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MONETARY POLICY AND FINANCIAL STABILITY: AN EMERGING MARKETS PERSPECTIVE

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PARTICIPANTS:

Moderator:

KEMAL DERVIS
Vice President and Director, Global Economy and Development
The Brookings Institution

Keynote Address:

JOSE de GREGORIO
Governor Central Bank of Chile

Panelists:

GUILLERMO CALVO
Professor of Economics, International and Public Affairs
Columbia University

MARVIN GOODFRIEND
Professor of Economics and Chairman, Gailliot Center for Public Policy
Carnegie Mellon University

ESWAR PRASAD
Senior Fellow, The Brookings Institution

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PROCEEDINGS

MR. DERVIS: The topic today, of course, is exactly that, the Monetary Policy and Financial Stability: An Emerging Markets Perspective.

We have with us Jose de Gregorio, who has been Governor of the Central Bank of Chile since December 2007, so just in time for the crisis you became governor. But, of course, there was no major crisis in Chile.

He was formerly Vice Governor from December 2003 and member of the Bank's board from June 2001. In 2000 and 2001, Mr. de Gregorio was a triple Minister acting as the Minister of the Combined Portfolios of Economy, Mining and Energy, and of President of the National Energy Commission. And, of course, many of us have been following how Chile has been managing it's couple of revenues in a very admirable way as an example to many others in terms of contracyclicality.

Among other things, he is also a professor at the University of Chile and the University of Catolica, and he has been working over at the IMF, the World Bank, and has been active in this field, academic field, for a long time.

He has a degree of civil engineering and a Masters degree of Engineering from the University of Chile. Then he obtained the Ph.D. in Economics in 1990 at M.I.T., so an engineer and an economist.

Guillermo Calvo is Professor of Economics, International and Public Affairs, and Director of the Program in Economic Policy

Management of Columbia University since January 2007. Anybody who's been active in developing economics, emerging market economics, knows, of course, Professor Calvo. He has been, was the 2001-2006 the chief economist of the Inter-American Development Bank, president of the Latin American and Caribbean Economic Association, 2000-2001, and President of the International Economic Association, 2005-2008. He graduated with a Ph.D. from Yale in 1974.

He has been teaching at Columbia; at Pennsylvania -- University of Pennsylvania, and University of Maryland, and he was also a senior research advisor in the Research Department of the IMF and has been advising many emerging market and developing economies.

We have Marvin Goodfriend, who is Professor of Economics and Chairman of The Gailliot Center for Public Policy at the Tepper School of Business, Carnegie Mellon University. He was Senior Vice President and Policy Advisor at the Federal Reserve Bank of Richmond from '93 to 2005 where he served as principal monetary policy advisor to the bank's president. In '84-'85 he served as the Senior Staff Economist for the President's Council of Economic Advisors at the White House. He was a Visiting Professor of Business Economics at the Graduate School of Business at the University of Chicago from '88 to '90.

And then, of course, we have Eswar Prasad, who is one of the creators of this book, who is with us here at Brookings in a nonresident status while he is teaching. Also, he is Tolani Senior Professor of Trade Policy at Cornell University and a Research Association at the National

Bureau of Economic Research. At Brookings, he holds the New Century Chair in International Economics. He was previously head of the Financial Studies Division and the China Division at the IMF.

So the topic couldn't be more timely. We've listened to Ben Bernanke recently at Brookings. We are hearing to the G-20 meeting in Pittsburgh. The United Nations high-level segment of the General Assembly is going to start next week, and then the annual meetings of the IMF and the World Bank in Istanbul.

So this is all happening almost exactly one year after the failure of Lehman Brothers and the panic that was everywhere last year. I remember, and we all remember, late September/October. It really was something that I think none of us in our lifetime had experienced.

The situation is quite different. There seems to be a recovery. How that will develop, how strong it will be, whether it will be U-shaped, V-shaped, W, we don't know. This is one of the great debates that's taking place throughout the world right now. But I do -- certainly can say that the monetary and fiscal policy response to what happened last year has been extraordinary.

I think, too, broadly speaking, it would be fair to say that it has worked, although the details, of course, can be debated. And the key question now, of course, is what lies ahead of us, particularly -- and this is going to be Governor de Gregorio's keynote this afternoon: What are the lessons for monetary policy? What are the interactions between monetary policy and financial regulation? And in particular, of course, our topic

today is, what does it all mean, not just for the advanced countries but for the emerging markets and developing countries?

Past financial reform, the future of monetary policy, the issue of asset prices and what the central banks should do about it; the interaction between financial regulation and macroeconomic policies, I think these are the key issues which we are going to have about this afternoon, and they will be, of course, with us, I'm sure in the next few months and years as we will see how the world emerges from this huge crisis that, however, one could probably say did not end up quite as bad as many of us feared last fall.

