Good morning, ladies and gentlemen. It's a pleasure to be here.

Thank you Governor Subbarao, for a wonderful speech. And I am a little bit tempted to say something like, are there any other questions? But I suppose I ought to say something. I feel rather fortunate to be here. On Tuesday, my two young children were in the hospital on IVs, and I was not sure I was going to get on a plane, so I am really quite delighted to be here. I would like to congratulate RBI on its 75th Anniversary . Congratulations on the long history of many jobs well done, and in particular, in the context of the present crisis. I am going to thoroughly endorse several times Governor Subbarao's conclusion that this central bank and other central banks had a major role in preventing a repeat depression.

And it is also quite clear now, when we are 10 months out of the depths of the crisis, India and China,have weathered the storm better than any other countries in the world. This is noteworthy and impressive. I am not a central banker, and I am not going to stand before you today and pretend to have either the insight or the experience that most of the people in this room do. So my plan for this morning instead is to try to interpret the experience of growth in the post-war period, which has been really quite remarkable by historical standards in the developing world and then make some comments on what the lessons of the crisis are, and then maybe perhaps turn to some pressing questions relating to central banks, globalization and policy going forward.

I am relying on the commission on growth and development, which has been functioning since 2006 and has issued two reports. This is a commission populated mainly by political and policy leaders from the developing world, and I had the privilege of sharing it. So this is a perspective, I think, from the developing world.

In the postwar period, there are 13 countries that have managed to grow at the rate of 7% or more on average for 25 years or more. There are two other countries that most of us are quite sure are going to enter that group. India is one, it is just a matter of time, and probably Vietnam is in that category. There was a pattern coming into the crisis of expanding real growth in the developing world on quite a broad front, but the journey I think is held in terms of the structural dynamics as to whether or not that growth will return and be sustained in the post crisis period. This is really quite a small number of countries as compared with the whole developing world, and I will talk a little bit later about what the basis of this kind of growth is and how it relates to the crisis and the environment that we are going to face in the future.

The G20, however you define it, probably should be the G14, you know, the EU offshoots that Angus Maddison says, the BRIC said and the other developing country members. The G20 accounts for about 85% of global GDP at this point. It is clearly the main event, it is also the place where the incomes are either high or the rates of growth are predictably high. It is two-thirds of the world's population, and it is clearly going to be the dominant influence in policy.

Now, let me talk about this pattern of high growth. The strategies and policies employed by these 13 countries were in a sense designed to take advantage of the growing integration and resources available in the global economy, and that global economy provided essentially two essential ingredients. One was knowledge, technology, management skills and so on, which was being transferred around, and that increased the productive potential of economies much faster than that can be done on a stand alone basis, and then a vast

global market in which one could sell without turning the terms of trade against oneself in almost all cases with the possible exception of China. So the strategies leveraged the global economy.

On the domestic side, what went into that? Well, a key ingredient was a stable macroeconomic environment that was conducive to investment. This growth, which is driven by private sector investment, both domestic and multinational, foreign direct investment. A second key ingredient of this kind of growth was very high levels of investment including public sector investment. As a kind of benchmark, the commission felt that to sustain growth at that kind of rate, you needed public sector investment of the order of 5%-7% of GDP. It is very difficult to be very precise about that, but many, many countries fall short of that standard.

We were not able to find a case in which most of that investment was not funded primarily from domestic savings, that is, it looks as an empirical matter as if funding that kind of investment in relatively poor countries using foreign capital and foreign savings is a risky proposition, and there are lots of examples of that. To sustain that kind of growth, you really need as a primary asset, people, and so a key component of that was very heavy investment in human capital. Think of education, and human capital where the investment is efficient, that is, the output is what you want, the development of cognitive and non-cognitive skills.

If my fellow commissioners were here, they would say the other key ingredient at this level would be what Indians have taught us to call, inclusiveness. We cannot find an example of sustained high growth that does not have both the intent and to some extent, the accomplishment of overtime including everybody in the process. There are two reasons for that. The economic reason is that you have to take advantage of the people in the economy and their potential increase and productivity in order to sustain those high levels of growth. And the second one is if you leave a whole lot of people out, then you will develop political economy problems. So think of Latin America. The large Latin American economies are called middle income economies. Why? Because the average income is a middle income level, $5,000 to $10,000 dollars, that turns out to be an average of very high incomes at one end and very low incomes at the other. The high income part is going to have growth potential on the same order as the advanced countries, and the low income part has been left out of the economy. It is a dual economy structure, and so the growth just simply can't go up and stay up at those 7% to 9% levels.

