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Challenges to Central Banking in the Context of Financial Crisis

Governor's Panel Discussion on International Monetary System

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Chair:

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Panelists:

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Glenn Robert Stevens, Governor, Reserve Bank of Australia.
Duvvuri Subbarao, Governor, Reserve Bank of India.
Tarisa Watanagase, Governor, Bank of Thailand.

Proceedings:

[Announcer]: A very, very good morning ladies and gentlemen and welcome back to Reserve Bank of India's first International research conference. Day 1 of the conference was filled with a lot of learning as we listened to distinguished and eminent economists from various institutions across the globe and we had a lot of food for thought. We hope that you rested well yesterday and are ready for another very, very interesting day.

Today, on Day 2 of the conference, we have the much-awaited governors' panel discussions. The broad theme is "Challenges to Central Banking in The Context of Financial Crisis." Ladies and gentlemen, we look forward to governors' panel discussions and moderating over both sessions. We are truly privileged and honored to have with us today, the distinguished financial columnist, ladies and gentlemen, please welcome on the stage. Mr. Martin Wolf, the Associate Editor and Chief Economics Commentator of The Financial Times London. Very good morning sir and join me as I welcome on to the stage, the first distinguished panel. We have with us our honorable panelists, please put your hands together as we welcome Mr. Christian Noyer, Governor, Bank of France. Please welcome on to the stage Mr. Glenn Robert Stevens, Governor, Reserve Bank of Australia. Please put your hands together as we welcome on to the stage Dr. Duvvuri Subbarao, Governor, Reserve Bank of India. Please welcome Dr. Tarisa Watanagase, Governor, Bank of Thailand. Deliberating on the topic domestic monetary policy, I now hand over to Mr. Wolf, sir.

[Martin Wolf]: Thank you very much. It is a great privilege and honor to be moderating this panel of very distinguished practitioners of the art of central banking at a time of crisis from which I expect to learn a great deal. I have actually to get several columns out of this discussion.

Our panel discussions this morning are divided into two different themes, the present one is on the formation of domestic monetary policy in light of the crisis and the second one will be on the international monetary system. In the case of the first topic, this follows very much from the themes and I think it will be centered around the themes of yesterday's discussion, particularly focusing on three major issues, the first and most important the lessons to be learned from the crisis about what was right and what was wrong about monetary policy

leading up to the crisis, the future inflation targeting and so forth. The second segment about the crisis response and exit from the crisis and finally about the role of central banks specifically as regulators. Since the panel is perfectly balanced, in terms of representatives of central banks in high-income countries and representatives of central banks in important emerging countries, it should be a very exceptionally interesting debate, because I expect their perspectives to be somewhat different between these two groups of countries.

The second panel will focus on international monetary issues which in fact we have not discussed much in this conference with a very few exceptions, but I think most of us recognize, who have looked at this issue with any care that the international monetary system is also an important aspect of what has been happening and there has been immense debate also about reform of the international monetary system. So, it is a very appropriate place to live.

I am going to start then. We are going to have a discussion. It is going to be, I hope an exchange amongst the governors in response to questions. I hope that towards the end the last 10 minutes we can have some questions. They will come from participants rather than from the press. The press will have opportunities trying to interview people afterwards. So okay, I would like to start actually with you Mr. Noyer on how far you think that this crisis indicates the way the central banks were approaching monetary policy before the crisis and particularly whether the focus on inflation targeting was proved to be mistaken by this event.

[Christian Noyer]: Thank you very much, I will try to keep it short as you advised us to try to keep with three series of remarks. First, I think that there were mainly two lessons or questions which have been raised, which are first about inflation targeting strategies as you mentioned, the reasoning being more or less the central banks have gained credibility on their inflation targeting, then unsustainable economic expansions tend to show up more in asset prices, that is in the inflation of prices of goods and services and that may lead to restating and since cheap liquidity tends to foster risk appetite and leverage. The other question or lesson drawn by a number of commentators is about the symmetric reaction of central banks to bubbles. Then the risk of deflation leads to a stronger reaction when the bubble bursts and when it deals the insurance against asset prices that were provided by monetary policy may lead to excessive risk taking strategies.

I would personally see at least three factors playing the run up to the current crisis. One is the global imbalances. Remember that in 2004 and 2005, monetary policy has been tightened in the advanced economies. However, long-term interest rates remained insensitive to these tightening and this was described as the conundrum, you may remember and that may be related to capital inflows due to major current account imbalances.

The other one is asset shortages sometimes described in the other way around as the saving block, but I think the shortage of safe and liquid assets to invest savings in the emerging economies may well have played a role in the build up of bubbles. Finally financial market weakness, in particular the transformation of risky and illiquid assets into AAA assets has been performed at the expense of higher sensitivity to extreme events, which has been considerably underestimated obviously by market participants.

Then last series of remarks what lessons can we draw from that, what should central banks do. At this stage, I would submit three ideas. One of the objectives, certainly without prejudice of the permanent price stability objective, financial stability could be sought after

by a monetary policy. I think this approach is already well encompassed by the so called second pillar of our strategy examined, where we examined credit and monetary developments not only because we believe that they are key determinants of long-term inflation but they are also as a matter of fact, laying indicators of financial imbalances.

The second idea about the tools, it is quite clear to me that financial imbalances are better addressed by macroprudential policies. I think we the central banks, are better endowed to contribute to such policies, because we have the incentives. It's clear that the monetary policy works better when financial markets function properly. We also are used to monitor financial market developments and banks and finally we have the necessary independence to take away the punch boards just when the bodies get going and it is even more delicate when it comes to price bubbles and inflation because of the difficulty of intensifying a bubble, but this leads to, I think the development of function there. You may know that within Europe you have that through the European Systemic Risk Board.

Finally I think there is a question about both from the policy on operational perspective. The question about the interactions between monetary and macroprudential policy, I will not elaborate a lot on that, not only because I promise to keep it short but I think we need more work to understand how they can play together. I can well imagine both circumstances in which policies may have either off setting or compounding effects on the financial system in the economy and we need to understand better these interactions if we want to deliver better chance of financial stability in future. Thank you.

[Martin Wolf]: Thank you very much for very comprehensive and swift answer. I notice, perhaps we will come back to this, that you emphasized the second pillar of the ECBs monetary framework which of course policymakers and economists in particularly English-speaking countries are tended to regard as mildly ridiculous. So, that is actually one of the more interesting resurrections, I wouldn't say from the dead, but sort of intellectually rather an interesting set of questions. I am going to stick with the high-income countries for the moment before we get to the emerging country perspective so Mr. Stevens, how does this set of questions look to you and how, where if anywhere, would you differ from the way Mr. Noyer looked at it.

[Glenn Robert Stevens]: Well, let me make a couple of remarks here. I think I would not regard the recent set of events as necessarily indicating a failure of inflation targeting *per se*. It is true that some countries that are formally inflation targeting, have had very deep recessions and financial crisis. But it is also true that some of the countries that had crisis are not formal inflation targeters. And furthermore there is a number of other countries, and my own is one, in which the pursued inflation targeting has I think been relatively successful in this period. In our own case, yes we had a down turn, but far from this being the biggest recession since World War II, was actually the smallest. So in my mind, I think it would not be the right lesson to draw the inflation targeting should be in any sense abandoned or that it is comprehensively failed. Having said that though, I think the issue is with a collectively central banks we are working with the right model of the economy and I think this goes beyond, I fully agree with the notion that it's more important than many of us in the English-speaking countries might have hitherto thoughts to the monitoring credit aggregates, and for our own thought we have always try to keep a close eye on credit. But, I think the issue goes beyond that.

I think the problem is that in the models of the world which we are working with, we have only a fairly crude understanding of the behavior of financial institutions as they extend credit and the behavior of all the risk takers, so to speak in the financial sector. My guess is

that in all our models be the econometric models, or the ones we are carrying around in our heads, we have only very limited assessment or capture of those dynamics and I think that is important because if it is true as a number of people today claim that the setting of monetary policy influences the risk taking behavior of all these entities in the financial sector. Then I think it is quite hard for monetary policy to escape completely the charge that it may have however inadvertently done something to foster the build up of excessive leverage and risk.

And I think what we need to be doing is working harder on capturing those dynamics in the way we think about the world and I think down that track was the scope to duly take account of financial stability concerns in the setting of monetary policies. So I guess my story is we shouldn't throw away inflation targeting per se, but we need a richer, more realistic model of how the financial sector of the economy works and how monetary policy interacts with that, and I suspect if we can get that richer model the conducted policy will be a bit different in future as a result.

[Martin Wolf]: So this sort of inflation targeting plus in a way, and let's come back to that in a moment, to sort of tease out some of those issues. I would now like to turn if I may to Ms. Watanagase from Bank of Thailand, how does, if at all , does this crisis is breakdown in the high income country's economies from the financial crisis affect the way you look at the formation of monetary policy within your own country. Does it have any lessons for you at all, or is it actually does some other papers and catastrophe which while you have actually done rather well?

[Dr. Tarisa Watanagase]: Thank you, Martin. Well in fact, I have a list of Q&As, at least five of them. I will just try to give my views on these important issues. Short answers, probably we have more time to come back to more details later on.

The first question is the inflation targeting contribute to the crisis. My answer is no. In my view, I think inflation targeting has been able to do what it decided to do and that is to maintain price stability through the anchoring of inflation expectation. I think the inflation targeting framework has been able to do that job most before and after the crisis. Now I am going to stop right there. We will come back later about the more details.

Having said that, I must say that there are challenges going forward because inflation targeting has been able to do the job simply because, the central bank has been able to maintain credibility. Now, going forward there is a big questionmark lying ahead whether central banks would be able to maintain credibility and anchor inflation expectation. There are few challenges, first of all we are right now concerned about fiscal dominance. Secondly we are concerned about forecast uncertainty. Yesterday, we talked about uncertainties arising from the fall in potential output arising from regulatory changes just to mention a few. So basically, I think what the central banks need to do is to show commitment to maintain the credibility and maintain the independence from the fiscal dominance.

The second issue is, did monetary policy contribute to the crisis here. I purposefully make a distinction between inflation targeting and monetary policy, I think they are two distinct questions. And the answer here is yes. In my view, maintaining low interest rates for a long period of time set the stage for the crisis through the build up of the asset price and excessive risk taking behavior.

The third question is, well, should financial stability be part of the central bank's mandate? Yes, and there is no conflict between maintaining long-term price stability and maintaining

financial stability because to me both policies contribute to sustainable economic growth and the long-term well-being of the masses. When you maintain price stability the ultimate objective is to make sure that you have sustainable growth. Business sector consumers are being able to make the right decisions regarding the investment and consumption that will lead to the sustainable growth. Obviously when you maintain financial stability you should be able to prevent the cycle of booms and bursts. Because without that you will not be able to maintain sustainability in the economic growth either.

Another point here is that even though it is difficult to intergrate the objective of financial stability into monetary policy mandate, but I would like to say that they are simple micro potential tools that can be very useful and they work well, especially I think, in most if not all countries in Asia and also in fact Australia as well have been using all these instruments quite successfully. If we have time later on, I will be more than happy to share with you some of the experiences of the uses of these kind of the potential tools.

The next question is are we doing the right thing in the crisis response, in preventing the next crisis? To me, I think the answer is yes. Putting additional focus on financial stability and strengthening supervision and regulation are the right things to do, perhaps we should focus a bit more on supervision rather than regulation. The next important point that I would like to make is that although these reform efforts are in the right direction, they are necessary, but no sufficient conditions to prevent the next crisis. Because we all know that risks or vulnerabilities tend to shift sometimes very rapidly and the next crisis would be here perhaps in a very different form and different causes and impacts as well.