With that, I'd like to invite now the Governor of the Central Bank of Chile, Jose de Gregorio, to give his lecture. Thank you.

GOVERNOR de GREGORIO: Thank you very much. It is an honor and a pleasure to be here and to discuss issues that I think are extremely important for emerging markets in terms of what we learned, what has been our experience regarding the current crisis.

This is a written speech. I won't go through it because I wouldn't make it. Once I start thinking and writing, and then it was, well, I had just 20 minutes. So with even fast, it could take me a half hour, so, but it will be on the work page of Brookings, so it will take, t surmise.

I want to talk about issues of monetary policy and financial stability with particular attention on emerging markets, but now we are kind of similar also be capable to developed countries that they are having crises like emerging markets, so my remarks are also validating in terms

of developed countries.

Now, I want to first talk a bit about the origins of the crisis, and a discussion that's very relevant whether it was monetary policy or financial relation or financial problem. Then I talk, which is the natural concern of this whether the monetary policy should take care of asset price bubbles, and how we deal with asset price. But then I will move to something that I think that is much more pressing in terms of the emerging market, which is the issue of a till rate.

In general, when we tend to have a bubble, it's not a bubble in any particular asset; it's a bubble on overall assets, so the exchange rate appreciates, and that's what makes the distortions. And I will discuss how to deal with that. Then I will talk a bit about something's that's an extremely interesting experience before the crisis which was the run-up of inflation in all emerging markets, and how -- I'll talk about Chile more in particular in that case, and then I'll make some completing remarks.

Let me just start with the issue, was it monetary policy or was financial fragility the main responsibility for the crisis. And the argument generally blaming monetary policy said that it was very low interest rate combined with large (inaudible) macroeconomic surpluses in emerging economies, particularly Asia and all those important countries. There was a boundless liquidity, there was such "forgils" (?), and this create an excessive increase in asset prices. This is what we called a bubble.

This was particularly important in housing market. So the first issue about this is that we may have an increase in asset prices, a very

sharp increase in asset prices, but they don't need to end with a financial crisis like this one. So we have to look more carefully at financial fragility, and, in particular, we can also look around the world what's happened. They say it could be that monetary policy in some point, it goes beyond in terms of what a Taylor rule would say in terms of expansionary policy. But again, when you have to adjust the economy because you have high inflation, at the end, you may end up with a recession, or with some slowdown, but not the characteristic of the crisis that we're facing now.

And the best way to think of this is just to look at other countries in the maybe back (inaudible) of the tables that's posted, the figures. But there are many countries that have monetary policies similar to that, to the one of the U.S., you know, with a sharp decline in interest rate after the burst of the high-tech bubble, and without having any bubble. And there are two cases in the Western Hemisphere, Canada and Chile. Both countries have exactly -- oh, not exactly, but very similar monetary policy, a very synchronized reduction of interest rate, and we didn't have a bubble. We didn't have a bubble in the housing market, and we didn't have a financial collapse.

Moreover, there are countries that had the bubble in the -- apparently, there is no way for proof, but it's can't be proved -- there are countries that have a bubble in the housing market, but they didn't have the financial collapse. One case is Australia. The other case is Spain that they were able to resist the financial meltdown, but despite they may have recession, some world may have recession. But it is without having a

financial turmoil.

So, in my view -- and this we have a long discussion during lunch -- what in my view may be a problem with monetary policy, worst-day way to address with monetary policy asset price bubbles in the U.S., the so-called green (inaudible), which started in October, '87, Black Monday, that after the collapse of stock prices there was a huge expansion of monetary policy. Then it came back with LPCM, then again with high-tech bubble. There is an issue of our timing that we had a discussion, and then it came with the current crisis.

So let me first say this is not a policy derived for any inflation-targeting framework, because the reduction of interest rates after a sharp decline in asset prices, it's much more rationalized to do a financial stability argument. So you say, well, now there's a risk in financial stability, risk management was called in the U.S., so we have to reduce interest rates to provide enough liquidity so markets can work properly.

So there was a form of implicit insurance, and this implicit insurance in a way create the incentives for high risk-taking in the understanding that there was a one-side bet. This one-sided bet was not completely one-sided, but at least the upturn was much better than the downturn. So this is what I think that may be a problem that we could argue with the way to conduct monetary policy, but what's much more related not to what an inflation-targeting framework would suggest, but much more with it regarding to financial stability.

We had many of these examples. In emerging markets, it

usually happens with an exchange rate. When you start using monetary policy to adjust an exchange rate or some -- this creates some distortions in the workings, and I will talk more about this later on, on the financial market.

So I think the first lesson for the conduct of monetary policy is to avoid providing insurance speculators which create enormous, more a house of problems than anything that this is.