The other key economic ingredient of this, I think, is the willingness to sustain and support and promote what I would call the chaotic microeconomic dynamics of the competitive process. This involves competition, entry, exit, continuous diversification, and structural change in the economy. It is uncomfortable. There are all kinds of pressures to resist it, and the most obvious one that you can see in many countries is, countries that reach the middle income transition, as it is sometimes called, are at the point in which the drivers of growth in that economy are about to be killed off by the natural forces for competition in the global economy. You can't run labour intensive goods and services, industries and sell them to the global economy and have income levels of say, $8,000. And there is a tremendous tendency to try to resist that.

On the political economy side, I guess I would say two things. One, it appears, first of all, the government is a key component of this. It is an investor, but more importantly, the leadership function, is important. This is a very difficult process that people have to, in some sense, buy into. It is also a process that requires a great deal of pragmatism, a

willingness to use judgement, a willingness to make mistakes, a willingness to experiment. This is a world in which the models are incomplete. We do not, we simply do not know, although we sometimes pretend we do, the necessary and sufficient conditions for growth and development and poverty reduction, and successful governments are ones that take that in stride and act accordingly.

I was going to say something about the Washington consensus; I think I will just very briefly. John Williamson wrote down in 1989, a list of guidelines for growth and development. They had a somewhat macroeconomic focus, but they were very intelligent, and I think they have stood the test of time rather well. The problem with the Washington consensus was in its application. People interpreted it as a formula for success, which means essentially an assumption that there were necessary and sufficient conditions. So that turns out not to be a good assumption. It also was interpreted in parts of the world as a prescription for limited government on the ground that government make mistakes and sort of gets in the way, and a fairly extreme form of privatization and liberalization that I don't think any of us think is the wise course now.

There are in this process subtle areas of judgement, industrial policy, these are controversial. The industrial policy is one, exchange rate management, that is, the governor just mentioned, is another, the pace and sequencing of the opening of the capital account is a third, and we will come back to these in just a minute, and finally the pace of opening up of the real economy in order to somehow balance the job creation and the job destruction process in the course of growth, is another area. What about governments? Well if you look at these 13 economies or 15, let us say, what you find is that they are all over the map in terms of forms of government. Some are democracies, some are quite autocratic, some started out quite autocratic and turned into with dominant political parties and so on. If you look at the failures, the people, the countries that didn't grow very well, you see a similar pattern of extreme variability in the form of governments. So I think the useful conclusion to draw from this is the form of governance is not the explanatory variable, at least with respect to economic performance. It has more to do with the intent and the conduct of the government whether it intends to grow and reduce poverty, whether it, you know, proceeds in a fairly inclusive way and so on. It is an important subject by the way. I think I would say as a plug, that the work on political economy that is now going on than some of the more important work in the area of development.

If you look at the fairly large collection of countries that at least for an extended period of time did not seem to grow and did not seem to be able to take advantage of the global economy, what do you see by way of explanation of the shortage of performance? Well, you see fiscal and monetary instability, quite frequently, and that I think, most of us agree is destructive. Hyperinflation, unsustainable fiscal positions, defaults, crisis of a variety of kinds are fatal to the investment process and to growth. Second, you see low public sector investment to a surprising degree. Almost everybody agrees now, that the government and the private sector are complementary inputs to a dynamic process, when the public sector policies and investments create an environment in which both the private sector dynamics can work. An important part of that is public sector investment in hard and soft infrastructure, and yet those things fall short.

A third explanation are major failures of inclusiveness, and I have already adverted to the Latin American case, I would just add to that the comment that I made there. If you take as a measure of whether or not things are inclusive of the Gini coefficient and ask yourself where are the high Gini coefficients in the world? The answer is-to the extent that we can

measure them accurately,-they are in Latin America and Africa. And that is probably not a surprising correlation.

A fourth possible explanation is excessive reliance on foreign savings, which I have already mentioned. The fifth explanation, and probably the one that explains the largest number of failures, is relating to political economic dynamics, that are destructive. Because of veering away of the goal of growth and development, and these last ones where the political economy fails, and it is not really an economic problem where the hardest ones can solve. Because they basically have to be solved from within and the dynamics are such that it is very hard to know where to get a handle on that.

So this spreading pattern of growth is something that is going to change the world, we hope it continues in the post crisis period. What was the role of central banks in all of that? Well, central banks became increasingly competent at getting control of inflation, and that was an important contribution. It became increasingly good at managing shocks, both those generated internally and externally, and the crisis is an excellent illustration of that, but certainly not the only one. They managed volatility with skill and judgement, and that is critical for the investment environment to drive the growth process. And they achieved a level of autonomy that allowed them to make politically unpopular choices and apply the kind of credibility that is an important and tangible asset.

