let me conclude what I said in these remarks and briefly looking forward. I began by asking why the dollar had been so high and we had seen how the dollar was high because of the low saving rate, particularly the household saving rate. And then I said why I believe that is going to reverse over the next five to ten years and we will see the savings rate rising and bringing with it a lower dollar. That could be reinforced leading to an even lower dollar if the price of oil increases. The price of oil going forward will heavily be influenced by OPEC policies. But we, the United States, Korea and other consuming countries should work together to limit that increase in the price of oil. We should let OPEC countries understand that they must limit their monopoly power if they want to have friendly cooperative relationships with the US, Korea and with other oil consumers. We can also cooperate internationally to reduce the demand for oil, developing new technologies for automobiles, by shifting the heat and electricity to a reliance on coal and nuclear energy. And countries like US and Canada can work together to increase the supply of oil.

Q&A

Q: Professor Feldstein, thank you for your rigorous and rich outline of the trend of the US dollar. I have a question regarding two factors that may affect the pace rather than the trend of the US dollar. First are the credit card borrowings, that the amount of credit card loans is almost equivalent to the US GDP. If that is the case and if there is a problem servicing this credit card loans will there be aftershocks from this American tsunami which would prolong this repatriation of US dollars and delay the onset of the decline of the US dollar.

The second factor is the political cycle that you did not touch upon. It seems the rise of the US dollar until 2002 and the rise thereafter coincided with the Bush presidency. Soon there will be a new president in Washington, Barack Obama. Do you think his economic policies would reinforce your prediction of the downward trend of the dollar or would it detract from that trend?

A: Thank you, those are both good questions. With respect to the credit cards, I would be surprised if the volume were quite as large as you said. There is no question there are problems in credit card defaults just as there are problems in mortgage defaults in the United States. The issuers of credit cards, the banks, are cutting back on their supply of credit cards, they are tightening standards, they are denying new credit cards, they are putting limits on the amount of credit individuals have. And I think all of that will reinforce what I said about the limits to credit availability that lead to higher savings rates. Individuals will not be able to expand their credit card debt as they have done in the past, they will have to pay down their debt and that will lead to a higher household savings rate and therefore a higher national savings rate. That will reinforce this process of a gradually declining dollar going forward.

Turning to your second question about the consequences of an Obama presidency. If he wins he will have control of both house of the congress so he will be able to implement the policies he wants. But frankly it is very hard for a careful observer like myself to observe what is being said during the campaign to know what those polices are going to be. President-elect Obama began with polices that on the left-right spectrum can only be described as to quite far to the left. Critical of trade, in favor of raising taxes and a variety of such policies. But after he got the nomination, his policies became more centrist, he has moved from a far left position to a left of center position.

Now he is going to see a critical situation in the US economy to which the kind of policies he was talking about could be very counterproductive. To cut back on trade would be a mistake, to raise taxes would be a mistake, to emphasize large spending on health care would be a mistake I think. So he is going to have to focus on the critical problems that the US economy is facing. A sharp decline in aggregate demand driven by the fall in household wealth, leading to a reduced consumer spending and then all the usual things that follow in a business cycle from that. And secondly, the downward spiral in house prices that is hurting the financial markets and contributing to this first problem of declining household wealth. So that is what he is going to have to focus on. And if he focuses on it in a good way, in an appropriate way then I think we will see the downturn come to a more rapid end, not immediately but in 2009 we will be able to see an upturn begin and the economy move ahead.

Q: Thank you, Professor Feldstein. My question is similar to the last question in terms of the reason why the US dollar may not decline as you said. One of the reasons you mentioned that the dollar would not decline was the fixed exchange rate of the RMB which is now one of the largest trading economies in the world right now, it remains non-convertible. How big is that factor in not allowing the US dollar to decline. And if the RMD remains non-convertible and therefore reducing the capability of other assets to be held in the RMB.