But this leads me to a next question which is: What's the role of asset prices in an inflation-targeting framework? And those that would say that the problem was with monetary policy, the conclusion would be, so let's put the interest -- the house prices or asset prices in the Taylor rule. Let's react with monetary policy to asset prices -- asset prices be joined their impact of inflation. The discussion is whatever affects inflation, it should be on your reactional function for in terms of monetary policy, reactional function, whatever affects inflation.

But the argument would say no. Now we have to take care of soft bubbles with monetary policy, so what we need to do is to put the asset price in the reactional monetary policy even if there is no fear of inflation and there is no problems with inflation. But asset prices are going up too much, we have to increase interest rates.

In my bill there are three reasons why this is not a reasonable strategy, and why monetary policy in general should not react to asset prices beyond their impact on projected inflation. First it is not clear that an increase in interest rate will be capable of stopping an increase in asset

prices. Where they are uncertain about how much would have had to increase interest rate in the last couple of years to brace the housing market, there is really no -- it is not completely clear.

Second, what matters in terms of asset price bubble is to safeguard financial stability. So we may have the contradiction that increasing a low interest rate to fight a bubble may create financial vulnerability because of high interest rate.

And, finally, I think that in an inflation-targeted regime or in monetary policy being conducted for the purpose of price stability, any moment a monetary policy that is inconsistent with price stability may undermine credibility of monetary policy, and we may lost the ability of having a stable anchor which is inflation expectations, careered with objectives of monetary policy It will start moving (inaudible) for some other reasons we may lost the anchor of monetary policy.

So these, I think, are the three reasons why we shouldn't try to take into account asset prices into the decision of monetary policy be joined as affecting pricing .

There is another reason -- which I do not think is a reason -- but is the reason that we didn't know -- we do not know when there's a bubble. And didn't policymakers have -- we do not know anything, so policymakers need to be extremely --that's when it is very important, and sometimes which you may find that there's a bubble, and there may not be a bubble, but that's in prevent you from taking some action, which should be outside the monetary policy. This is a thing that monetary policy

shouldn't be with asset price bubbles. This does not mean at all that monetary policy -- that central banks have nothing to do with bubbles. I think that central banks have to worry about financial stability, but not doing it through monetary policy but much more through macro (inaudible). So I'll make a couple of comments towards the end on this.

(Inaudible) -- what is important in emerging markets, which is particularly important is the management of exchange rate.. In any inflation-targeting regime where the policy instrument is the interest rate, it must operate in the context of a flexible interest rate. This is about the problem of a possible trinity . We cannot manage an exchange rate, interest rate, with an open capital account. So again, adding an exchange rate objective, we can see capacity to control the interest rate, which affects the ability to meet the inflation target.

Now, this does not mean the exchange rate have no effect at all in monetary policy. Like the previous discussion on asset prices, there is a more direct implication which is that interest rate -- I'm sorry, exchange rates have an effect on monetary policy because exchange rates have an effect on inflation. So as long as, for example, what we have had in practice in Chile, some persistent appreciation of the peso, that creates this inflationary pesos, and that's allowed for a relaxation of monetary policy, loosening of monetary policy. The loosening of monetary policy put an outward pressure, or a depreciation pressure, you know, on the exchange rate.

So, in a way, monetary policy works and is related to the

exchange rates in a leaning against the wind. So when they said appreciation, you may lose some monetary policy, this is persistent; when they said depreciation, you may take the monetary policy offsetting the movements of the exchange rate.

Now, one must recognize and that there is a lot of areas that they pass through from exchange rate to inflation is extremely small now. It's extremely small, so we shouldn't think that the effect of moving dangerously, or the effect of exchange rates on inflation and then the effects on inflation, and the moment of the interest rate will have strong effect on exchange rates.

And so this is, when it comes that inflation of policymakers to affect and to keep currency relatively depreciated, an understatement.

Now, I think that there is a big risk, and managing the exchange rate is, apart from hardly visible in the medium term, is very risky because this created a spiral of exchange rate rigidity. What's happening in emerging markets, and we have had the same experience in Chile, is that when you have a less flexible exchange rate, the pass through from exchange rate to inflation increases. Why? Because now is seems that the exchange rate is relatively fixed or stable. It works as an anchor for inflation.

Then this feeds back on the financial system because now first corporate sector and banks, they find that the exchange rate will be stable, so this may create some of mismatches. The more exchange rate rigidity, authorities will have more incentives to keep the exchange rate stable

because now any moment the exchange rate may create financial fragility or may create an increasing in inflation, or moments of inflation, so this creates further commitment to its stability. So this is what I would call a spiral towards exchange rate rigidity.

So policymakers, they try to establish once, and then can't create incentives on the fears to avoid and destruct a fear of floating, you know, that Calvo wrote some years ago that there is this tendency to increase rigidity which increases currency mismatches, and is a system more prone to exchange rate misalignment.

So I think that the first -- and policymakers and emerging market will have learned that in order to avoid misalignment -- the first way to avoid it is with exchange rate flexibility.