I will tell you one thing, there is a balance to be struck between autonomy and independence on the one hand and what is sometimes called accountability on the other hand. One of my fellow commissioners, whom I will not name, in a fit of frustration privately described the central bank in his country as an independent republic. I mentioned that only to say I actually think this is a fairly hard problem. You do need independence, you do need to be able to act autonomously both in and out of crisis, on the other hand you know, the strategy, if it is going to work, has to actually fit together and the central bank has a critical role to play in that.

Let me turn to the crisis. The implicit assumption I think going into the crisis, was that the global economy was a relatively stable place. There were partakes of instability, sometimes fairly serious, there were contagions and other things, but I think most of us assumed that the basic structure was there and that the growth model that I just described that was being deployed on a wider and wider front, and so successfully was a pretty safe bet. That turns out ,I think with the benefit of hindsight, not to be true. What we had instead in the advanced countries, particularly the United States, was a dangerous asset inflation fueled by largely unregulated excess leverage accumulation. The epicenter of this was the United States economy and to some extent, Europe, and although the pattern of leverage does differ across the countries that were the origin of this.

This instability, if you like gave rise to an unsustainable pattern of consumption and savings in the United States' economy and therefore deficits that were also unsustainable and then the system broke. I mean, my personal opinion is that it was going to break.The problem for contrarians in investment is you never know when it is going to break and so it is hard to be credible, because we can't say precisely when it would break. A contrarian who says it is going to break year after year after year, loses his or her credibility. When it broke, we had a balance sheet originating near depression, which spread to the real economy by the balance sheet effects and then it spread to the rest of the world very quickly via two principle channels. One was financial - the withdrawal of capital to show up damaged balance sheets in the advanced economies and then the nearly instantaneous credit tightening that had to be encountered in the rest of the world and was done so very

successfully in the major developing countries. I will take an aside here, there are many, many countries in the world that do not have the resources, think of it as the non-G20 to stabilize in the context of a situation like that.

I think one of the lessons of the crisis is that the IMF is incredibly important. It's capitalization is important, getting it's government structure jiggle around so that everybody is happy with it and certainly trust in the institution, which is growing, is incredibly important.
The second channel was rapidly following a demand, aggregate demand in the global economy and that was fairly dramatic, but what was really dramatic and I think still somewhat mysterious was the drop of in trade. We have had sort of trade drop numbers in various parts of the world 30, 40, the case of Japan more and it is not entirely clear why, to put in the language of finance, the beta of trade is so much larger than one. I think it is an issue that, you know, in the context of stability in the global economy, deserves to be addressed. I think there are bits and pieces of explanation like drying up of letters of credit, protectionism and so on, so I am not suggesting nobody has had any ideas about it, but they don't add up to an explanation of you know, 6% drops in economic activity, corresponding to 25% to 30% drops on the trade side and those turned out to be the really large effects.

Central banks, I am going to perhaps repeat a couple of things, but I think it is useful for an outsider to save them. Debtwatch and brickbats being yielded about the role of central banks in monetary policy in the origins of a crisis, but the central banks were the heroes of the crisis response. They used their autonomy to act aggressively, quickly, and speed was of unbelievable importance in a panic situation. The political system simply cannot act that quickly. It does not matter how it's configured. It has to debate and discuss things and you just don't have time. It acted unconventionally. Being a lender I have encountered the same terms, but became a substitute lender when at least in the American situation, virtually all of the channels accredited into mediation disappeared including the shadow banking system at the same moment. So the federal reserve through the agents was buying commercial paper and whole lot of other things. I am sure that was uncomfortable territory for the central bankers and something that they'd rather not do, but there was not anybody left standing to accomplish it and then the credit had been restored to avoid the indiscriminate destruction of the economic activity and businesses. So I think it is the majority view that the central bankers had the lead role in saving us from a very serious depression like scenario.

I think it is important as we go forward to try to learn some lessons from the crisis and so I would like to turn to that. I think the challenge right now is to exit from the crisis and response mechanisms. I think the central banks, if allowed to, can do this in a measured way reasonably well. My concern is that the central banks because of fiscal problems will have their independence undercut in the course of trying to do the exit. But I do think that is a subject that will come up in the course of the days ahead. I will come back to it in a minute.

The growth commission met after the crisis to ask ourselves the question whether everything that we just said four months ago was wrong. We had the great good sense of timing to publish our main reports called the growth report in May of 2008, brilliant. We like everybody else did not see this coming and not everybody else, I apologize, there were notable exceptions and we did not listen to them, and so we met again in April of 2009 with the benefit of hindsight we had just bottomed out in the crisis part of the recession. And we asked ourselves the question, what modifications are required in developing countries in

terms of growth strategies and what are lessons that we have learnt that are important going forward? I will try to give you a flavor of that and then we are going to talk about some challenges that are coming up.