So I think the first thing that we need to do is to focus and have more corrective efforts in three more areas. First of all is in the area of risk awareness and also risk management. In fact, everyone had a part in the last crisis, but at the moment is a lot of finger pointing toward the central banks, toward the financial sector, financial institutions. But I think Dr. John Lipsky said yesterday that the crisis was a failure in market assessment, in risk management, and also governance. To that I should also like to add consumers who spent beyond their means. So the first lesson to draw from here is that we need to create risk awareness. We need to praise the importance of doing risk management and we have to say that the excess is bad and not sustainable. How do we do that? We just have to keep on pressing and pressing and also to demonstrate with actions when appropriate. The second area that we need to focus a bit more is to undo the moral hazards that have been put in place in this crisis. When we had our crisis in 1997, we made shareholders of the financial institutions pay.

[Martin Wolf]: Can you sort of, toward the end of this.

[Dr. Tarisa Watanagase]: Okay, I will be short. So we see a lot of moral hazards being put in place from the way resolutions are being done. This is an area that we absolutely have to pay more attention on. The third message I would like to say is very important for the policy authorities to put in place the right policy and the right incentive because economic agents would just respond to whatever policies and incentives that we put out there. So we have to be careful about that. Thank you.

[Martin Wolf]: Thank you very much. You raised a lot of very important questions taking the debate on important ways, which we will come back in a short time. Now I would like to ask Dr. Subbarao for his perspective on the implications of this crisis for the formation of monetary policy.

[Dr. Duvvuri Subbarao]: Thank you very much. I want to break up your question into two sub-questions. First, what are the implications of the crisis for inflation targeting and second, how do we from the Indian perspective see inflation targeting as an objective for the Reserve Bank.

Unlike some others, I think the lessons of the crisis are clear, which is that pure inflation targeting does not work. I must admit though that I am looking at this issue from an Indian perspective. We do not do a very sophisticated nuancing of using monetary policy, inflation targeting instruments. So I am looking at the global issue from an Indian perspective and I believe that the lessons of the crisis are very clear, which is that price stability does not guarantee financial stability. Therefore inflation targeting while important, while necessary, it is not sufficient. You need to go beyond inflation targeting. Yesterday, I talked about why pure inflation targeting is *per se* about the Greenspan Orthodoxy and the unraveling of the Greenspan Orthodoxy by the crisis.

Now I want to answer the second question. In fact I want to spend much of time giving an Indian perspective. The Reserve bank is a full service central bank unlike most other central banks. We are the monetary authority, but we are also the regulator of banks, non banks, and the large segment of the financial markets. We are the debt manager for the central government and the state governments. We are the issuers of currency. We are regulators for payments and settlement systems, so we are a multi-service central bank. I believe that we cannot just be focusing on inflation for several reasons. First, in a developing country like India, we have other concerns such as growth, such as financial stability. Therefore we just cannot be focusing on price stability. In fact if you see our policy documents, you will see that from quarter to quarter we shift relative emphasis across these three variables price stability, financial stability, and the growth. So we cannot be focusing given our development concerns just on inflation.

Second, much of our inflation is supply side driven. For example, in the consumer price synthesis food has a weight of 46 per cent to 70 per cent. And everyone has agreed including purest monetary policy theory such as yourselves that monetary policy is an infective instrument for targeting inflation when inflation comes from the supply side as it does in our country except at the line of defense in an extreme situation. Third, in India we have one wholesale price index and four consumer price indices. We are a country of one billion people of different climatic zones, different poverty levels, different economic situations. So which inflation index do we target? Inflation in different parts of the country is different. So it is not clear which inflation index we must target. Fourth reason, our monetary transmission system is quite immature. We have a large government borrowing and the fiscal concerns influence monetary policy. I would not say dominate, but they certainly influence monetary policy, but in the phase of large fiscal deficits, we have administered interest rates. So that all makes monetary transmission somewhat less than efficient.

So for all these reasons, first because of our concerns with growth and price stability, second because of inflation being largely driven most of the time by supplies add concerns for which monetary policy is not an effective instrument, third because we do not have a single inflation index measure for the entire country, fourth because of monetary transmission being less than efficient, I believe that in the Reserve Bank of India, we cannot be targeting inflation. Thank you.

[Martin Wolf]: Thank you very much. Presumably the crisis has not fundamentally changed that perspective in your case but it may have strengthened it.

[Dr. Duvvuri Subbarao]:I would think so because one lesson of the crisis for everyone for every country around the world including for us is that price stability does not guarantee financial stability and indeed even microeconomic stability does not guarantee financial stability. So the lesson is quite clear, which is that you have to be guarding financial stability as an explicit variable—as I argued yesterday, I think that is not very clear, it needs to be included in the mandate of the central banks.

[Martin Wolf]: I would like to follow up there are many things raised by this, but one in particular that I would like just clear about your different positions, so be as precise as you can the way you think about is there interaction between monetary policy and financial stability, which many of you raised in different ways, which seems to be a central theme of this conference. One view is they are essentially two different things and you do your monetary policy saying that overall macroeconomic conditions in terms of inflation targeting some sort of Taylor ruled outside world and then you have completely different sets of policies designed to ensure financial stability. And I am very interested to know whether you think that sort of perspective makes sense. Another view, which I must say, I personally hold is that there is a rather close relationship between the two because monetary policy sets the price of credit and therefore we must influence supply and growth.

I will just start with you Mr. Stevens, you will all have an opportunity to comment. How do you now see this relationship in the light of the crisis and the role of the central bank whether or not it is the regulator, though I think, there seems to be a very strong consensus on this panel that the central bank has to be also at least have a central say in the regulatory debate.

[Glenn Robert Stevens]: Well, I do not think there is any doubt myself that monetary policy intimately overlaps with the potential of nine time financial stability because what we are doing as you say at least in the events country set up with the instrument as the overnight interest rate was setting the price of short-term credit. It is true that in a number of countries it is more long rates that matter for much of the credit that is extended although in our country it is mainly the short rate that matters, but in the US or Europe, it is more the long rate. Nonetheless, the central bank is actually setting the cost of short-term credit.

As I said before it seems to me that when you think about the behavior of the actors in the financial sector, it is probably stretching things a bit to think that the process of short term credit has no bearing on the willingness and ability to take risk including by getting leverage so it seems to me that they are quite connected and I am rather weary of the idea that A) separate objectives and B) achievable by totally separate instruments, I rather doubt that that division can be maintained. That does not mean by the way that I am in favor of, you know, running after every asset price rise that might be a bubble and trying to smash it with interest rates, not at all, but I just don't think these things are quite so separable really as the strawman that I think you set up there. I guess that is my answer.

[Martin Wolf]: But just to make clear the position, I mean because this seems to me to have been the dilemma. Let's suppose you are in a world in which inflation expectations are well anchored, inflation is under control, nobody is too agitated about it, but you see broad credit aggregates, so we can measure them exploding and you agree that monetary policy has an important bearing on the latter fact. You now have two concerns and one instrument, what you actually do?

[Glenn Robert Stevens]: Well the first thing I think you do is you make sure that you are not inadvertently fueling that build up with unusually low rates. If rates were already high, then I think the problem is more difficulty. But, you know if you are sitting there with very low rates observing all that I think that is actually an argument for erring on the side of not keeping them so low even if the major macro variables are apparently on track at this point in time. And I think the logic for that simply is that some a big boom and burst if that happens almost certainly not only will give you a crash in demand and a big fall in inflation over some time arising probably a little longer than your normal forecast horizon, but it is probably going to damage the potential growth as well because there will be resource misallocation in the boom and I think there is a case for at least making sure you are doing no harm, which means not keeping rates unusually low in that circumstance you face. That is not the same thing as saying that you want to actually create a recession with extremely high rates in order to try to just up the credit, but at least, you know how.

[Martin Wolf]: So the implications are different—just to be quite clear that might mean a period in which you slightly or might somewhat undershoot the inflation target for this reason and just trying to pull the implications out?

[Glenn Robert Stevens]: This is a very hypothetical scenario and let me be very clear we are not, well actually, there is no advanced country right now that faces that I can think of, but it may become more of an issue for some of the emerging countries, but I think you might make that case in principle, particularly if you have an inflation target characterized by fair bit of flexibility, which I think the better targeting systems do.

[Martin Wolf]: Which in the way how do you see this, what I think of now is the absolutely central debate for policy making.

[Glenn Robert Stevens]: I think I would make two comments on that or give two answers to your question. One is about the ranking, the hierarchy of objectives. I would say that there must be no doubts that we have a primary objective that is price stability. Price stability must be described in terms of CPI, price of goods and services and this is the key objective as it is set in our statute the ECB having a primary objective does not mean that we have prejudice to this objective, we cannot pursue all the goals, which normally go in the same direction, I would come on that in a second. Precisely, when we look at the kind of difficulty in which we might be I think it very much depends on the time horizon that you have. If you are in what can be described sometimes as narrow inflation targeting that is you aim as having at reaching a precise price increase objective in let's say two years or 18 months from now you might be caught in a certain difficulty. But if you have what I understand Australia for instance has this sort of so-called broad inflation targeting or what we describe in the statute of the ECB as being the objective defined by the ECB as being reaching price stability over the medium to long-term that means that you need to take into account what may happen if you do not reach a financial stability. Let us say for instance if you have huge inflation in asset prices - asset prices means in particular real estate prices and that may fuel overtime adverse development in inflation of goods and services through the price of many goods or the rents etcetera.

Also, as I mentioned earlier, if you have at some point financial instability not to speak of a crisis as the one we just went through, it means that the monetary policy transmission mechanism is impaired for a certain period of time. And then you might be confronted with a lot of difficulties during a period of time simply to achieve your price stability goal and we have seen that, I mean, the price—CPIs have gone negative in a number of countries. If you check that perspective, there is no contradiction.

[Martin Wolf]: Thank you very much. Before we get to the exit strategy, very very briefly, I just wondered if Ms. Watanagase would like to comment on possible prudential tools to manage the financial system and their effectiveness, given whatever you are doing on monetary policy.

[Dr. Tarisa Watanagase]: Of course, I will be happy to. We adopt the inflation targeting in 2000. I would like to add that even though we are now in inflation target, we also monitor closely about financial imbalances. We monitor the balance sheets of the corporate sector of house or of the banking sector and when we spot some early signs of the imbalances, we take immediate actions. Well there are sequencings. We do not jump to using monetary policy by hiking interest rates from Day 1. We started to communicate our concern that we are starting to see, for example, credit card increasing in the tune of 40% to 50% a year and we follow up with needed actions. For example, in the area of credit card, we issued regulations about the minimum income of credit card holder. We put a credit limit for example that altogether a credit card holder must not have credit exceeding five times of his/her income. For example and minimum monthly payment has to be more than 10%. These are very simple prudential regulation rules and it worked. It brought down the clause of credit card to the tune of 16% to 17% after a year or two. We need the same thing when we saw the high-end property market heating up. We put in a loan to value ratio of the 70% and its worth as well. So, these are very simple examples.

I would like to add that it is very difficult to incorporate macroprudential rules into the formulation of monetary policy. We all know that our knowledge about the transmission mechanism between interest rate and credit and other macro variables is a lot less than our understanding of the interest rate, money and investment and other macro variables. So, instead of pointing that root well, of course we have to try to improve our understanding and try to come up with some vigorous monetary policy formulation, but in the meantime, I would submit that it is much easier just to implement simple micro prudential rules and they actually have worked quite well in our case.

[Martin Wolf]: Dr. Subbarao finally on this question of how you go about maintaining financial stability relationships with monetary policy and macroprudential rules. What is your perspective from the Indian point of view?