Now, this does not mean that we should never look at intervention or not look at the effect of exchange rates be joined , that that is the effect of inflation. Exchange rates are very important determinant of resource allocation, especially in small, open economies. Therefore, any excessive deviation from the mentors make rate distortions; so but I think that be joined a limit against the wind, as I just mentioned, we must have the option to intervene in the foreign exchange market.

Now, but this intervention, in order to avoid this spiral, it really has to be very clear, and I thin, that Ii have at least three principles that you -- we have done it. We have a flexible, in Chile, a flexible exchange rate within since the year 2000. We have intervened in three occasions, but mostly following these principles.

The first one, it must be consistent with inflation target in order for the intervention not to jeopardize the creative monetary policy. It won't always be like that, but we have to make the more consistent possible with inflation target.

Second, and to save that monetary policy independence once intervention is announced, it must be implemented mechanically. You shouldn't look for a specific value of the exchange rate because that's what created the problems for monetary policy, and you lose control of monetary policy. So this, they allow to keep a monetary policy independence without creating incentives for a speculation against the Central Bank.

This is the way we have done it. We did it in April 2008. We announced that we would intervene for eight months accumulating $1 billion a month, $50 million a day, between 10 and 11. So between 10 and 11, the Central Bank went about $50 million, which suspended before close to the Lehman , and I'll talk about that.

Finally, it is very important to have a strong fiscal position because intervention has cost, has cost, official cost, and it's very important. We have done this in Chile on three occasions. Always we have tried to follow -- we have followed these principles. It's important that also this does not create a distortions in financial system that may rule out the possibility of large fluctuations of exchange rate, just the figure that I had feared that I -- one shows -- it's in the paper.

We have had in April last year, when we start intervening just to

remain the numbers. We start intervening with a dollar at 430 pesos, big dollar, 430 was where we start intervening. It depreciate a little bit. It went up to 500-550, and then after Lehman and all the turmoil in the world, the exchange rate went up to 680. So it depreciated more than 50 percent, and then fell to 550 without creating not much problems in terms of inflation and not much problems in terms of financial stability.

So I really thing that this is a very important think in emerging markets, which is to learn to live with high exchange rates volatility because that's what sends you to the adjustment instead of having it and banned adjustment to the real side, which is quantities and output.

Now Asia, an Asian (inaudible), this is a discussion that has got to at least hypothetical, a discussion regarding exchange rates in emerging markets. And this is what, repeating the experience of the early '90s. What we saw in the early '90s was a fear of very large capital inflows to emerging markets. We cannot disregard that after the current crisis is over -- according to the speech on Tuesday, we are getting close -- last Tuesday -- so if there will be a re-emergence of capital inflows to an emerging economy.

So we cannot rule out that in the next couple of years, the set forgil will leap to capital inflows to emerging market. Why? Because emerging market have proved to be very resilient economies, very strong through in this crisis compared to industrial countries, and there are a lot of profit-investing opportunities. So there may be we cannot rule out that there will be -- that that could be a strong capital inflows to emerging

markets.

Now, what (inaudible) is this about, and what's our bubble? Our bubble is an increase, as I said, in all of our domestic assets. How it make all Chilean assets to be more expensive and (inaudible) just by appreciating the exchange rates. So the peso become stronger, stronger, stronger, and we may have, in common currency terms, very high price of (inaudible). So this is the kind of problems that we face.

I have first to make a clarification. The problem is how to manage capital inflows; it's not how to avoid capital inflows, because capital inflows to capital-scarce economies are a good thing. And we know that if you can manage them and they don't create destruction, they are a very good thing, and they can help you to grow and prosper. So this is very important.

Now, even if we in the (inaudible), just to illustrate how difficult is the problem in emerging markets compared to developed countries, is that even we could accept, we could say, okay, some things that I do not agree, but we could say, if you have a bubble, tie it in monetary policy. So this weld be the part of the profession agreement today in saying how to live with bubbles. Tie it to monetary policy when there is a bubble.

In the case of our countries, it's much more complicated because if we take the monetary policy, what are we doing? Increase the interest rate for asseting pesos. So there is even more incentives to bring capital inflows. So we fight capital inflows increasing interest rates, we create more capital inflows and more pesos on our exchange rate, more pesos

on the dollar. So it's really a very perverse dynamics.

So we have high interest, high interest rate differentials. There is capital inflows, then policymakers try to avoid depreciation, which is generally thought to be transitory, so what -- this is the story of Chile and many other countries in the '90s -- so capital inflows, high interest rate, and you say, well, I want your both capital inflows. We did capital controls. I couldn't afford the appreciation for awhile, but after a while, after a year, you gave up, and you say, I cannot tolerate it, we have to make an adjustment in the exchange rate.