First of all the developing countries, on balance, withstood the crisis remarkably well and beyond I think anybody's expectations, with India and China in the lead. There are a number of reasons for that and I think they hold lessons for at least the medium term going forward. One, developing country's financial institutions and other entities did not hold what are now called toxic assets and other peculiar items on the balance sheets including excess leverage. That was an important factor in being able to respond quickly to the credit challenge.

Second, for the most part, the dominant presence in the developing country's financial systems is still banks and they are dominantly domestically owned. I don't mean—I am not taking a position on whether they should be owned by the government and hold their own part, but domestically owned and I think that is important. And the reason is the central bank needs working partners in responding to a crisis and then sort of working its way out of it. And the simple truth is that in a crisis of this magnitude in the advanced countries, the government and the central banks change the role from referee and regulator to referee and regulator and major player and partially in charge depending on what portion of the system you are talking about. And the multinational entities who are based in those countries are then marching to a drum that's being beaten by the government and that is the domestic agenda. So I guess, what I am trying to say is as a matter of prudence and safety even though I once countered to that kind of tradition of increasing globalization, it really is important at least for a period of time here in the absence of a kind of global regulatory mechanisms to have a domestic presence. And I think it is clearly true and I hope, I am saying something slightly controversial, there are, you know, fairly obvious limits to financial globalization with the underlying structure that we have.

Another thing that the developing countries did not have and this is a point Martin Wolf makes, they did not have financial entities who had carried major liabilities associated with foreign either people or entities and so they did not acquire when those institutions get into potential trouble, which they could have, liabilities to foreigners—public liabilities to foreigners as some of the advanced countries did. That problem is important, I mean in Europe there are lots of examples of entities that cross borders to an extent that they are too big to save, if the responsibility for saving it falls on the government in which they are based.

Shadow banking, the process of, you know, delivering credits outside the banking system, securitization and so on. I think it is not something we felt should be stifled so that the recommendation was and I think this is consistent with behavior that what one wants to do is have that proceed at a major pace with appropriate attention to the legal and other infrastructure and that the product should be what I would call plain vanilla, that is to avoid, you know, the complex highly leveraged derivative versions of that.

Finally, this I think is controversial, some version of the utility banking model in which there is a restraint on what the banking sector can do in other parts of the financial system. We did not take a position on whether the Volcker Rule is right or something more traditional, but I think the idea is right that it is not a good idea to have a financial systems in which all the channels of credit intermediation can fail at the same time.

Montek Ahluwalia, who is the member of this commission, is the Deputy Chairman of Planning Commission in India told me and I am repeating something I said yesterday, he said if you want to say something say something that somebody disagrees with or it is not worth saying, so let me take a short at that. By the way he attributed that view to Larry Summers and I think that sounds right in the given history. I believe one of the lessons and again I am not a central banker is that there is a singular focus on inflation targeting or even you know price stability narrowly defined is not a wise course of action. In the global economy, there are lots of reasons why inflation can be under control. If you look at the pre-crisis period, China in the manufacturing area was becoming a major force, it is fairly easy to demonstrate that they drove down the relative price of manufactured goods in the global economy because of the scale of the operation that took one element of potential inflationary pressure out of the system. So the question really is what is the default? If there is no inflationary pressure, do you sort of leave interest rates down and not worry about it too much or do you do something else. I have tried to understand the pre-crisis build up. My amateurish take at least in the new American context is that we lower the interest rates in response to the bursting of the internet bubble followed by 9/11, we left them down for a period of time, the economy leveraged itself up for a variety of reasons including either nonexistence or lax regulation and then we started to raise the interest rates into an overleveraged environment creating something that looks almost like a time bomb that eventually went off.

Now, I think second proposition is, I think, a central bank or somebody; well I am going to make it for the moment the central bank, has to pay attention to the balance sheet dimensions of an economy. That means leverage, that means asset prices and it means judgement, it means making mistakes and it means we do not have a formula that tells us when we have an asset bubble. I think we are pretty sure that we do not want to have an asset bubble turbocharged by leverage again. One of the reasons that Alan Greenspan's arguments held sway for such a long time is it was hard to answer the question how do you know it is an asset bubble. So it depends a little bit on where the burden of proof lies and in my view is that one of the lessons of the crisis is that the starting point where the burden of proof lies on the person who has to prove there is an asset bubble or some thing is out of balance is a bad starting point because it leads to inaction and dangerous results.