[Dr. Duvvuri Subbarao]: Many thanks. I have in the past also encountered this question being interpreted like a linear programing problem. There you have several objectives. Do you have sufficient instruments? Again from an Indian perspective, I am unable to appreciate the problem in that sense because as I said earlier in the Reserve Bank we had the luxury of several instruments and the responsibility for several objectives. So, I believe it is easier to have several instruments and several objectives rather than having a single instrument and a single objective. So the way we have handled, the way we have this problem, the way we address this problem in India is slightly different from elsewhere.

Having said that, yes we do look at a number of factors and a number of variables in formulating a monetary policy just as Theresa just mentioned about Thailand. One of the developments we do look at is asset prices. And I know that there is a debate about whether you must use monetary policy instruments or regulatory policy instruments for asset price management. Again, in India we are not so Brahmanical because we use either way, mixed them up and do not make such a distinction about what policy we use for what purpose.

In the period leading to the crisis, of course the Reserve Bank has used the regulatory prudential tools to check mispricing of risk. For example, in the years 2006 to 2008, there was employment of risk rates, provisioning norms for banks, which were instituted to check asset prices building up. But I do want to say that I do not want to rule out the use of monetary policy instruments for the purpose of financial stability just as you mentioned when you were asking the question. You also need to look at the credit build up. If asset prices are building up because there is credit build up, I think, you have to be sensitive from a monetary policy perspective not only because asset prices can have implications for financial stability, but I believe they can have implications even for your price stability objective. If monetary transmission is choked and if your interest rate signals from the central bank are not transmitting through the commercial banks, they do not then pick up the signals and then your ability to target inflation gets impaired. So, both for inflation targeting central banks and for multi-service central bank such as ourselves, I believe that you need to use a variety of instruments.

[Martin Wolf]: Thank you very much. I hope to get perhaps one or two of you to comment on the exit strategy issue very briefly at the end, but I would like at this stage just to give you in the whole the opportunity. You've got an exceptional opportunity to address these distinguished people. If you would like to ask question, stand up say you are and very pointed question. Professor Freidman. Okay. Lots of questions. Excellent. Very brief then.

[Benjamin Friedman]: Martin and panelists, I am Ben Friedman, from Harvard. I wonder if what you are collectively identifying is a new and rather different form of impossible trinity applicable now to domestic economic policy. The proposition that the aggregate of what you all are saying seems to add up to the following that you cannot have simultaneously one monetary policy oriented either wholly or primarily toward price stability. Two, a regulatory regime motivated primarily or exclusively by belief in the efficacy of free markets and three an effective lender of last resort policy. It seems to me that what you are collectively saying aggregating across the individual contributions is that those three together are a recipe for the kind of disaster that we have just had and are completely likely to have again if one pursues these three. Now, from the perspective of assuming that any two elements of the trinity are in place, it then becomes almost apparent that the third one is a tremendous mistake. But like any discussion of the so-called impossible trinity, one can start with any part of the triangle and by assuming any two sides of the triangle, then the third one becomes problematic.

So, I wonder whether either you, Martin or the other governors whom you are interrogating so effectively this morning would sign on to that proposition that what you are all collectively saying is that there are these three things that many central banks around the world today hold individually to be the right way to conduct policy, but in aggregate the three of them together are recipe for disaster, which then puts us right back to the kind of logic that the usual impossible trinity presents namely you have to pick two and jettison the third and then the differences of opinion such as we had primarily come down to the matter of which one is to be jettisoned among the three.

[Martin Wolf]: I am not sure, Ben that I got your second clearly. Could you just re-state the second on regulatory regime was based on the belief in the free market?

[Ben Freidman]: Yes.

[Martin Wolf]: Okay. I think everybody has just scrapped that, myself, may be I am wrong. Bill White wanted to ask a question. I will take four and then I will ask the panelist to do their very best three or four, yes I have noticed last, so also I am expecting that, Bill.

[Bill White]: I think this is a question may be a bit of a trick question directed to Governor Noyer when he was talking about the second pillar and the question that I want to raise is this. The second pillar was originally brought in with the idea that money had a low frequency association with inflation and that really was its origins and now what I hear Governor Noyer say is that the second pillar can be used as an indicator of growing imbalances, which might in the end lead to deflation, which is very similar to the Japanese second perspective. Now that second way of looking at things is very different from the first way of looking at things and I guess I want to ask the trick part of the question to Christian Noyer, is at what point precisely did this transformation take place?

[Martin Wolf]: Very, very, very nasty. Lars Svensson. Yes.

[Lars Svensson]: Okay, Lars Svensson at the Sveriges Riksbank. I was thinking about Martin's thought experiment that he subjected the governors, he was assuming inflation and the real economy on track and credit exploding, of course is not really the current inflation and the current real economy that matters, it is the forecast for future inflation and the future output that matters. It will be strange to see credit exploding without that having any impact on the inflation and output forecast. But suppose that is the case, in that case, would you prefer to raise the interest rates and cause recession under future inflation target rather than use macroprudential tools to control credit?

[Martin Wolf]: I will ask that question. I just would like to know that we did have a credit explosion and the one thing we did not have was inflation. So, it is very disturbing, please.

[Deepak Mohanty]: Good morning. The last question, distinguished panel, Deepak Mohanty from Reserve Bank of India. My question to the panel is are we really dialing the wrong number because under the inflation targeting, because what we are looking at goods and services prices and certainly there is a runaway inflation on the asset prices. So unless we bring in asset prices and redefine the price indicator itself, perhaps we would be dialing a wrong number. If you do not do that and we try to respond just from a macroprudential perspective and if interest rates are low, monetary policy is loose, then maybe from the macroprudential side, we have to tighten too much so that you know that real activity is killed. So, it is very difficult again also to communicate from that angle once the goods and services prices are low, but we are responding because of the asset prices under inflation targeting framework. Thank you.

[Martin Wolf]: Okay. What I am going to do is I have been given very tight limits, but I do not suppose three minutes will matter. I am going to give each of the governors in turn an opportunity to answer these questions. They have two minutes each, they can answer whatever they like, in anyway they like, but that is the time limit to keep us on track. I am sorry, from my point of view, it is just beginning to get really interesting like another hour or two, but we do not have it apparently. So, I will start with you, because there was a particular question addressed to you, Governor Noyer.

[Christian Noyer]: Yes, thank you. I will indeed concentrate on the Bill White's question. I would very much agree that in general, the second pillar was associated with the idea of low frequency that is the sign of inflation. But I think there is no contradiction, it is different, it is not that different. Why? Because if you have too much money on credit showing up, then

our view is that it will show up into either CPI developments over the long-term, that is the low frequency or asset price developments depending on the circumstances and for instance, we could plead that because of the growing importance of emerging markets, the imports from emerging markets to advanced economies, pressure downwards or industrial prices, also the credibility of central banks, you may imagine what you wish, but then that can explain that although we had strong monetary developments, credit developments, there was not really a strong pressure on the CPR or at least it was contained and the money fueled asset prices.

What happens then? As I said before, there can be two consequences, first in the long-term, asset prices, if they increase too much, measure up in two price of good services, inflation of goods and services through the rents, through a number of developments so that if we take into account the long-term objective of price stability, we might be concerned by that. And second, if the bubble bursts and then we come to a deflation rate pressures, I would also submit that deflation is certainly not price stability. So, if we have the risk of deflation, it is a concern as much as the risk of too high inflation and so, we have to take that into account too. So, all in all I think that you know there is not that different.

[Martin Wolf]: So, it was right all along for the more or less the right reason. I think I will go now to Governor Stevens, stick with the high income countries for the moment. I am particularly interested if you might but it is of course up to you with your time to address Lars Svensson's question about possible resolution of the imagined from be my contradiction by having a sufficiently long time horizon into the future.

[Glenn Robert Stevens]: Well, as with any hypothetical scenario, it would be useful to have some thought about what the underlying shock might have been to produce the scenario in question and that might have a bearing on what one thinks interest rates ought to do. But I think it is actually a bit of a strawman, isn't it to say that the options do nothing or create a recession in order to deal with the potential threat to financial stability, is there nowhere in between like you could chose that you know, you are prepared to a bit tighter or a little bit on that side just in case you might inadvertently be fueling a build up of financial imbalances with the current setting of policy. I would have thought that at least in principle since this is hypothetical and we can assert things, I will assert that such an intermediate position might be possible, short of creating recessions, I mean nobody is talking about creating recessions today in order to avoid possible bigger recessions in future. I have never found that an attractive way to present an argument. It is more about in my opinion if you see the scenario that we were given, I'm asking myself, is there a potential problem with this credit and leverage build up and am I fueling it inadvertently? And you know I would like to be sure that I am not, even if that does mean a little bit higher rate than the standard you know, Taylor rule might give you. So it's a kind of do no harm.

[Martin Wolf]: I take that as a sort of vote for leaning.

[Glenn Robert Stevens]: Yes, I guess so, okay rather than crushing.

[Martin Wolf]: Yes, I was going to ask you governor for your last thought.

[Glenn Robert Stevens]: One more thing. I am not against either using so-called macroprudential tools. Of course one would deploy those if you have them. You do not necessarily run straight to the use of monetary policy, but I think it is kind of unnecessarily polarizing in this debate to ask people to jump either into the camp of "I will always respond

to asset prices, monetary policy" or "I never will." I want to preserve a position of a never say never.

[Martin Wolf]: Governor.

[Dr. Tarisa Watanagase]: Just want to supplement to what Glenn just said that, you know, you do not have to wait until you run into the race of having to create a recession if you take preventive actions early in the process. And I think that is very important because if you take preventive action, you do not need to have heavy handed measures in the end, which can be quite painful and this is a hard earned lesson that we got from our own crisis that when you see early signs of the imbalances do something about it.

In the end if you realize that you have taken the move a bit too late, I think you just have to pay the price. If you have to create a recession by hiking your interest rate, I think that that would be the way to go and there is no easy way out.

[Martin Wolf]: I wanted to ask you governor, Subbarao how you would like to comment to this. Directly related apart from others on this question of, in particularly since you mentioned the difficulty in India's context of what is the right inflation index. How does one think about how broadly if you are concerned with inflation and what inflation index one should look at in, particularly the role of asset prices in inflation industries. But there are other questions which you might also want to address and that is entirely up to you.

[Dr. Duvvuri Subbarao]: Identifying a unique inflation index is particularly challenging in India as I had mentioned earlier, because we have a wholesale price index, four consumer price indices and there is also concern about asset prices, there is concern about suppressed inflation because a number of commodities and goods in India are under administered pricing. So this question of what single inflation index do we look at or should we target is a particularly difficult and challenging question for India. So in The Reserve Bank we look at a host of indicators. All the indicators that I just mentioned, the WPI the four CPIs, we look at the asset price movement. We will look at the number of the economic variables. So I do not think we view the problematic the way other central banks do.

I also want to use the time available to me to respond to the question that Lars had raised about the granular view that I had enunciated about the role of monetary policy in checking asset prices that perhaps the use of monetary policy instruments would be appropriate if asset price build up is driven by credit and would not be equally appropriate if it is not driven by credit. I think you answered that question partly as said, which is that you can very well have a situation where you have a credit build up, but not showing up in goods and price inflation.

So I want to say that again we are not in India very puritan about what instruments to use. We are concerned about inflation, but we are concerned about the number of other variables as well. Finally I want to say that I agree with Glenn that you cannot think binary positions on this that I will use this or I will not use this. I think what we have learned from the experience in India is that you have to take the entire economic situation at that point of time or over time and you have to look at all the instruments available to you and grapple between the objectives of price stability, financial stability, and growth.