A: Well remember that the US dollar did decline, it came down some 15-20% against other traded currencies so the real trade weighted value off the dollar came down quite substantially. The Chinese did keep the RMB fixed for a number of years but then they relaxed that policy. While there is not capital account convertibility, they will allow the exchange rate to appreciate it. And that lead to over a significant amount of time for the RMB to significantly appreciate, not as much as needs to happen and not as much as the Chinese will allow to happen going forward. But I think the Chinese are confident that they can substitute domestic demand for a very large volume of exports that they have had in the past.

Q: I have one question. Recently we have heard that Russia and China have aggressively invested around the world for the development of oil. Some experts say they want to replace the dollar for the settlement of oil prices. So I heard that even Russia has opened an oil futures market in St Petersburg. How would you feel about the replacement of the dollar in oil settlements?

A: That is a question that is asked frequently and the short answer is that it does not matter at all. It doesn't matter if the oil market was to change to a Euro market and everything was to be settled in Euros it wouldn't change the global price. Because the global price of oil has to reflect the price in dollars to dollar-buyers, Euros to Euro-buyers and Yen to Yen-buyers. So it doesn't matter what currency you denominate the price of oil because ultimately it is going to have the same supply and demand affects and is not going to change the price here in won or in dollar in the United States.

Q: I have two questions. Where do you think the blame lies for this financial crisis? And do you think more public funds should be put into the markets otherwise this recession will continue?

A: I think there are many sources of blame here, but the principal thing that happened was in the housing market, it was not just in the subprime market. Indeed, it goes even more broadly than housing to a mispricing of risk. A willingness of portfolio investors and households to take greater risks and associated with that was provision of credit on easier terms than was appropriate. We saw it come to an end in the subprime housing market but the problem was more general than that. What happened in the housing market in the early part of this decade was that house prices had increased dramatically.

They had gone up in a way that we had not seen before. It was clearly a bubble and that had to end and come down.

The second thing that was important in this process was the very high ratio of loans to the underlying value of homes. The banks and others were prepared to lend 90 to 100% the value of a home when they originated a mortgage because house prices were increasing so fast that they thought that if you just waited a year or two the loan to value ratio would correct. That would work as long as house prices were going up rapidly but it stopped working as soon as house prices went down. So we now have 1 out 4 mortgages in the United States now is greater than the underlying value of the house. And that is particularly important because we have a mortgage system that is unique globally in which the mortgage loans are so-called “non-recourse” loans. Which means that the creditors can take the house if an individual defaults on a mortgage but cannot come after other assets, other savings or income. So there is a strong incentive for individuals to default. So we see that now with defaults and foreclosures going up rapidly.

And the third and final piece of what happened in the housing market is securitization. If you go back to 1990, 10% of all mortgages were securitized but by the middle of this decade it is about 60%. So a dramatic in securitization, which led to these mortgage-backed securities being put into investment forms which were highly leveraged. So you put these three pieces together and that is what caused the crisis. House prices came down, loan to value ratios went over a hundred per cent, individuals defaulted on their mortgages and the holders of residential-backed securities said “We don’t know how far this is going, we don’t know what our counterparts have in their portfolios, we don’t know if they are insolvent, whether they are liquid so we don’t lend to them.” And my judgment is that if we don’t solve this housing problem, we will not solve the financial problem and we will not stop the economic downturn. Even if we do that, the decline in consumer spending may now be so great that we need to have a substantial fiscal stimulus, a substantial government spending program and I think that will come once the new President is in place.

Q: I have two questions. Looking ahead into the next few years, people expect recession plus deflation. Something like what happened to Japan in the 1990s during the “lost decade”. Or some people expect inflation because of the low inflation rate and liquidity provided into the market. So after this short period what would you expect to happen?

And my second question is would you like to comment on China. A quarter of our exports go to China, so what happens to our economy depends a lot on what happens to China over the next few years.

A: Thank you. Many people worry that after a very short period of deflation associated with the decline in oil prices, with the decline of food prices so that the headline inflation, comprehensive inflation of consumer price index may actually fall for a year. But core inflation will not and looking beyond a year there is no reason why these economic conditions should produce negative price changes. So we can look to 2009 as a year of low inflation. But you ask rightly what happens longer term than that.