The hedge fund and proprietary trading sector, I think, is a major problem. It seems to me without being terribly precise about this is the Volcker Rule is not a bad idea. If you combine the Volcker Rule, which roughly speaking is to remove the hedge funds proprietary trading from the sort of other side of the system, produce a new dividing line and then you introduce a set of fairly pragmatic reasonable restrictions on leverage margin, you know reserves, reserve requirements and so on, on the one side of the ledger that you have at least taken a step forward in increasing the stability of the system. But the hedge fund side has the potential all by itself to destabilize the system. You know before we, some of us remember long-term capital. Long-term capital was a potentially destabilizing event and that was basically a highly leveraged hedge fund. So I think we cannot duck the question of what kinds of regulation are needed on the proprietary trading hedge funds sort of side of the business and regardless of who it falls to, we are going to have to wrestle with that problem. I actually think this is an area that requires serious additional academic research. I don't think we know how to do that nor do I think we normally equip ourselves with the data to do it. Many of you are in this world that I have talked to people at the New York Fed who in the middle of the crisis said we were just flying blind or we had no clue what the actual connectedness of the balance sheets of these institutions was and therefore we could not assess whether or not the solvency of one was a threat or much of a threat or not much of a threat to the solvency of others.

This brings me back, I think that I covered that, it brings me back then to the central bank role and I will just express some opinions, which I think will be discussed in much greater detail in the rest of the conference. The central bank will surely continue to have monetary policy inflation interest rates and so on and perhaps for at least in some cases, some attention to growth and employment as a primary mandate and for that it needs to continue to have autonomy. I, like a lot of other people, am worried about the potential threat to the autonomy of central banks as part of the sort of post crisis process. I think that the crisis taught us that the central bank needs a wide range of discretion in responding to serious shocks of the type that we just experienced.

I also believe as I think Governor Subbarao, you know, hinted out that the central bank has a comparative advantage in the area of macroprudential supervision, which means assessing whether the system is becoming unstable at least in my terms. It has an informational advantage because of the work it does and it has the same kind of human capital advantage that an entity like the IMF has - superb analytical talent. When I went around the developing world in course of the growth commission work, I was very struck, country after country that concentration of highly analytical talent that is located in the central banks and that is a crucial input to this. So, I think for all kinds of reasons it makes sense to have the central bank at least as an important player in the management of an oversight of the stability of the system, which means paying attention to balance sheets, asset prices, leverage and other things that may seem to be relevant.

But that raises two issues, I think, and these I haven't had discussed yet. If that expanded mandate is for central banks relative to the practice at least in the advanced countries going into the crisis, where we assumed that the rest of the system was self regulating and have decided that probably isn't true, then what instruments, what facilities and what authorizations does the central bank need to discharge all those responsibilities. It surely cannot be true that monetary policy and a few other variables that are closely associated with it are the main instruments that give you the ability to deal with all of those things. And perhaps more fundamentally, I think question is will governments delegate that much power to an entity that is the power to manage, monitor a policy, respond with rate discretion in a crisis, you know, monitoring the balance sheet and then being the arbiter of whether the system is unstable, you know, in a world in which we, I think, all admit that we're making judgments. I think the jury saw it on that question and there is lots of evidence that people are sort of worried about it.

I do not know what to do about that. There are of course alternative proposals that will be discussed in the next two days. I rather like Andy Law's idea, that is the financial version of NTSB, not as a substitute for the central bank's involvement but as a compliment. For those of you who do not know the NTSB is the entity in the United States that investigates airline accidents or near accidents. The advantage of that system as described by Andy Law is that their only function and because it is their only function, they do not have conflict of interest. And so if over time, if an entity like that became competent or highly competent, authoritative, and listened to, it would be an important input and it might provide some coverage for the entities that have the responsibility not only to assess, but to act, because it is not conflicted in that way, it has only the analytical and informational function. Anyway, it seems to me worth discussing.

Beyond that and I will sort of wind up here with a couple of comments. We spent some time thinking about what constitutes resilience on the real economy side in a developing country. We spent sometime on this, because resilience springs out in a relatively potentially

unstable global economy to be a pretty important set of things. If we are going to rewrite the first report, I think we would have increased the priority attached to things that fallen under the heading of resilience. Where does resilience come from, as we learned in the course of the crisis? One, reserve turned out to be fairly important. There isn't yet a clear alternative to that and so that is one. Second, current account balance. A persistent relatively high deficit is a reliance on external financing to keep the economy running and it seems to me that both that and a big current account surplus for different reasons are bad ideas. The current account deficit is a vulnerable position and the current account surplus is a waste. There is no strategic reason whatsoever. If your investment rates are high of running and savings at a level well above that, then lending the rest to the rest of the world for poor to middle income developing countries is appropriate as far as I can see.