[Martin Wolf]: Thank you very much. I'd love to continue and I think the implicitly in my sense by the way is that everybody agrees with Ben Freidman's Impossible Trinity and I think most people feel number two goes and number one, well that is what all the debate is

about namely how far should monetary policy be aimed at price stability. I wouldn't dream of summing up as I do not have the time, since I have minus five minutes is I decided Catholics tendencies in this panel. If I may use that word here in a sense that we still believe quite firmly in very, very important segment aspects of what I might think was the old religion, but it has got rather softened I think in various ways.

I would not go into that any further as it is getting theologically complexed. There is certainly a sense that monetary policy has to take into account at least on this panel what is happening with credit and asset prices, but it is probably not enough, you have to use prudential tools, not completely clear how well they will work and may be this could conceivably make the public a little nervous. And there are many questions raised by all that, which unfortunately we cannot deal with what this sort of situation does for the central bank independence, but even so I think it has been a wonderful discussion. Please thank the panelist. And may I ask the next group of panelists to come to the table.

Transcript of First International Research Conference

Challenges to Central Banking in the Context of Financial Crisis

Governor's Panel Discussion on International Monetary System

Mumbai

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Chair:

Martin Wolf, Associate Editor and Chief Economics Commentator

Financial Times, London

Panelists:

Atiur Rehman, Bangladesh Bank

Daw Tenzin, Royal Monetary Authority of Bhutan

Mark J Carney, Bank of Canada

Miguel Fernandez Ordonez, Bank of Spain

Subbarao Duvvuri, Reserve Bank of India

Proceedings:

[Announcer]: I would like to thank all our distinguished panelists and ladies and gentlemen introducing to you our next panel of distinguished governors who will be joining us, we capture this special moment. We get ready right now for the second governors' panel discussion. Thank you very much.

Well ladies and gentlemen joining us on stage continuing to moderate the next panel discussion we have with us Mr. Wolf. Joining us we have Dr. Atiur Rahman, governor, Bangladesh Bank. Welcome. Mr. Daw Tenzin, Managing Director, Royal Monetary Authority of Bhutan. Please put your hands together to welcome them. Dr. Mark J. Carney, Governor, Bank of Canada. Please welcome them on the stage. Joining us on the stage right now Mr. Miguel Angel Fernandez Ordonez, Governor, Bank of Spain, welcome sir, and once again with us Governor, Reserve Bank of India Dr. Duvvuri Subbarao. Deliberating on the topic International Monetary System once again handing over to Mr. Wolf.

[Martin Wolf]: Thank you very much. I imagine we might pick up some of the issues that have been addressed. But for the opening remarks I sort of like to start with the following question. Was the international monetary system in some relevant aspects a central part of the crisis story? If so, in what way was it a central part of the crisis story and what are the sort of really big issues it raises before we start looking at reform of particular institutions, regional monetary arrangements, sort of focussing on the big picture of how the monetary system operated? I have been one of those persons who does believe that the perfectly understandable desire of countries to insure themselves has led to an extraordinary excess demand for dollar reserves and that this did play a quite important part in the backgrounds of the crisis.

If I may, I would like to start and this is somewhat random with Governor Carney of Bank of Canada for his perspectives on the relationship between the international monetary system,

monetary policy and this crisis that we have seen and therefore the issues before us. May I start with you?

[Dr. Mark J. Carney]: Thank you very much Martin. I guess your first question was whether the system failed and I guess I would turn it around slightly and suggest that we failed the system in that there were many causes of this crisis, but certainly its intensity and its scope reflected the unprecedented disequilibria that built up across a number of major economies and I think Christian Noyer and others alluded to this in your previous panel, so I will not go over it, but I would attach myself to the group that viewed the build up of these imbalances and the bond conundrum as part of the story, only part of the story but an important part of the story. And why did that come about? It came about because of the classic problem that has bedeviled monetary systems over the ages, which is that there is an asymmetric adjustment pressures on countries, it is easier as a surplus country to delay adjustment than it is as a deficit county to forestall adjustment. And we saw over the course of the last decade what began as credential self insurance grew to proportions that appear, even given the experience of the crisis, to grow to levels that can be deemed excessive.

And the challenge that is before us is to determine a way to go back to the conventions of the system. I am sure we will have a chance to talk about different reserve currency arrangements and longer-term transition issues, governance issues with respect to the major institutions. But I would submit for consideration that the issue is not so much about the identification of the reserve currency or currencies, but the commitment of countries to adjust over time and those commitments are not binding. They cannot be enforced in rule of international law regardless of what articles of agreement or other arrangements are, but they are commitments to a system that serves us all well or could serve us all well over the medium term and I will finish with this to give you some time back that this is part of what the G20 is trying to accomplish through its frame work of discussions, which is much, much broader than issues around few of the exchange rates, in fact that is really the residual of those discussions as opposed to the starting point.

[Martin Wolf]: But the core point you are making is that essentially this is about the adjustment mechanism rather than a specifically single currency dominance.

[Dr. Mark J. Carney]: That's right.

[Martin Wolf]: I will stick at the moment with sort of high-income country viewpoint, so I will turn to you Mr. Ordonez, how do you see the role of the international monetary system in the crisis and the really big broad challenges facing it?

[Mr. Miguel Angel Fernandez Ordonez]: Well I share the view that the current imbalance is one that is part of the picture of the crisis. Of course there are many factors that has been commented during this conference, but of course the imbalances matter, matter a lot. But I am more interested not in the substance where we have different views, even if we had advanced because now well some countries have said the problem of imbalances and now we are discussing the way to reduce that exchange rate or other instruments.

But what is important in my view of this crisis and I would like to highlight and we have to congratulate ourselves is the reaction that all countries had if we compare with the reaction that we had 80 years ago with great depression. I mean, I think that this reaction of increasing international cooperation through the G20, the incredible and important support that all we have to the International Monetary Fund tripling their resources and giving an important role and now we are discussing the mandate. I do not know if there is no fall in

Washinton has averted the discussion about the mandate because it was in the board this week. Then I think that is extremely important. I think most analysts could recognize that the worst of the recession of the 30s was not the recession, was the nationalist reaction and then everybody trying to solve their problems. So far we have got that. Then even if we could have differences in substances about all these questions, it is important that we maintain the way we discussed these things. And we should not take it for granted because now in my view, probably, because I am thinking in Europe, in Spain, United kingdom and all other developed countries, United States, I see very hard years ahead. Fiscal consolidation is not an easy task. Then we should avoid any temptation to solve our problems like in the past. That is why even if you want—I could enter into the substance but I would like to highlight the importance of this way we are doing the things.

[Martin Wolf]: I think that is an enormously, obviously, foremostly important point about the way we deal with this thing together. In that very context, I have used not infrequently but famous phrase about hanging together if we do not want to hang separately. And I think it is fair to say that we have at so far hung together. I would like to turn to you now Mr. Rahman, your perspective on the international monetary system and the way it has worked from your point of view in Bangladesh must be very different. I am sure. What do you feel have been the problems and its role in the crisis and how would you like to see it work in future.

[Dr. Atiur Rahman]: Thank you Mr. Moderator. I thought for the first time the concerns of the low income countries are being discussed here in this forum. We have been taking about emerging markets and also about the developed countries, but there are a huge number of countries in term of population they are quite substantial. The dialogues going on in the international systems do not always reflect their views and we don’t have an access point. And from that perspective, probably Bangladesh and countries like Bangladesh probably need an additional kind of access point. Despite this crisis, countries like Bangladesh, particularly Bangladesh have done very well. As you must have heard, it has been consistently growing at 5% to 6%, in fact that even last year, last fiscal was so bad in terms of international growth scenarios, Bangladesh gained about 5.9% growth, even the exports grew at 10+%, the remittance growing at 23%. So these are all indicators. Despite all the pressures- because most of our exports really cater to the needs of the developed countries- even then they did so well.

But in terms of voices, you know the Bangladesh can hardly get any opportunity to really voice its concerns in the international forums and the dialogues are going on, but we do not have a chance. From that perspective, I thought the international system should really reorient to how to take concerns of the low income countries. For that matter, I have one specific suggestion. Say for example, we now have new members like India into international dialogues on monetary policies. Countries like India probably should have, you know, discussions with South Asian countries or countries like Bangladesh before they really go there, you know and ACU could be one forum, the SAARC Finance could be another forum, so that we distil our views through India into the global forum or you know forums like FSB’s, you know they should have at least one member from the low income countries, even by turn for a year or two you know, that could be another option so that we could really give our views into the international community.

IMF of course has been changing, but still has not succeeded in preventing many of the build up of imbalances of its important members. The mandate for the IMF, probably in a new global monetary order will need to have adequate safeguards against, you know, the laxities of their most important members. And also the IMF probably have to be more

inclusive in terms of its information data. I will just give you one example. IMF as of today has not reflected its concerns or its suggestions on financial inclusion, which probably the RBI, the Bangladesh banks are pursuing so much, which held up the domestic demands, because of which finally we really faced financial crisis so well. So in terms of any discussions on issues like that where we had the strength, probably would have helped others to understand how these countries really did better. Even the data on liquidity, probably projected by the IMF you know, not always reflecting on the realities of these countries. So I thought there is ample scope for you know, reforming the international financial systems to take the concerns of the developing countries, particularly the low income countries and particularly those countries who are doing better. I think I will stop there.

[Martin Wolf]: Thank you very much. I think that is very, very important issue and I will certainly ask Governor Subbarao about his view on your suggestion for the role of India in the G20 in reflecting some of the concerns of its neighbors. And may I also congratulate Bangladesh on its performance, the benefits perhaps of not having an overdeveloped financial system. May I now turn to you Governor Tenzin to talk about this from I think a very special sort of perspective, how does the international monetary system concern you?

[Mr. Daw Tenzin]: Thank you Mr. Chariman. Bhutan is a really small country as all of you know and we are not hit by the recession not because we are resilient, but because we did not have the capacity to integrate, either financially or through trade. But last October when we went for the IMF-World Bank meeting in Istanbul after the G20 meeting in Pittsburgh, many important changes took place primarily with recapitalization of the IMF. I think yesterday some of the presenters who brought out the issue about the resilience covered with the reserve level, current account balance, low deficit, low debt level, and even capital control. And I think for sometime the global issue in our part of the region has been whether the US dollar as the international reserve currency stands still credible because including a country like Bhutan, you know where the reserve is so small, yet over 80% of our reserve is in the dollars. The American dollar as a reserve currency, as a unit of account, as a medium of exchange and a store of value, now in most of the emerging economies, the last concern was the biggest one because of many reasons. And I think being a very small country though and if the global concern is the balance and too much finger pointing to the surplus and then driving of the demand, but however, I think if the international monetary system has to change and change in a positive manner and including the IMF quotas where the members are distributed, the first criteria is the size of the GDP, second is the openness and third is the size of the reserve. And now the question is building of too much reserve is creating imbalances, what should those countries do? I think these are few things which many emerging economies are quite concerned.

And for Bhutan our currency is pegged to the Indian rupee. We are in the monetary union. And I think in certain cases, the impossible trinity pushes us so hard as the central bank. However, given the reality of any monitoring authority or central bank, monetary policy is not purely economics, I think there are different dimensions to it, but it is very, very heartening that the IMF is coming back. maybe a little more relevant. primarily because when the article IV mission comes to our country, when they look at our reserve stock, is it opened up.