So what's happened is that investors that came to our country, and they said, well, there is good, profitable volatilities, they did it even better, because they enter when the currency was cheap, and then they leave when the currency was expensive. And they not only benefit from the exchange rate, the interest rate differential, but also from this appreciation that happens from time to time.

So this was good for awhile. It may be accumulated gradually or sometimes is extended by a sudden stop. So there is the problem that monetary policy can induce an excess appreciation, can induce a bubble. So the issue -- and this is the big question -- and I said this in another conference that I didn't gave some of the what I think may be a part of the building blocks of the answer -- what to do in this case? What to do if in the next couple of years, all Latin America and Asia started being flooded with capital inflows? So how we can avoid that? And how we can avoid this perverse dynamics that is encouraged by monetary policy?

First, the first way to prevent this speculation against authority of defending a courtesy transitorily is to have a flexible exchange rate to let the appreciation to happen right now instead of trying to postpone it and creating this window of opportunity for have it . So I think that this is the first way to do it.

Now, you will tell me, and I -- you can tell that this is a bit -- the appreciation could be extremely excessive, so you cannot tolerate, so, well, that's come the rest of the package. An inflation commitment also -- also kills, because if there is massive capital inflows, and this depreciate the currency, and this create this inflation, there will be a closing of the interest rate differential. So it may help also an inflation and an inflation commitment.

Now, despite having all of these, you can tell me despite all of these, your country is having an excessive appreciation -- by "excessive" meaning some ideal fundamentals -- you say, well, you are too much away from the -- this is having effects on resource allocation; this retarding growth; this is having a problem with the export sectors, and you, by not fighting this appreciation, you are creating distortions and introducing worse losses .

So what we would do becomes what I said just before. We can intervene. Still if you think that this is excessive, you can intervene. In a way as I proposed before, with a very mechanical rule, without commitment on exchange rate, just saying if you had a strong fiscal position, you say we will accumulate reserves for awhile for absorb this

extreme inflows and to absorb this excessive appreciation, and if there is a bubble this may help to break the bubble and to stabilize exchange.

So this is a -- this is a multibated proposal and it's the use of capital controls. What we could do, unfortunately, the areas unfortunate for those that propose it, the areas that are affecting this is very illusive. In the case of Chile that we have capital, capital controls, we have capital controls there is no areas that they had a strong effect. The only paper that has some effect, fundamental effect of 2 percent, the whole capital controls about it is 2 percent appreciation, which is not a big deal. We are talking about real (inaudible).

There is another thing that is important to bear in mind with the Chilean economy: In the Chilean economy, during the times of the most appreciated exchange rate of the '90s, in the period of capital inflows which was '97, in '97 we accumulate about 10 percent of GDP of reserves. And what was said anything, we had the tightest capital controls on the whole period, and we were unable to avoid the most appreciated currency.

In my view, to a large extent, it was part of a misalignment between foreign interest rates and domestic interest rate. Domestic interest rate was extremely high to control expenditure with inflation coming down, and that created strong incentives for capital inflows. Because what was the exchange rate policy by that time and exchange rate ban, so there was an exchange rate ban, (inaudible) accumulation, capital controls, and the most appreciated exchange rate.

So I'm very skeptical about the effectiveness of capital controls.

I think that you have to do prevention
regulation to avoid currency mismatches and all the problems that we have when there is capital inflows. But I do not think that that should be -- that capital inflows can make a big difference.

Now, there is -- and I think that this is important -- no country that has suffered these problems with capital inflows had an inflation target regime with flexible exchange rates. The story of the '90s is that a lot of the same happened in Asia before the Asian crisis. A lot of exchange rate rigidity and monetary policy frameworks much more different from what would be one conducted to price stability.

Let me go to my final point before concluding, which is about the problems with inflation. And this is -- I will forget now about the exchange rate and all of this or I can make (inaudible). But the (inaudible) of inflation, which is extremely -- and in the case of Chile it has been extremely impressive, and we have to think much more about
-- and I think that the inflation target was even worse -- but much more about how we focused and how we inflationed.

Chile was one of the countries where inflation, in the run up of commodities '07-'08, Chile was one of the countries with the highest increase in inflation. We had an inflation rate in December '06 of 2.6 percent, and went up in, like, 20 months to October '08 to 9.9 percent. Our inflation target is 3 percent, so plus or minus 1 percent. So it went from the most extreme in a period of 18, 20 months to 9.9.

And then the peak was in October last year, and then it came the

world crisis, and everybody would say, oh, this Central Bank lose complete control, we are going now to the (inaudible) inflation wherever it goes. This is 2009, but they say we're going very high inflation, and then when it came to declining in commodity prices, world recession, inflation has been negative on a monthly basis for most of this year, and the current inflation on a 12-month basis is minus -1 percent. So inflation in 12 months came down in almost 11 percentage points. So Chile was the country that had the highest increasing inflation and the largest declining inflation.