Low deficits in debt seem clearly important and therefore provide the capacity for physical stimulus. What this really means, and I think this is a very general point that I want to make this morning. There is a widespread pattern of inability to deeply embed counter cyclical policies and attitudes and cultures. It happens in the investment world for a set of reasons and a lot of other things that people study and that happens in governments. I mean, I still live for a few days of the year in California, when I am not in Milan. California is a perfect example of a procyclical governmental entity. I mean it's to the point of being sort of ridiculous. It is subject to bigger booms and bursts because of the nature of the economic activity in California.

The international dimensions are important. I mentioned the IMF before. I will just say it again that a very well capitalized IMF and I might add World Bank for some of the poor, less, more vulnerable developing countries that is governed in a way that, you know, allows all the participants to be comfortable with and is trusted is very important. So one of the achievements of the G20, and it is not a long list yet, is probably the recapitalization of the IMF.

Now, finally let me turn to some comments, which I hope, provoke some discussion about the global economy coming out of the crisis. I think we've largely rejected the self regulatory model. It does not work for a variety of reasons. One of which is that their externalities that run from the financial sector to the real economy and those externalities are never internalized and cannot be except by a regulation coming from the central bank or the regulatory authorities to government.But there are reasons because of which the system apparently, subject to lots of additional study, gets out of whack. I think the regulatory momentum is being lost. I will say some words in a minute about the situation in the United States. The real economy in the United States and Europe is in terrible shape. The unemployment rates are in the order of 10%, much higher for younger people, much higher if you count people, who have gotten discouraged and dropped out of the market. The progress on regulatory reform is negligible. In the United States, regulatory reform so far has consisted of a potential threat to the independence of the Central Bank and attacks on executive compensation, which does not seem to me directly addresses the issue.

There is a growing fiscal problem, the ones in Europe are very visible and the one in United States is also very visible and there is a risk of instability to the dollar, which I think, is probably, ought to be a central concern to many developing countries, particularly the holders of reserves and the politics are very discouraging. In my view, the post crisis agenda you know, mid and post crisis agenda has been mismanaged. I think it is very hard to address either important domestic issues or important global issues without a strong economy that has reestablished its capacity to grow and create employment and that is not the course we followed. I am no politician, so I do not mean to suggest that I know exactly

what we should have done, but lots of advice to the administration in the United States is, to get this behind us before tackling a bunch of other admittedly important issues, both politically and economically and that really was not done and now, we appear to be in a situation in which it looks like it is getting increasingly hard to get anything done regardless of whether it is climate change, regulatory reform, or other things. And that is relevant to the rest of the world, because domestically focussed and partially paralyzed American system means that addressing global issues is very, very problematic.

One of those global issues, well people have different versions of this, but I think rebalancing and restoring global aggregate demand, with the attendant benefit of reducing the rather strong and worrisome protectionist pressures would be very high on the list, I do not know how to rank order it. China and other major surplus countries need to get rid of the surpluses as a part of that process. The dialogue that leads up to that has to be a lot deeper, then it appears to be at least from the outside. John Lipsky and others have been more centrally involved in that and can give you a better sense of where that lies. I do think I know the Chinese side pretty well and they do understand that it is in their own interest as well as the global interest to get rid of the current account surplus in a way that does not damage growth, but they understand and I think the rest of the world does not completely understand that is not mainly an exchange rate issue that is a sort of very, very complex internal set of structural transformations that involve increasing household income, reducing household savings, you know, flowing income through the financial system and allowing people to sort of not save and consume. In China, the government directly or indirectly simply controls too much of the income and it is an investment machine, an investment saving machine on autopilot.

I think they understand that. That is the good news. The bad news is that they understood it in the 11th five-year plan, which is almost over and they have not done anything about it yet and there are probably political differences of opinion within China. China is not the only player in this, but it is the third of the global imbalances, at least judged by pre-crisis levels, so it is important. Finally, I think the protectionist pressures in the environment that we are likely to have, are very great, and I worry about that tremendously. For the same reasons, I suspect many of you do.

The openness of the global economy is the single most important asset available to the developing world. It will determine the extent to which this spreading pattern of growth and prosperity that we saw for much of the postwar period gets to resume. Now, you may be a little more sanguine about that if you are sitting in China or India, but that is because in a world in which not everybody can achieve their aspirations, the strong and the big will likely achieve their aspirations, but they will do it, you know, by virtue of gaining market share, to put it in business terms, and so I want to assure you the growth aspirations of the developing world are not achievable in a global economy that is configured the way it is now and so we need to restore the aggregate demand and avoid the protectionist pressures.