I think South Asia survived primarily because of capital control and for a small country like Bhutan where the reserve build up is largely through granted and soft loans, there was no way we could open up. The question was, I think the Anglo-Saxon capitalism melted the virtue of liberalism and I think we have come to a point, where we reinfused state

capitalism in place. And the question now is, can the fiscal dominance prevail over monetary policy. I think yes. The reality is yes. There are two many things we have to read and I think many talks are being held, questions are being raised, which currency in our opinion could emerge as the international reserve currency apart from the American dollars at this point of time. And I think many emerging economies, if you look at in our part of the region, but still their currencies are not convertible.

So what are the options left even for a small country like Bhutan. We are highly perplexed with the dynamism of the crisis. It is quite sad. You know, I always wish that Bhutan were in a position to be hit. I regret that we did not have the capacity to integrate, but that does not mean that Bhutan should not and we should. I think any kind of a regional monetary arrangement at this point of time even talking about the ASEAN, you know, I do not think just now in our part of the region that can be our immediate concern. We have other matters to take care of. And I think as a small country, you know, yesterday we also looked at many times when the IMF mission come and even one point of time in 2005, we were being called saying that we are eligible for a debt pardon because the debt to GDP ratio crossed over 75. Now we are not even talking about 130 as a threshold level so where do we stand. And as a very small economy we are getting perplexed and confused, but I think there are good reasons to believe that many things are coming up. I think crisis gave us opportunity to redefine the disciplines in the market, our consumption patterns, even the use of currency as a reserve currency. I think it is flowing into a very positive direction. Thank you Mr. Chairman.

[Martin Wolf]: Thank you very much. We raised a lot of important questions from a very different perspective and Governor Subbarao, you are member of the G20 of course, also a developing country, we heard also from you neighbors. I will be very interested in your perspective on where you think the international monetary system has gone wrong and where it should be going broadly.

[Dr. Duvvuri Subbarao]: Thank you. The answer to your direct question, which is whether the international monetary system was found to be inadequate as a consequence of the crisis, I think the short answer is yes. We had found that the international monetary system was inadequate to deal with the global imbalances that were building up. I agree with Mark that even though this crisis erupted as a financial crisis, there was structural root causes and one of the structural causes was the global imbalances building up. It is immaterial at this point of time whether that build up was because of excess consumption or a savings glut, but the fact is it that because these imbalances were building up and because countries with current account surpluses invested those surpluses in central banks and treasuries in the US and the other advanced economies gave us too much liquidity and which in turn drove the search for yield and drove this financial innovation. So I believe that there is a link between global imbalances and the developments in the financial sector and it will be wrong to see them as independent developments.

About India, of course, we traditionally had current account deficits, except for a few years when we had done marginal surpluses so to that extent we had not contributed to global imbalances, but we have been as the part of the global system, we have had to bear the consequences of imbalances. Often times, the question is asked how come nobody saw the crisis coming. I think that question is no, and then economists get very sheepish and say that some people did in fact say people like Bill White and all that saw the crisis coming, but yes, a majority of people did not see the crisis erupting as a financial crisis, but a large majority of people did see the crisis erupting as a hard landing for the global imbalances. I believe it is just incidental that we had built up an unstable system. It was unsustainable,

and it had to explode. It is incidental that it exploded in the financial sector. We could very well have had a currency crisis, but we just had a financial crisis, but it is the same dirt, it is the same accumulated dirt that erupted and led to this crisis.

Now, the other question that I want to raise and answer is that are we looking at global imbalances as part of crisis resolution. I worry that we are not giving it adequate attention, that even as we are talking about some redressal of imbalances, countries making some internal adjustments, I believe that this is a problem that concerns all countries around the world and everybody has to get together and solve this that is not getting sufficient attention. In fact, I worry that perhaps in resolving this crisis, we are sowing the seeds of the next crisis. The next crisis could be a currency crisis, it could be a fiscal crisis, but perhaps we are sowing the seeds for another crisis.

Last, the question about India's responsibility towards its neighbors. I believe that yes, we have a responsibility. People do talk about G20 representing 80% of world GDP and 75% of world population, yes, but we must remember that there is 20% of world GDP and 25% of world population, which is left out. In fact, I do know that when India is left out of international forum, we worry about it, so if India is getting a place, I believe we have an obligation towards our neighbors because even as Governor of Bhutan said that the economic linkages are still underdeveloped. There is scope for a building on the linkages, but as India gains a place at the table, I think we must redeem our responsibility to our neighbors. Thank you.

[Martin Wolf]: Thank you very much. I hope to come to this question of representation and the reform of the IMF as an institution towards the end, but I would like to just follow up a little bit, perhaps I can return to you Governor Carney. This question of adjustments in the currency system, which I think in different ways is being raised now. You have argued if I understood it correctly that the issue is really adjustment, we should focus on that and now some people would argue that the two are really intimately related because the fundamental point was that for various reasons predominantly emerging countries decided to pursue policies that led to enormous accumulations of foreign currency reserves. They increased about 6.5 trillion dollars in the last decade, which is a really astonishing sum overwhelming in developing countries. Obviously a very large proportion of that was in dollars and for reasons that when we think we refer to as the Triffin Paradox after Mr. Triffin. Obviously that is likely to be associated with a large current account deficit in the currency provided in the reserve providing country, in this case, the US. Now, we know that it need not be the case, but the association is empirically stronger we understand, why. So is it actually possible to separate the adjustment question from the key currency question? In anyway, doesn't that then lead one to the sort of debate that is now emerging about the possible role of international reserve assets like the SDR, which of course the Chinese government, the Chinese Peoples Bank has raised? It is a long question, but it does seem to be a central set of issues. I will be interested in your perspective on these links.

[Dr. Mark J. Carney]: How much, would I have 30 seconds to answer.

[Martin Wolf]: Why not?

[Dr. Mark J. Carney]: Okay.

[Martin Wolf]: No, I give you all the three minutes.

[Dr. Mark J. Carney]:All the three minutes. Thank you very much. Well, no, I mean, certainly without question one of the benefits of being a reserve currency, the exorbitant privilege if you will, is an ability to delay adjustment and arguably that is the flip side of the conundrum that we have referred to in the United states in this case, but it does not end the adjustment, it certainly comes. The point I was trying to make and I did make it, I did not draw it out, but I will now, is that the countries that really can delay adjustment obviously are the surplus countries. And if the system evolves to either a broader range of reserve currencies or the use of SDRs and I will come to that in a moment, as a reserve currency, as a surplus country particularly surplus countries with relatively closed capital accounts, relatively repressed financial systems and ability to sterilize, adjustment can be delayed for a very long time. I mean it will ultimately come through wages and prices, the real exchange rate adjustments, but it can be delayed for a very long time and these strains can begin anew and go back to the previous discussion in terms of the relative efficacy of macroprudential policies that can also be used to delay adjustment as well or can be thought to be used to delay adjustment and build up vulnerabilities anew.

So, that is the point I am trying to make as there needs to be a commitment of the major actors to adjustment over time for well functioning system. That does not mean an immediate move to floating exchange rates, that is not what I am talking about, but it is an adjustment of domestic policies that are consistent. What is the potential role of the SDR? I guess the first thing I would say is that we welcome the intervention of Governor Joe on this issue and we think it is an interesting issue for discussion. It is a long-term issue for discussion. The prospect of SDR as a meaningful reserve currency are remote on any reasonable time horizon partly because of the governance structure of the IMF, partly because it does not solve the adjustment problem in our opinion and in fact it just distributes exorbitant privilege to the constituent members of the SDR, the usual currencies of members in the SDR. We have said that there may be some use in exploring a substitution account as a one off reserve diversification mechanism that would be part of a broader move towards a more flexible global system, but that is a big conversation. I would term that as a medium-term conversation, if I term SDRs as reserve assets as a long-term. Why don’t I stop there.

[Martin Wolf]: Does any of the governors wish to comment anymore on this adjustment and currency link question before I go onto the mutual assessment program of the IMF. Please governor.

[Mr. Daw Tenzin]:Can I comment on this reserve system?

[Martin Wolf]: Of course.

[Mr. Daw Tenzin]:Of course, the US dollar and Euro are the two major currencies at the moment, but there are also imbalances creeping up in the European union and that too really make Euro equally vulnerable as reserve currency. I thought the global system should gradually move into couple of more currencies, which are more convertible and for stability of the global reserve system needs a handful of perhaps around four to six fully convertible currencies of fairly large individual economies or regional monetary unions in the discipline of a global order effectively maintaining imbalances at a minimum. I think that is the one area, even I would think that currencies of the larger fast growing economies like, you know, China, India, Brazil have potential for reserve currency role over the medium term and I think we need to think in that line. The currencies of the new regional monetary unions would have been preferable given the typical stronger commitment of monetary

unions to balance stability and these can only be in the longer term, but these are areas we need to focus.

As for the SDR, I thought a possible option could be a reformed IMF in a new role as that affects global monetary agency annually issuing or recalling SDR locations inline with actual or potential growth in global output with liquidity issues in national or regional currencies by members needing to be fully backed by IMF, SDR allocations, a mechanism in likeness of gold standard with global output growth as substituting for gold. I think these are some of the ideas we may focus on. Thank you.

[Martin Wolf]: Yes, I must say that I am very sympathetic to the last line of argument. Governor Subbarao, you wanted to speak and perhaps you would like to comment on the future role of the rupee as international reserve asset. All these were specifically raised by the governor from Bangladesh and of course implies among other things the abolition of exchange controls in India, matter of some moment I think for Indian policy makers.

[Dr. Duvvuri Subbarao]: Thank you. First two other questions before I come to your question, which is can the US dollar be displaced as the global reserve currency and second more particularly can be SDR take the dollars' place.

The US dollar did not become the global reserve currency because countries around the world got together and decided that that not to be the reserve currency. It became the global reserve currency because it inspired the trust and confidence of countries around the world. Our staff have done some research in preparation for this. I will just give you some numbers to indicate the dollars dominance in the global system. The US accounts for 22% of world GDP, they account for up to 15% of world trade. You had referred to the Triffin dilemma, which is that the US is able to provide sufficient dollar denominated assets for the global system to run. I cannot see any other country having a large enough economy to do that. I believe 67% of the global foreign exchange reserves are in dollars, 90% of the global foreign exchange transactions are in dollars and a large majority, not a majority, but over one-third I think more than one-third of the countries in the world link their exchange rate to the dollar. So, the dollar is a dominant currency and I do not think it is possible that we will decide at a conference of G20 or the IMF and decide that no we will have some other currencies. I think if some other currency or a group of currencies have to displace the dollar, I think that has to happen in an organic manner.

Now, about whether the SDR can displace or play some of the functions that the dollar is starting. Now, I think that is a tall order because what is it, I think there is total SDR issue in the world today, but may be about 350-370 billion including the latest issue that they have done of 280 billion and I cannot see 380 billion of SDRs being a reserve currency for global trade. Second, the SDR is not a claim on any country. I believe it is not even a claim on the IMF in a strict sense. So, what do you do with the SDRs? The SDR is just a unit of account at the moment. It is not good for anything else. So, unless the SDR acquires other attributes required for a global currency I believe it is not possible for the SDR to replace the dollar. I also want to respond to another question that is not come up, which is about diversification of your reserves and you know all central banks or governments as the case may be they have managed their foreign exchange portfolios and we do that too. We bought gold two months ago from the IMF and that question came up about what view are we taking on gold or on the dollar or on other currencies and I believe we bought gold because we believe that was a method for diversifying our portfolio. It is a relatively small amount. Our total gold holding after the purchase is still less than 10%. Thank you.

[Martin Wolf]: Do you want to comment on the rupee as a reserve currency?

[Dr. Duvvuri Subbarao]: I hope it becomes a reserve currency.