And the largest declining inflation, what allows a future expansion of monetary policy, because we see now, as we were tightening at the beginning, we were tightening not a month ago, we said this is a relative price adjustment, so we have to await. And I wanted second round effects, so we end up with an interest rate of 8.25 in October last year. We start capping rate, and now we're at a rate of 0.5, one of the most aggressive in emerging markets and in the world monetary loosening, because inflation was coming down by itself.

Now, what accounts for the increasing prices, they (inaudible) rising inflation, and this may be we have to think more about this and get to the conclusion. But this (inaudible) got Chile's (inaudible) open, free market economy. It has very low distortions in the price-setting mechanism. There are no agreements with supermarkets to keep some prices, some prices fixed while commodities are going up. Food prices in many countries have that. They stop all stabilization fund to smooth the

(inaudible), but all prices went up, they shot food prices. There are no distortions in the agriculture sector, which is the reason why you do -- food prices were not that much help because they have a closed market for agriculture (inaudible).

So they open economies so this transmitted very (inaudible).

Now, the problem and concern is that this -- this has started to go through all the paces. So we start first with an increasing CPI, but in the component of food and energy, but then it contaminated the whole its price. Now what's really the striking thing is that then the collapse was extremely, extremely sharp.

Now, what the -- so then we started looking at the explanations. Why it went up so -- so rapid, you may say, because the economy was growing a lot, so if we think about the Phillips goal, we say what's going on? Is that output is growing about -- potential output too far, and that's creating an inflationary basis. The economy was growing at about 5 percent, it was not a big deal. So that's not a very -- it's not a very strong reason.

The exchange rate was appreciating for awhile, and was based still due in the period of the run-up of inflation. And then when inflation came down, you can say, well, you are hiding a (inaudible) recession. But we are growing -- at this year we will grow between minus a half and minus -2 percent, which is not a big deal compared to many other countries. So if we compare -- if we compare the declining -- the increasing inflation with the rate of growth, Chile has much increased, a

much higher increasing inflation than many other countries.

And now the contrary happens. Chile has had one of the largest declining inflation, even after you control for the opposite. It's a -- I think that it's -- there is a lot of work to do and to understand inflation dynamics, perhaps specific change, perhaps the dynamics inflation is nonlinear. One thing that was (inaudible) basic in Chile and was important is that our goods was not growing that fast, but what was growing very fast was a (inaudible) demand, was domestic demand, because there was a lot of import duty that was not all of this was helpful.

But the matter was growing a lot, and this may have helped to increase. We haven't found the evidence, but this (inaudible), this may have helped to increase the path through from foreign prices to domestic prices because demand for those goods is blooming. So this may be, and we may think more about it. But from a policy point of view, what this declining inflation allow us was to have a very strong monetary policy expansion. The interest rate went in three months, went down by 600 basis points from January to March, and then it came down 775. And we're complimenting this monetary policy also with no conventional measures, which is basically to provide liquidity at six months and not at the daily basis, but at six months at the monetary policy rate to flatten the whole curve.

So this is what is -- I think that it's important to think that -- I think that the inflation target has helped, has helped to have a very strong contracyclical policy.

Let me just conclude by coming back to some remarks in financial (inaudible). Central banks need to oversee price stability and financial stability. I know that there is a discussion whether central banks should care or not about financial stability. In more countries, there is in some form laws ask central banks to take care about price stability and financial stability. But to pursue two objectives with one instrument, the interest rate, is not enough. So that's why they think that it's important that for financial stability what's important is for to have means to an all-day discussion about macropotential regulation margins, and many buffers in terms in the financial system to avoid financial disability .

Now, we have to realize that this objective may at some point may collide. You may want to increase interest rate because you have high inflation, but you may have a financial crisis, and you have to provide liquidity in reducing the interest rate . This is an exception, and exceptions can be addressed in an exceptional way, and I think that we can have escape clauses, and there may be.

I think that overall, regarding price stability, I think that conducting monetary policy within an inflation-targeting regime is appropriate, and recent experience showed that it may provide ample room for expansionary policy.

Let me just restate one thing that is important when we look at this crisis. When we look at this crisis, we tend to see at the failures in the context with the crisis. But what we have to realize is that when we look around the world, we find that many countries have not had this crisis, and

many countries that just to have a crisis when there was a problem in developed countries like in all emerging markets, emerging markets for the first time, I think, in history, even if we leave aside the successful big countries, a major (inaudible) Latin America is doing impressively better in terms of international standard, just in numbers that I have in mind, the figures that I have in mind for the Chilean economy.

For the '82 world recession and for (inaudible) stabilization, the Chilean economy grew 20 percentage points less than the world in that crisis. We have a fixed exchange rate regime, we have a financial crisis.