I will say one final thing on the US side; this is a personal judgement. I think we ran out the string on fiscal action some time ago and now the politics are telling us to continue it at a moment where we should just recede, and when we recede, it will be painful process of slow healing, to use the medical analogy. We are not going to bounce back from this quickly, but that does not mean that we should go on indefinitely de-levering on the private side and levering up on the public sector site. It just does not really make sense, so that the notion that you intervene to stop the panic overshoot in the crisis, do a little bit to jump start the economy and and then plan to exit is something that I think should be a high priority. I am not sure it is going to happen.

The final thing I will say is this. You might have expected in the period following a crisis, in a shock of this magnitude, at least in United States, that there would be an ongoing kind of serious discussion of what structural changes and policy changes and changes in the pattern of investment are required to restore a pattern of growth that is clearly got to be different than the pre-crisis one. And as I go around the world, I persistently find an implicit assumption, sometimes it is even explicit that while this was a very big shock, you know, we are going to back from it and then we will go back to what might be called the old normal, that is, something that looks like the way we were before. But at least for somewhere between 5 and 10 years, the old normal, we now know with the benefit of hindsight was unsustainable on the consumption saving side in the United States, so that is not going to happen. And if it does happen, it will only happen because we have another asset inflation in which case, we are in more trouble than we were then.

So we are going to be in a new normal, and I think that new normal should be thought of in two ways. One, I think, we have to make realistic forecasts about it. Mine are that the growth in the advanced countries is going to be lower for an extended period of time. Other people disagree. I do not think it is clear-cut, but there are a lots of structural reasons for thinking that we cannot just kind of bounce out of this with the amount of deleveraging and balance sheet restoration that is required on the household housing side. The housing sector is still essentially functioning because of government support. The commercial real estate sector may be showing moderate signs of improvement, but there are huge problems awaiting on that side, so it is very hard to be sort of optimistic about that.

The second thing, they say, about the new normal, or whatever term you want to apply to it, is that it is a work-in-progress. I mean, it is going to be determined by the effectiveness of domestic policies in advanced and developing countries, and it is going to be determined by the success or lack of it with which we tackle the major global issues that are before us in the next few years. I know you can tell where I am coming out on that. I am, at the moment, pretty pessimistic for the reasons that I have outlined, but I think the point that needs to be made here is that we are now at a point where the architects of that new normal are going to be the major developing countries as well as the advanced countries and that is a major item on the agenda.

What I was going to say when I started out there was that you might have expected in a country like the United States that there would be an ongoing debate about the going forward sort of basis of growth. I think, the thing that most worries me right now is that I do not see that debate occurring, and I do not know why. It is puzzling and it is worrying. Thank you very much for listening to me.

[Male Speaker 1]: Professor Spence will take exactly two questions, please.

[Female Speaker 2]: About assuring that the integration—that we should not sort of resist the move towards integration and there should be openness. What do you think about capital controls in this context?

[Prof. Andrew Michael Spence]: The question is "what do I think about capital controls?" I think they are essential in developing economies as part of the process of maintaining control. Let me simply say if you look at the 13 countries or 15 that engage in high growth, they all have capital controls. They differ, but they have them for a very good reason. One is as a mechanism for controlling volatility and the second one is to maintain some independence of monetary policy and control over domestic inflation. Now, you know, there

are couple of exceptions and they tend to be in Hong Kong and Singapore, tend to be on the light control side. These are small economies that just have to live with the fact, and they are very open. Singapore's sum of exports and imports is larger than the GDP by a large amount, essentially because it is one of the biggest ports in the world and so let me set them aside. That is a different set of issues, but I think the capital controls are essential.

And then the issue, at this point, is judgmental. I mean, at what pace and in what areas do you remove them. There are very few controls on foreign direct investment. That is a good idea. Foreign direct investment held up pretty well in the crisis. But hot money inflows and outflows, financial investment and so on, I think, the experience in the practice is consistent with the theory and that is that you need them as part of the process of developing the financial sector. Now, I think eventually, and I mean I have not heard an argument that is convincing, that eventually they should not disappear.

There is a related issue, which I will just comment on briefly, which is the reserve currency issue. The United States Dollar is shaky, Europe is fiscally fragmented, so that is a problem. People talk about the renminbi, but you cannot have a reserve currency with capital controls and they cannot afford to give up the capital controls so that is a nonstarter from the word go, so we are in a world in which we have got a kind of reserve currency challenge to deal with, and it may turn out to be a kind of international effort over time.

[Male Speaker 1]: Martin.

[Martin]: It is the job of journalists to ask questions. Very interesting talk. We essentially in the West socialized all the risk in the system. We went way beyond any classic view of lender of last resort. It is quite fundamental, I think. Is there any exit from that, and if so, what might it look like? Because to me, it means that essentially this system is, as long as it continues, as long as that commitment is credibly there, and it is very credibly there, is that part of the state?