[Martin Wolf]: But perhaps not under your tenure?

[Dr. Duvvuri Subbarao]: I do not know how long my tenure is. So, I cannot comment on that.

[Martin Wolf]: It is clearly intimately related to decision both the size of the Indian economy, its integration in the world economy and obviously the full convertibility of the currency and I would assume the last is not going to happen tomorrow.

[Dr. Duvvuri Subbarao]: No, it will not happen tomorrow, but we have a roadmap for capital account convertibility and that roadmap itself is dynamic, it is adjusted depending on the evolving developments within the country and around the world. People have asked us, "Are you backing down from your capital account convertibility roadmap? I believe we are not. We still traverse the roadmap, but we will rework the roadmap depending on global developments and the supplementary question to that is what capital controls will you use until you achieve full convertibility? I believe that we will use them flexibly as we have used in the past.

[Martin Wolf]: Thank you very much. Just very briefly because I would like to go to questions, and we started a bit late, and I will just do that runover a little bit. A sort of reform of the IMF, some people might say that with 8 trillion dollars of reserves in the world and, even after the remarkable increase of last year, IMF resources of seven, leaving aside the SDR issuance of 750 billion approximately, obviously must vary by the day, the world has sort of taken a vote. Just in the way it voted for the dollar by decisions, it voted against the IMF. By saying that, "If you want safety, you build reserves for yourselves and that is the only way to be safe" and the reserve accumulation suggested. Against that background, and I will turn to you Mr. Ordonez, if I may, against that background… How relevant is the IMF? How does it need to be restructured to be a credible institutional center of the international monetary system? What are the issues in your view from that and our regional monetary institutions of the type that are now being developed in East Asia a relevant alternative? Of course, the currency union in Europe is quite an exceptional thing.

[Mr. Miguel Angel Fernandez Ordonez]: Well, I think that it is true that the crisis has vindicated certain views that we did not have before the crisis, especially this idea of reserve accumulation of a self-insurance. That is, I think, we have to accept that but, at the same time, this does not mean that we should not try to solve this problem by other means that could be less damaging, especially if reserve accumulation goes far from a certain self-insurance. In that sense, I think that we should use many, many ways, not just one way. For instance, I think that regional monetary corporation is a good thing and we should not see regional corporations as competing with other, for instance, the IMF's role in this situation.

Then, I think that we should do many things. I think that when we face this question of the international monetary system, sometimes we are listening to a proposal that remind Esperanto or something like that, an incredible solution, and I view this in a different view. I think we should do many things. One is the role of the IMF. I think that as I said in my first intervention, I think it is crucial, the role of the IMF and it's crucial we strengthen the IMF. I do not see any other institution, not the G20, not the FSB that, for other reasons that could

play a role on this question, multilateral surveillance. It is going to be better than any other kind of bilateral discussion on these questions. I mean, of course, the attempts done so far has not been successful, I mean, we have to recognize, I mean, in the last year the IMF tried, but that does not mean that we should not go in that direction because I do not see any other good alternative.

At the same time, the IMF could increase the role of insurance supporting what the countries are doing by themselves and what their regional corporation is doing there or what they tell. I think that is not something against that ideas, but that could be a good complementary question. In general, I think not only the IMF, but the countries that—do allow the chairman, the countries could find other different ways to increase the resilience to the problems that can be created by this international monetary 'non-system', like some said the word, but we are doing many, many things and let me only finish with one question that is, "What has happened in Latin America? Latin America has been very resilient in this crisis. One of the reasons has been that those countries increased their local debt markets in local currencies on the depositor base. And I follow this very, very closely because the Spanish banks are very active there and they have helped to do that and that has increased the resilience, then if we are doing many, many things, we could increase their resilience of the system to the problems that are created. And of course, I insist, I think that IMF is crucial in this role.

[Martin Wolf]: Do any of the governors want to comment specifically on the future of the IMF in the context of reform, very briefly and then we will go take two or three questions.

[Dr. Atiur Rahman]: I thought IMF could still encourage regional monetary unions and that could be scope for countries with reserves... enough reserves to go for, you know regional bonds. I thought that is an area, you know the stronger regional monetary unions could be a source of stability for any kind of financial corporation and also sustainability. I thought IMF could move in that direction encouraging the initiatives like CMI or any other regional kind of unions coming up. Thank you.

[Martin Wolf]: I want to take questions from the floor, but I am going to give, if he wants to, John Lipsky the opportunity to respond or answer a question relating to the role of the IMF, which is clearly central, I think quite in a way you went on the panels, suppose you are not the governor, but it does seem that you should respond to this really very interesting discussion.

[John Lipsky]: Yes, thank you very much. Just very briefly, hopefully we are responding to virtually all the suggestions that were placed here. I suspect that it is well-known, first of all, that we have a commitment to review the voting shares in the institution by January 2011, and hopefully that will settle the issue of legitimacy. Secondly, I would underscore remarks made here at the panel and I made yesterday, of the importance of the G20 framework process as a new innovative way of addressing the issue of global imbalances and more broadly making macroeconomic policy coherent. It is an important initiative, a difficult one and when I hope it receives the appropriate support and the cooperation of the key G20 countries.

I would also like to say that the fund is ceased, the emergence of regional arrangements, the strengthening of regional arrangements as long as they are consistent with the global system as both natural and desirable and we look forward to continuing to deepen our cooperation, for example, with the CMI or Chiang Mai initiative that we see as a positive one and not a problem.

Moreover, we are actively, as it was mentioned by Governor Fernandez, we are actively pursuing the review of our mandate and with that seeking to review our facilities to be able to provide better insurance like the facilities that would represent a real alternative to individual build up of reserves. If the lesson learned, one of the conclusions from this latest crisis is everybody needs to self-insure, it does not require a lot of ingenuity to understand that if everybody tries to build reserve simultaneously, it is going to be deleterious for the global community. And hence, on one hand, the framework will attempt to address that and secondly improving insurance facilities as an alternative to individual reserve build up through the IMF, we hope is going to be an useful and successful initiative. I will stop there. Thank you very much.

[Martin Wolf]: Thanks. It was an extremely important additional point. I think that was Bill Poole, was it? Could you give Mr. Poole the microphone?

[William Poole]: I would like to comment about the international financial system. I am going to focus on two aspects of the system number dimensions to what we mean by the international financial system. Let me talk about the exchange rate regime and talk about the system if you want to call that international capital flows.

[Martin Wolf]: The microphone isn't working perfectly, hold it if you would as close to your lips as possible and speak quite loudly, I apologize.

[William Poole]: Okay, so I am going to talk about the exchange rate regime and the system of international capital flows. I want to confine my remarks to the period of the crisis, let us say crisis broke in August of 2007 and roughly speaking the following two years. When we went into the crisis, we had a system of exchange rates with floating rates among the major currencies I would include in those the US dollar, the Euro, the yen, and the pound sterling and UK pound. A number of other currencies floated freely against those major currencies, some other currencies were pegged rigidly and there were other intermediate arrangements of managed flows.

In terms of international capital flows among the major countries, capital flows were market determined and were not subject to capital controls on the whole. Now, during the crisis those arrangements did not change and the crisis was not marked by exchange rate crises, countries did not intervene to control or affect international capital and so I would regard the international financial system in those two dimensions as having worked very effectively during the crisis largely based on market principles and not a huge amount of government intervention into the international financial system.

[Martin Wolf]: Thank you very much. I think it is a very important point that the crisis we did not have was the crisis many of us did expect, which was a currency crisis and I think it is an extremely important point. Thank you very much for making it Mr. Poole. Yes, Professor Prasad, I think.

[Prof. Eswar S. Prasad]: The link between this panel and the previous discussion seem to be basically that central bankers such as yourself are being buffeted by these four. You have an international financial system that has a variety of weaknesses - institutional and otherwise. You stick institutional weaknesses and financial markets that are just waiting to cause mayhem and you are operating in the midst of this very difficult environment. Now, it seems to me that much of the bifurcation of views that we saw yesterday can actually be traced back rather than views about whether inflation targeting is right or whether one

should look at asset price bubbles into a more fundamental philosophical view about how or what monetary policy can achieve. I characterize it as a modest vision of monetary policy, which would be that essentially monetary policy can do one thing, which is maintain price stability, however, defined and that leads to good things like macro and financial stability.

Now, Governor Subbarao has articulated a very different view that price stability may not necessarily be consistent with either of those and in fact once in a while could be in conflict with those, but then the question arises what is the right framework to do monetary policy in and this what I would characterize as the policy where essentially one wants to do a lot and it is omnipotent so much by choices, by compulsion. That forces you into this set up where essentially you are not working within a framework and I think this was what would make people like Lars and Bill Poole somewhat concerned that essentially there is an attempt to deal with a lot. They would probably agree it need to be dealt with, but without a clear framework in mind.

So the question I would like to pose to this panel is essentially if you are in an environment where you have to deal with you should know the monetary policies are not often dealing with deficiencies in the international financial system, dealing with supply shocks, dealing with counteracting defects of physical dominance and so on and you know you have to do it. It is the right approach still to essentially take the inflation targeting of some framework related to that improve it, in other words do we just need better models that take into account things you should care about or do we need to move to something completely different where essentially the old vision of monetary policy is being limited in its objectives and what it can achieve has to be thrown away and you have to become omnipotent central bankers.

[Martin Wolf]: I think we are getting additional panelists, but a very important point. I will take one more, I think I do not know the gentleman at the back, yes please you, you got the microphone, yes, yes, go ahead.

[Sabapathy]: Thank you sir, I am Sabapathy from EPW Research Foundation. Taking cue from what Bangladesh Governor said, if we encourage regional monetary arrangements it need not necessarily be treated as an alternative to the international monetary fund. Now international monetary fund playing the role in international monetary cooperation and international monetary stability can that be achieved through a decentralized arrangement, for instance, regional trade blocks are not treated as contradiction to multilateral trade cooperation, similarly in development area we have world bank, United Nations Organizations and we have regional arrangements in Latin America, Africa, *etcetera.* Similarly, if we have regional monetary blocks it can act as a federation, but IMF can head that federation, can we have that kind of an arrangement? Thank you.

[Martin Wolf]: Thank you very much, I hope, I got most of that on the role or regional arrangements. One more question if anybody has another question or comment very, very briefly? No, everybody is exhausted, I am going to, because of the lack of time though I am just taking out time from my own summing up, which you can probably dispense with.

I think that the question from professor Prasad, which is really directed to you Governor Subbarao, though others may wish to comment on it and it is a variant of the old discretion versus rules issue. You have put forward a very broad view what the central banks has to do. And in the context of a very complicated and messy world as he pointed out, does that mean abandoning rules governed though, target governed policy making for such a wide range of discretion as to be almost impossible for the outsider to understand.

[Dr. Duvvuri Subbarao]: I wish I had a direct answer to that question, but I do want say that we grapple with that all the time. But again I cannot agree to everything that professor Prasad is saying, which is that we must be targeting inflation because that way we will be transparent and we will hold ourselves accountable to define outcome, but the world is not so simple and especially in a country like India, you have to look at not just inflation, but we have to worry about a growth concerns, development concerns, we have to worry about financial stability concerns.

It is true perhaps that because we shift our emphasis from one variable to another from time to time and because we are less than completely transparent or clear about what specific objectives we are driving at each point of time, it is difficult for people outside as interlocutors as it were to evaluate our performance or hold it accountable. I know that those are deficiencies of the system but I believe that in order to correct those deficiencies to shift towards inflation targeting, I think would be impractical and serve our system less than well.

[Martin Wolf]: Governor Carney I think you wanted to comment.