I don't think that the increase in the price of liquidity caused by the Federal Reserve will lead to inflation. I think they are aware of what they have put out and they can reverse it with traditional open market operations. Inflation is not a technical risk, it is a risk in a change of sentiment, of policy change attitudes going forward. And I think it is not in any sense inevitable but it is a risk going forward four or five years that we will see a political willingness to tolerate higher inflation that we have not seen in recent years. That people will forget how painful and how worrying the recession was around the year 1980 and that there will be a sentiment to allow inflation to increase in order reduce the real value of debt and other things. So I think that is something we have to be very careful of. But as of now, the financial markets in the US are not expecting inflation and we see that in the interest rates and the rates on interest-backed securities.

What about China? I came here from Shanghai. I go to China every spring. I think the Chinese understand the current situation. They are starting with an enormously high trade surplus, they have the intention to cut that trade surplus and these global economic conditions are accelerating that pace. So while there is worry in China about what is happening to small and medium-sized export firms, those are more or less the firms that China wanted to see shrink and concentrate more on domestic demand. And I think the Chinese government will pursue policies, they are doing it in monetary policies and I think in other policies, to stimulate both household spending and also government spending on what could be roughly called consumption. On education, health care and things that have domestic content rather than exports. So I think that the Chinese economy will slow this year but it will not decrease that dramatically. But the Chinese market is a reexport market, so the reductions in exports from China will reduce the imports of components and equipment from Korea that is part of that complex process.

Q: Thank you. Two questions. What is the prospect of the dollar status as a vehicle currency? What topics will be discussed at the G-20 meetings in respect of the future monetary system?

A: The dollar is a convenient vehicle currency. I thought you were going to ask about the dollar as a reserve currency. I think there we see countries properly diversifying, these are no longer reserves. When Korea has 240 billion dollars, those are no ordinary reserves those are an investment vehicle. When China holds 2 trillion dollars reserve, those are not for traditional foreign exchange stabilization purposes, those are an investment. So wisely governments are diversifying those.

I think the dollar remains primarily a vehicle currency for denominating trade. But I think it does not matter. Within Europe, it is all the Euro. And with countries trading primarily with Europe it would make sense to base their pricing in Euros rather than dollars. In answer to the question on the price of oil, I don't think it will change anything fundamental.

What will happen when the G-20 meet? A lot of posturing, a lot of grand statements and a lot of head of states declaring that they have the plan to save civilization. But I don't think much will happen.

Q: I agree with your opinion that the dollar will be depreciated in regard to other currencies in years to come. Everybody here though will be concerned about how much the dollar will be depreciated by.

All of the people in the world hope for the current economic turmoil to end soon, so when would you expect the financial turmoil to end?

A: I don't want to guess when the psychology will shift and dollar will start to come back. It will depend on how much how the second question works out on what happens to the crisis. I think it has substantially more to fall though. Until a few months ago, when I spoke about the decline of the dollar, I would have said it can't fall more to the

Euro, the Euro is at 1.50 or 1.60. The Sterling is at 2 dollars. But now those two currencies have appreciated quite substantially and there is room for significant further declines against those currencies as well as against the currencies of Asia and the RMB. So how far the dollar falls has to be answered on a real trade weighted basis, because you can't answer it on a single currency basis nor can you do it on nominal terms. But I would say tens of percent. I am not going to say whether that is 20 percent or 40 percent but quite substantially from where we are today.

When does the financial crisis end, how much damage does it do? That depends, as I indicated earlier, upon what the policies are of the new administration. In my judgment, the Federal Reserve has done everything that it possibly could do. The Treasury has copied what the British and Europeans have done in terms of the financial markets without significant impact. So the key issue going forward in my judgment is whether there is a way to be able to rebuild confidence within the financial institutions about counter-parties. About the willingness to lend to each other and outsiders and even about the confidence of the value of these assets that these institutions are holding. Because if you don't know what you are holding or is worth, you can't be confident about taking a risk to lend to each other. And that all depends on stopping this downward spiral on house prices and so far the government has done virtually nothing to deal with that. And my hope is that the next administration will focus on that and if they do, then the financial problems will come to an end in 2009.