[Prof. Andrew Michael Spence]: I think, that is right. I will tell you how I think about that, but it is not a very good answer. I assume later on, you are going to talk about changing debt contracts, so that we don’t have delays in transaction cost and so on associated with failures. So, I won’t comment on that because that is your idea and you thought about it in depth. But my fundamental view is that the potential public liabilities are permanent, whatever they are. In other words, however the system runs when it goes unstable and affects the real economy, it becomes a public liability and I do not see any way to duck that and so where does that lead you. Martin, I think it leads you in the direction of relatively conservative constraints on the financial system, may be selectively by sector of the financial system to try to limit the likelihood that those liabilities rising in value and become public, beyond where we were before. Now that is not a great answer, but I do not see any way to somehow give the public liabilities back to the system, but that may be a failure of imagination.

There is an Ex-ante. I heard a very interesting talk by Eric Maskin. There is this Ex-ante and Ex-post. Ex-Ante is regulation and management of risk in the system and Ex-post is emergency responses. There is a spectrum of opinions. These are related much as mitigation and adaptation are related in the climate change area. You can assess whether you want to incur the cost of Taylor insurance on the mitigation side without knowing how good and how effective the adaptation part is and what it costs because those are peas in a pod. And the same thing in principle is true in the financial system if we have sort of wonderful, I am being hypothetical here, wonderful ways of responding to crisis in

extracting ourselves with minimal damage, then I think we can be less conservative and run less risks with innovation on the Ex-ante regulatory side. I think there is a hugely important ongoing discussion, part of which will occur in the next couple of days as to where we are in that and what needs to be done to position ourselves correctly.

I will take one other question, yes madam.

[Female Speaker 3]: You listed reserves as one of the factors that contributed to the resilience especially in the real sector. I was wondering whether you were talking about foreign exchange reserves, or reserves in the sense of having backflows in different sectors of the economy and that would also probably include things like social settlements as well. But if you are talking about foreign exchange reserves, I was wondering how you draw a line between having the right amount of reserves and having too much reserves, because that obviously is one of the questions that we have about this issue of the global imbalances.

[Prof. Andrew Michael Spence]: There are two parts for that, one I did not talk about and I may be, should have adverted to it. We spent a fair amount of time in the last round of the growth commission talking about the distributional implications of shocks. This is a familiar topic, because there was a huge commodity and you know, price shock going into the crisis that caused major distributional issues particularly for poor people, because it was food prices. And this one caused distributional issues as well and our recommendation is that in terms of priorities and policy action pre built mechanisms that give you the ability to move quickly to protect people, you know with additional cash transfers, a whole bunch of other things, even employment subsidies were discussed, so I just want to acknowledge that point and say, the distributional issues, the safety nets and so on apart from the fact that a part of the automatic response mechanism, they are actually under built in many developing countries and they are important.

On the reserve question, I do not think I have a good answer. I mean probably, what is an adequate set of reserves in people's mind has gone up a little bit, as a result of the prices, but fundamentally reserve accumulation in the places where it has become big is not reserve accumulation that occurs with the primary mode of self insurance, I mean take the China case. China accumulates, and then people think, you know different, I do not want to get into the debate right now about whether they are appreciating fast enough or not. They should start appreciating fairly soon and fairly aggressively and they probably agree with that, and if everybody would shut up and stop telling them to do it, they might start. But they accumulated those reserves because they had an unanticipated spike in the last three years going into the crisis in the current accounts surplus, and for way before that they have a relatively huge net positive inflow on the private capital account, not withstanding the capital controls. And the combination of those two things produces the reserve buildup, and so if you asked the Chinese, just to take an example, are your reserves adequate, with the view to being sort of safe they would laugh, I mean they know they are ridiculously high. But I do not think that is actually the central question with respect to reserves. I think the central question is, you know, can we find ways of managing domestic and global economies so that we do not get, you know, reserve build ups that put countries at risk and cause risk in the system in the sense that if they do something precipitous they could destabilize a good chunk of the global financial system. But we do not have good answers to that right now. I mean, I guess I would put that one on the agenda.

If we are going to have managed exchange rates regimes, some countries are going to run up reserves to levels that are well beyond the self insurance requirements and then there is

a whole set of issues having to do with how they manage them, how they invest them, whether people trust them etcetera, important topic. I think it is time for me to shut up. Thank you very much.

[Female Speaker]: Thank you so much Prof Spence, thank you very much sir for that thought provoking session, especially sharing with us the critical role that central banks have played in helping the economy out during the crisis, and also the lessons learnt during the crisis.

Thank you very much, sir.