[Dr. Mark J. Carney]: Yes, thank you too. I will make two points on this very interesting question. First, I do not think things are beyond our control. I wouldn't describe that omnipotence, but the openness of the system, the effectiveness of the G20 framework all that is within, we will influence those. That is the first point. The second on the specifics of what is the objective of the central bank, yes we have to, at least in our view, we found having an inflation target during the crisis enormously useful. We must say that you know sentiments swung, certainly markets from deflation to inflation to and back and just been able to have the clarity of objective and communication normalcy useful. That said, I would subscribe to, I think what you do drew chair in the last panel to an important point. I think Glenn Stevens made it most directly, which is that in the setting the price of short term credit, there is a link by the financial sector to financial stability. And I will take advantage of Lars's tendency here to just link between that flexible inflation targeting. And I think one of the debates or discussions we need to have is how do we score at the circle without hearing adhoc if we are leaning for asset price reasons. And one of the things we are thinking about the Bank of Canada would have it settle down is whether by using price level targeting you can retain the credibility and clarity of targeting a path where you would potentially, purposely deviate from that path for reasons of financial stability. In our final point, we are not blessed with a range of tools that Governor Subbarao and his institution are blessed with so it partly reflects on the institutional structure in Canada.

[Martin Wolf]: Does anybody else want to comment on that or anymore to be said on the, it might be particularly, interesting actually from the Bangladesh point of view on the regional monetary arrangements issues.

[Dr. Atiur Rahman]: Just I want to add here, in support to Dr. Subbarao, I think the flexible targeting of inflation should be our main course, but we should also have salads and desserts and in that we need to have all the other objectives, which Dr. Subbarao have on the growth concerns and other concerns could be our additional items in the menu, thank you.

[Martin Wolf]: I think in that case given the time nobody wishes to add that I should bring this also very enlightening panel to conclusion and I believe I have now left myself five

minutes for summing up, which will be fine. So, I am going to make just a few points about this very interesting discussion.

I felt that we are, maybe, central banks are a little more less complacent than I thought they were yesterday, so it was a very sober and interesting discussion. I think, one of the issues that arises, perhaps this is a way, perhaps this is not the fast slightly rhetorical way of addressing this fundamental question of a monetary policy financial stability is when does flexible inflation targeting gets so flexible that it ceases to be inflation targeting in any sense. Flexible is a very flexible word and it can cover a large number of things. My sense, for instance, to comment earlier of Governor Stevens is that, it is perfectly possible within a well anchored inflation targeting framework to allow for the possible longer term effects of serious deviations in credit growth and other things that might in your view affect credit growth and then ultimately either inflation or deflation and the Governor Noyer talked about that. And it is probably reasonable to do so without doing anything as crazy as trying to create serious recessions in order to knock on the head possible bubbles.

I take this to be a degree of flexibility, which is not inconsistent with flexible inflation targeting, but others might not, this might be a matter of degree, but clearly the general view remains that, I do not think any Governor disagrees with this, while inflation targeting, while it might well be reasonable to allow for other things particularly financial stability, in monetary policy it is important to allow for this link between monetary policy and financial stability, nonetheless anchoring the inflation expectations remains a very, very important objective. I do not think, I heard anyone even from any of the emerging country suggest otherwise. I do not know, whether that is an adequate compromised position for the moment, but it seems to me more or less where the discussion ended, in each one, in which I am personally reasonably comfortable.

There was a very interesting discussion obviously prudential both micro and macro, but not as detailed as one might have liked. My sense from this is these are very important things. We have learnt that the financial system is not automatically self stabilizing, have we not and therefore that competent authorities should be concerned about micro stability clearly and also possibly the use of macroprudential type instruments. How effective they would be, my sense of the discussion is there is some skepticism about the effectiveness of these, but they have to be tried. I do not think there is anybody on these panels who disagrees with the view that if such instruments are to be used, of course the central bank should have them in its control who else, but then given the composition of the panel one would be very surprised if any other conclusion were reached.

I happen to agree with the view by the way. It seems to me intellectually defensible as well, but it is not surprising. An issue that did not arrive actually should have been because of really lack of time, but many people refer to physical dominance. The concern therefore of how we get out of the extraordinary fiscal positions we have particularly in the developed countries and that of course raises really a fundamental issue about whether the independence of the central bank, which has been a sort of dominant theme of recent years will be maintained and I think that is one of the bigger worries.

Finally, on the sort of discussion of domestic policy, I mean quite naturally and inevitably and I think absolutely, appropriately governors from emerging countries emphasized the range of responsibilities they have that was particularly true of Governor Subbarao and also Governor Tenzin from Bhutan. The very specific difficulties, very different ones of course they have in concerning the problems of countries with vast numbers of poor people who are very vulnerable to certain sorts of mistakes, the difficulty of measuring things like

inflation properly, I think, it is very important to remember that central banks have functions, which are very special in its context of the emerging countries.

Now finally on the International Monetary System, I think sort of two cheers for the dollar and nobody doubted that it would remain the dominant reserve asset for the foreseeable future and we had to manage adjustments within that context that was a general perception that cooperation and coordination among countries have been exceptional and exceptionally successful. We had got through this crisis not only as Bill Poole points out without a serious currency crisis or serious introduction of capital controls, but also it has to be said we got through this crisis with, I believe a remarkably small increase in protection. There has been some protests about it, but if you actually look at it for somebody who followed trade policy for 40 odd years, I think the amount of increase in protection we have seen so far is astonishingly small given the severity of recession particularly in major developed countries that may not last, but it is I think a massive achievement of international coordination and this is of indication for the decision to treat this as a shared problem.

When I think of the "winners" of this crisis apart from emerging countries like India, which have done so remarkably well and China of course I have to say that there is no doubt at all that IMF is the great institutional winner. Its resources have been greatly increased. It has been extraordinally flexible in the way it is responding to this crisis, arranging new facilities in a way that I certainly have been able to keep up with. It has been given responsibility for this fascinating mutual assessment program and among G20 members countries I do not know what will come out of this, but the IMF is a winner and of course nobody on the panel denied its central role, whatever the regional monetary cooperation might do, nobody denied its central role. Of course one of the price of being a winner, John, it is more is expected of you. So you are expected to fix many problems.

I think that is at least a reasonable summary of some of the main points of these fascinating panel discussions, so at the end of this chastened in some regard, but at the same time the sense I got out of this is, the world did not collapse. The system is together to some degree cooperation is still functioning. We seem to have gone through this, let's hope we manage to do as well with the very difficult challenges of exit over the years ahead and with that I conclude the panel sessions. Thank you.

[Announcer]: Thank you very much sir. I thank each one of our distinguished panelists. I am sure we want to capture this special moment as well. All right, we have photographers coming up in front once again I am sure they would want to capture this special moment with all our distinguished governors in this panel discussion as well. Thank you very much. Thank you.

Ladies and gentleman, please put your hands together as we thank each one of our distinguish panelists. Thank you so much Mr. Wolf. Thank you sir. Now we drove to the close of this research conference. May I request Mr. K.U.B. Rao, who is in charge of the Department of Economic Analysis and Policy, Reserve Bank of India to please wrap up the proceedings and propose the Vote of Thanks. Ladies and gentleman, Mr. K.U.B. Rao.

[Mr. K.U.B. Rao]: Respected governors, respected deputy governors, eminent academicians, distinguished veteran central bankers, commercial bankers, distinguished representatives of the multilateral institutions and latent participants, my esteemed colleagues from the Reserve Bank of India, and ladies and gentlemen.

As stated by elders whatever begins will have to end. Time is now approaching for us to end this one and a half days meeting of intellectuals. During this brief congregation of very fertile minds, we have learnt from each other, we agreed with each other, we agreed to disagree with each other, therefore at the end, it is probably appropriate to make a very brief review of the broad outcome of these two and a half days conference. Towards these objectives, I will make a brief reference to sum-up the salient points that emerges from the four technical sessions and the two panel discussions. Our governor, Dr. Duvvuri Subbarao at the outset indicated why central banking could change in important ways after the crisis and how seeking solutions to the many challenges would be important for enhancing the contribution of central banks to the society at large in more effective ways and thereby regain greater credibility.

Setting the tone for the conference proceedings reflecting in essence the expectations from the deliberations to follow, Governor Subbarao outlined five key challenges of significance to all central banks in the current context. The first one being managing the national monetary policy decisions in a globalized environment given the growing complexity in the interactions between external developments and domestic variables. Second challenge was redefining the mandate of central banks giving the pre-crisis attraction of inflation targeting and the post-crisis debate on the role of central banks in relation to asset prices. The third challenge he highlighted was responsibility of central banks towards financial stability, particularly beyond the conventional LOLR function. The fourth challenge being managing the cost and benefits of regulation in view of the difficulty in drawing the fine balance between regulation and financial innovations. And the final challenge Dr. Subbarao highlighted was the automy and accountability of central banks particularly in the context of fiscal exit plans of countries as well as possible alternation to the mandates of central banks.

It was indeed an honor and privilege for the Reserve Bank of India to have Nobel Laureate, Andrew Michael Spence to grace this conference and also deliver the keynote address. In his very enlightening remarks, Prof. Spence outlined four clear rules for central banks, which are more or less established. The first one being managing inflation, the second one managing crisis both external and internal, third one managing volatility with skill and judgement, and the fourth one achieving a level of autonomy while acquiring credibility. Professor Spence supported further extension of the rule to cover financial stability, particularly given the challenges from asset policies, leverage, and regulatory gaps. He suggested the extension of the rule because he felt that central banks have the comparative advantage and macroprudential policies. They have the information advantage and there is a general concentration of analytical talent in central banks. He wondered that whether national governments will delegate that much of extra power to central banks or not remains a fundamental question.

The first technical session thereafter started with the paper by Mr. William Poole, which questioned the role of discretion in conduct of policies. His aversion to policy discretion was evident from his concluding remarks that we should not be dependent on the expertise of policy makers and the timeliness of congressional action to stabilize the economy. In the next paper by Mr. Benjamin Friedman, which highlighted that both self-regulation and vigilance by creditors do not represent effective substitutes for regulation, which has to be the responsibility of public policy to provide regulatory systems. However, should not differentiate inherently risk-taking trading from banking and differentiating hedged positions from naked positions and this should not be difficult for regulators.

Prof. Friedman underscored the point that in a financial crisis, the distinction between liquidity and insolvency generally disappears, creating testing conditions for real-life use of

the lender-of-last resort function by a central bank. The third paper by Mr. Lars Svensson stressed the relevance of flexible inflation targeting even after the global crisis, which is particularly important in the context of apprehensions expressed in some quarters about inflation focusing monetary policy involving possible neglect of asset-price bubbles and financial stability objective.

Svensson also elaborated as to why asset prices and financial stability should not be explicit objectives of monetary policy, but how both are important from the standpoint of the constraints they could pose for monetary policy transmission process.

The second session that aimed at unraveling the challenges posed by increasing globalization to central banks started with a paper by Mrs. Irma Rosenberg on a topic of immense direct policy relevance to most emerging market economies that is the impossible trinity.Rosenberg explained the unpleasant trade-off associated with impossible trinity and noted that the choice of monetary policy and exchange-rate regime is neither simple nor clearcut. She concluded with the observation that since almost all advanced countries have chosen a monetary union or a flow, there are good reasons for believing that other countries when their capital flows are free and their financial infrastructure is complete and rich, will do the same. The cost of delayed physical exit has been the general common concern world over and in this context, the paper by Mr. Stephen Cecchetti, Madhusudan Mohanthy, and Fabrizio Zampolli cautioned that the physical problems of industrial countries could be much larger than the official dead figure seem to suggest now. This could be on account of two factors namely pressure on revenues associated with possible permanent loss of potential output and rapidly aging population and the large and growing unfunded related liabilities.