In '97 with the Asian crisis, we have 4 percentage points less growth than the world. This year (inaudible) many countries will have a growth very similar to what would be world growth, even in many cases better. And that is, I think, the result of being very keen on having price stability, macro -- general macroeconomic stability, fiscal stability, and financial stability, and (inaudible) relation. I think that that combination should work. And it has been extremely important for the relative success of emerging markets.

Thank you.

MR. DERVIS: Thank you very much.

(Applause)

MR. DERVIS: Thank you. As the panelists are being mic'ed, if we just thank Governor de Gregorio for this (inaudible) and overview really of what the challenges for a monetary policy are at this point in history, and really the very successful way that Chile has managed the crisis.

I do believe that -- my own personal opinion, of course -- is that the emerging markets are very diverse. And when you look at the world as a whole -- you ended your speech (inaudible) comparing Chilean growth to world average growth. I guess if we look at the overall developing world, emerging market world, we'll see that Eastern Europe has been a disaster in terms of growth rates much, much lower than the world average.

Latin America, of course, there is diversity in that Latin America, but on the whole maybe one can say growth rate is not too far, but, you know, from the overall -- I'm talking of 2009 -- and then, of course, one looks at Asia, and particularly the larger Asian countries, and one has growth that is quite a bit more rapid. The smaller countries are not quite in the same (inaudible).

I'm just throwing that out to give a flavor of the diversity of the experience we've had this year. And immediately turning it over to Guillermo Calvo.

PROFESSOR CALVO: Thank you very much. Thank you for the invitation. The paper that -- the background paper for the Governor's presentation is really very interesting, and I find myself in agreement with much of what's there. There was also a (inaudible) a few points which I think are very central, sort of dovetail with comments that Kemal made that countries are different.

In the first place, I fully agree with the points that we are looking at the financial crisis. Everybody agrees about that, but it's interesting to

see that once we agree, a few minutes later we start to (inaudible) about something else, increasing government expenditure, for example. So it could be the solution, but why don't we keep on looking at the financial things, and I think that's important to do.

In the new paper I'm writing, the title is "Looking at Financial Crisis in the Eye: Keep on Looking, Don't Get Distracted."

Now, why is that important? I think in terms of a subprime well exposed, everything seems to be very clear. But when you compare the subprime with its outcome, then you wonder why (inaudible) its outcome which was a big meltdown, too, have such my consequences. I'm not going to talk about that, specifically. My conjecture is that it has a lot to do, once again, on the China, so the contagion element could magnify a lot this shocks that start in the financial sector, and then grow disproportionately in some cases and in some other cases they don't.

So the comment that I wanted to make related to what Kemal said is about emerging market is that when you look around. and based on our research, empirical research, we have found that there's a big difference, depending on the financial vulnerability of emerging markets. And one key vulnerability, empirically, happens to be a liability realization. There are debts and current account deficits. Those are the two variables. So when you look at Eastern Europe, you see both of them playing a very big role.

What Latin America did for most of the time was to have current account surpluses and they de-dollarized -- either the market did it or, as

in the case of Argentina, it was defactored. But in any case, when you compute the probability from our model, you see quite clearly there's the probabilities of a crisis in Eastern Europe jumped up whereas in Latin America it contracted. And that's exactly what you see.

So that's a lesson. I think that's why I keep in the (inaudible) on financial issues.

Now, the question is, what can monetary policy do in this country? And I was looking at some very interesting figure in the paper. If you don't have the paper, you won't be able to see it, but this was three lines which are very highly correlated interest rates. These are the policy interest rates of the U.S., Chile, and Canada. So I thought it's saying, well, what do we have in the world? We have fixers, and the fixers fix to the some exchange rate, and we have floaters, and floaters six to some interest rate. So it's very hard to stay away from the U.S. interest rate. so you fix at the end of the day.

Why is that important? Because if you fix, you are trying to find an anchor outside the system. So for -- a generate fixture is a headache that the dollar -- is the dollar/euro is generate, is very volatile. So that's a problem that major markets, there is little they can do. Maybe they can use a basket, but the basket will be changing all the time because it depends on things that are not stable all the time. So that's one problem that the fixers are going to find, really, looking forward.

Why am I concerned? Because I think that -- I guess that the era of the peziot (inaudible) relation is over for awhile. There is going to be a

lot of policy uncertainty; that the center of the financial world we hope will go back to normal, but in the process there could be a lot of volatility. So fix to generate, you're going to have a problem there.

If the you fix it to the interest rate, then you're going to have a problem on two fronts: In the first place because we don't know whether there is going to go looking forward if inflation flares up, and it's going to be a tension between the financial sector and inflation. And we don't know what this threat is going to do, and so it will be very hard to be dogmatic about it. So that, in principle, at least in the minds of the agents living in emerging markets, that's an uncertainty which is very hard to dismiss. So there could be volatility coming from the center.