The market assessment of sovereign those seems to be changing unlike the pre-crisis perception that sovereign papers carry no risk. Since the global crisis had generally been viewed as the result of weaknesses in the regulatory and supervisory systems, the focus of the third session was rightly on deliberate on options and challenges to fix them. The paper by Mr. Stephen Roach highlighted the need for both a new approach to regulatory over site and that incorporates macroprudential regulations and a major reworking of the mandate of monetary policy to include financial instability. Mr. Roach rejected the idea that post crisis search for remedy should include only regulatory measures. To quote Mr. Roach, regulatory action can send an important message to market participants, but the policy rate is fair, more powerful enforcement mechanism. Moreover, a financial stability mandate could also help in adding clarity and direction to the current adhoc approach to evaluating how's and when's of an exit strategy.

Financial innovations clearly contributed to the crisis and the excesses in an interconnected financial system generally went unnoticed. The risk of excessive regulatory response to the crisis, stifling innovations has been a general concern. The paper in this context by Mr. John Lipsky provided valuable insights and direction on the current debate on the subject. Mr. Lipsky cautioned that without a renewed effort to foster financial innovation in the global economy, all countries including emerging and market economies will underperform their potential.

The fourth technical session was devoted to examine whether financial stability should be an explicit objective of monetary policy and whether the absence of such a mandate contributed to the crisis. Mr. John Williams explained how the beige heart on 21st century looked like in the US when the fed responded to the sub-prime crisis. There are, however, limits to the beige heart prescription, i.e., LOLR cannot address the insolvency problem. Mr.

Williams then emphasized that issues of insolvency cannot be solved by central bank liquidity policies. These are probably the domain of the physical authority.

Another dimension of the central banking activities which gained prominence after the crisis is the size and composition of the balance sheets of central banks. The paper by Mr. Krishna Srinivasan outlined the key policy actions of central banks, had to adopt nimbly, decisively, and creatively to alleviate the financial crisis and examined their effectiveness in designing the exit strategy. Srinivasan stressed that the three aspects may have to be given particular attention, *i.e.*, careful and consistent communication; unwinding should not compromise central bank independence and international spillovers of differentiated exit should not be ignored. After the technical sessions which deliberated extensively on the key challenges for central banks and options to deal with them, it was time to elicit the views of central bank Governors who faced the real challenge on a day-to-day basis and often deliver without the benefit of insight.

In the two-panel discussions which Mr. Martin Wolf as the moderator, Governors of eight central banks offered their candid views on 10 important issues with the flavor of country-specific positions, nicely interspersed with their own global perspectives.

The theme for the first panel as your are aware is the Domestic Monetary Policy. In this context, Governor Christian Noyer of the Bank of France advocated that financial stability should be the second pillar of strategy. Financial imbalances are better addressed by macroprudential policy, and there is a need to better understand the interactions between monetary and macroprudential policy.

Governor Glenn Robert Stevens of the Reserve Bank of Australia put forward the argument that notwithstanding the questions raised about the utility of inflation targeting in the current crisis, it would be wrong to abandon it completely. Instead, it would be useful to develop a more realistic model, explaining the interactions between financial sector and monetary policy.

Governor Madam Tarisa Watanagase of the Bank of Thailand outlined the need for focusing more on supervision rather than on regulation. Financial stability should be part of central bank's mandate so as to maintain sustainable growth and prevent boom-burst cycles. More corrective efforts are required in areas such as risk awareness, risk management, moral hazards associated with policy response to crisis and the right kind of policies for creating right incentives.

Dr. Subbarao, Governor, Reserve Bank of India was emphatic that a lesson from the crisis is that pure inflation targeting does not work because price stability though necessary is not a guarantee against financial instability. He also explained why India has not adopted explicit inflation targeting even though price stability is clearly one of the overriding objectives of the Reserve Bank of India.

Coming to panel No. 2, the theme for the second panel was international monetary system, which also covered five very critical issues. Governor Mark J. Carney of Bank of Canada emphasized that the important issue right now is the adjustment mechanism between surplus and deficit countries rather than a single currency dominant or the issue of reserve currency. Governor Fernandez Ordonez of the Spanish central bank highlighted that we must recognize the significance of unprecedented coordinated action led by G20 in avoiding another great depression and in view of the expected difficult years ahead, we must sustain the global approach despite domestic differences in policies.

Governor Atiur Rahman of the Bangladesh Bank underscored the point that international system should reorient itself to take into account the concerns of low-income countries. In this regard, he emphasized the role of discussions of India and other Asian countries in fora like ACU, SAARC finance, *etcetera.*

Managing director, Daw Tenzin of the Royal Monetary Authority of Bhutan emphasized the importance of reserves in case of small economies like Bhutan. He viewed that crisis gives an opportunity to redefine market discipline and consumption patterns. He noted that IMF should focus on the issues relevant to emerging market economies.

Dr. Subbarao, Governor, Reserve Bank of India was categorical in his remarks that International Monetary System was inadequate to prevent a major structural program that is global imbalances, which had to manifest in the form of some crisis or the other at some stage. He noted that even though India did not contribute to global imbalances it has to face the consequences of global consequences. So the critical question we need to pose now is where do we stand at the end of this conference and what are the key messages or findings that could shape the future policy actions in central banks.

In the first session, there was possibly no consensus on the role of monetary policy for directly doing anything about asset prices and no single view was expressed on whether financial stability could be an explicit mandate of monetary policy. LOLR and regulations are however generally seen as the potential instruments to safeguard financial stability though they are not enough.

The second session did not offer a clear direction to resolve the impossible trinity implying that countries have to adopt their own approach. In the third session, the need for macro-prudential regulation as an important if not sufficient next step was recognized. How financial innovations with appropriate precautions could contribute to high global growth, more particularly, in emerging market in developing countries was explained. LOLR cannot solve the insolvency problems was the key message from the fourth session. The debate on what could be an appropriate base cut rule for 21st century will continue. It was also viewed in this particular session that different dimensions of central bank independence may come under threat if high debt levels of the governments persist over protracted periods of time.

During the course of these deliberations there were a few specific issues highlighted by our Deputy Governors and Executive Directors in the context of impossible trinity dilemma, Deputy Governor, Mrs. Shyamala Gopinath viewed that besides capital flows and exchange rate, the impact of capital flows on asset prices should not be ignored. Deputy Governor, Mrs. Usha Thorat raised the issue as to whether capital controls are relevant for EMEs and whether post crisis stricter capital requirements could limit the role of credit and promoting growth and development in EMEs. Deputy Governor, Mr. K.C. Chakrabarty made two critical points of general relevance to all central banks whether LOLR provides a liquidity support or solvency support is difficult to know and there is no clear framework on that and despite the debates on exit, it is difficult to predict that what could be the actual exit path in any country.

This suggests that it will be an evolutionary process which has no precedence. Deputy Governor, Mr. Subir Gokarn noted that for growing and globalizing EMEs challenges for central banks will be there even without the crisis. Expansion of mandate has to be seen in relation to both accountability and capability. India has not adopted inflation targeting as yet despite the pre-crisis trend. Executive Director, Mr. Deepak Mohanty raised the issue as

to whether flexible inflation targeting could lack credibility. Executive director, Mr. H.R. Khan wondered whether India's SLR requirement implicitly lower the pressures on LOLR function.

Finally a key message from the entire conference possibly is that given known challenges despite lack of consensus on many critical issues, every central bank has to move in a direction of taking right steps that it may feel as appropriate without waiting for the global system to make a move. It would be possibly wrong however as noted by Mr. Roach to presume that best global practices are the sum of best national policies in a globalized world. Thus national policies cannot prevent a crisis alone despite being the most appropriate unless some of the global challenges are addressed collectively at the global level.

With this message at the back of mind let me now convey our sincere thanks and gratitude to our Governor, Dr. Duvvuri Subbarao who was intimately associated with the planning of this conference for the past six months. Amidst his preoccupation with both crisis management and recovery management, efforts he associated with every minute detail of planning of this particular major and memorable event. All of us in the Reserve Bank's Research Department Team owe a debt of gratitude and highly grateful to you sir for this wonderful opportunity given to us and for your invaluable presence and contribution to the past two days' proceedings.

Our senior Deputy Governors, Mrs. Shyamala Gopinath, Mrs. Usha Thorat, and Dr. K.C. Chakrabarty have always been with us guiding the process from the conception phase and at various stages during the conference, planning and execution process. From their rich and vast experience, we got very useful suggestion to smoothly conduct this mega affair. We are grateful to all the three Senior Deputy Governors. Our own Deputy Governor, Dr. Subir Gokarn has been the source of strength behind the organization of this conference who closely monitored the tying up of all arrangements and virtually every detail was meticulously planned by him. It is my pleasant task to thank and express our gratefulness to our Executive Director, Mr. Deepak Mohanty for very ably supervising the whole process. We thank him for his guidance and encouragement.

I would also like to thank all the contributors of papers for the rich collection of papers and high quality contributions. Not withstanding my unreasonable demands on them to quickly give the papers for circulation, most of them have given the papers within these stiff deadlines imposed on them. I apologize to all of them for being a pest and insist on timely submission. I will also fail in my duty if I do not put on record our deep appreciation for the four chairman Mr. Charlie Bean, Mr. Lars Svensson, Mr. Jamie Caruana, Mr. Michael Foot, and also the Co chairpersons and the discussants of various sessions for their invaluable contributions. It is this intellectual treasure left with us by the chairperson, lead speakers, and all other participants, which will keep the memories of this conference alive for a very longtime.

Several departments of the Reserve Bank of India collaborated and assisted at the various stages of the conduct of this event. In particular, Mr. Boria, Regional Director of Mumbai office, Mrs. Grace Koshi, Secretary, Mrs. Alpana Killawala, CGM, Department of Communications, banks, and medical officers have been of very great help to us. I want to place on record and our sincere gratitude to all of them.

Getting to this point in the program and to this stage of the conference has involved the commitment, collaboration, cooperation and goodwill of numerous individuals within and

outside of the Reserve Bank of India. We have been fortunate enough to be backed by a team of highly motivated and dedicated colleagues from the Research Department and other departments, who worked day and night and did their job exceedingly well. I bow my head to all of them in not only appreciation, but also expressing my sincere gratitude for helping me and the top management in organizing this conference with reasonable success. I must thank 10 young bubbling students from a local business school, who helped us at various stages.

Coming to others who made the conference possible, we owe special gratitude to the officials of Ministry of Home Affairs, Government of India, Government of Maharashtra, Mumbai Police Department for providing us mandatory clearances and providing us an invaluable and impregnable security cover. I must thank the anchor, Ms. Lobo, major service provider Mr. Neel Bang for arrangements at various stages. The Hotel Trident management and staff deserves our gratitude. I would like to thank the members of the media for evincing interest in the event and enthusiastically covering the same. We are very much indebted to several individuals, who may not be here, but who have made significant contribution though to the provision of the various services.

Finally, let me make a very special and specific thanks to Mr. Martin Wolf, who has come all the way and who is with us for the last two days and made the panel discussions an extremely lively event. Ladies and Gentlemen, as some learned men have said the great is the art of beginning, but greater is the art of ending. Let us make this end a new beginning. Let us agree to disperse today with an understanding that we will all meet again in some other forum to discuss possibly new concerns and to find out new solutions. In any case, we will be possibly have our next International Research Conference in 2012. Till we meet again, good bye to all of you and wish you all a pleasant and safe journey back home. We shall now draw the curtains on the conference and stand in honoring our national anthem.