And there could also be volatility coming from the fact that we are emerging from a financial crisis, and then the risk factors in countries can also be volatile; and they have been more volatile, actually, even though emerging markets have been lucky in that the spreads have not gone up sharply as in 1998. Still the volatility of the spreads has increased. And, looking forward, that could be a problem.

So for emerging markets, looking forward I think monetary policy in particular is going to be more tricky. And the question is what to do. I have the feeling if you look at monetary theory, you don't feel very comfortable about what the Central Bank can do. Basic monetary theory tells you that you need credibility. Without credibility, monetary policy could become quite ineffective.

So we've been through a period of great moderation, so pegging

to the North say it was a good idea and gave you stability. If that fails, then monetary policy, as such, could have a harder time, and so there may be a need of additional anchors, of course, mutually consistent. It would be crazy to choose different anchors that are not mutually consistent.

But in that night, I see facilities like that IMF new facility, the liquidity facility as a good initiative because it gives further support. You have countries to separate monetary policy from financial policy because it didn't become strictly if you had to deal with two, and going (inaudible) I alluded to that at some time they both collide, the two objectives. So it could be, if (inaudible) so that sort of makes it easier.

International research also seemed to have played a good positive role in the recent crisis, and, of course, the G-78 or G-20 can find ways of stabilizing T-generates like the U.S., and the euro, that would be very, very helpful, too.

Now, let me finish with some comments on capital interest. I hope that the government is right that now we learn how to deal with capital inflows, but I think since 1998 there has been capital outflows from emerging markets. The credit accounts have trans from the negative to positive.

So we've lived through a period where the countries were not attacked by capital inflows like the beginning of the '90s. So if there is an episode of capital inflows, it would look more like 2007 and the first quarter of 2008. And that created all kinds of difficulties because, as the Governor

indicated, there was a flare up of inflation, appreciation of the (inaudible) rate, stuff that got turned around very quickly after Lehman, but because of external factors.

But now we seem to be going back to a period of capital influence because there is really the capitaling, and we now go if we really are recovering and recovering in a good way, not going back to business as usual but perhaps where government with the goose. Then there will be more funds going into emerging markets, and we are going to be facing something that we saw in the early 1990s.

The question is, I don't have an answer for that, but I just wanted to say that I'm not sure that we are fully prepared for that. We had to wait a very lot to the implications of this. Personally, I dislike -- as in the paper it's expressed -- I dislike controls on capital inflows because in the first place, they are ineffective in most cases, and create additional distortions, but I would be in favor of contracyclical financial regulation, for example.

The second issue is the booming commodity prices and what to do about that. I, personally, think that we have to live with higher inflation if the boom is going to be transitory, changing relative prices.

And, finally, let me end with a comment on monetary policy and bubbles, and whether monetary policy should do something about it. In principle, if I read the textbook, the conclusion is, no, monetary policy should ignore bubbles because monetary policy is a policy that has, in a sense, is there are sticky prices. With float (inaudible) and floating price -- definitely flexible prices, there is no real room for monetary policy. So

that's focused on sticky prices and commodity prices as a least sticky foreign prices.

So, for example, when we talk about bubbles, housing prices are not sticky in principle. There's a market there and very clear. So from that point of view, very theoretical, if you wish, point of view, we shouldn't worry about a bubble.

However, my concern is that bubbles could undermine the credibility of monetary policy, the bubble itself. Maybe not in the green's time United States, but in emerging markets where we have seen that it's a very general experience that real interest rate appreciate, that's a bubble, and they appreciate a lot. Maybe we can avoid that by having a floating interest rate, yes.

But what I'm saying is that that's an additional reason for us not to ignore bubbles. Whether to fight bubbles with monetary policy, I agree with the Governor to agree that's as lost cause. Maybe we should be more active through regulation and stuff like that.

Thank you.

MR. DERVIS: Thank you very much Guillermo.

Now I turn this over to Marvin.

PROFESSOR GOODFRIEND: Well, thanks for inviting me, and I'd like to start off by reiterating something that has been said this afternoon. Chile spent a long time building institutions in order to establish credibility for the exchange rate regime, and I think we've seen the benefit of that in stabilizing the country against the current credit turmoil. I don't

think there's any shortcut for doing that.

The United States has to go back and think about rebuilding its institutional relationships between the Federal Reserve and the Treasury. That's the hard work that has to be done, and its proven its worth, it seems to me, and I'm very interested to see the Governor's speech about how that's happened this year. I wasn't aware of that. In Eastern Europe where outcomes haven't been so good, it's probably, in my opinion, because they haven't had enough time to build institutional strengths against these kinds of things. So I would like to begin by emphasizing that.

Then I would also like to say something that never gets mentioned in these discussions. The great moderation was a period in which the center countries, United States, in particular, succeeded in control, bringing inflation under control. In doing so, as many of us thought would happen, we extended the life, the average life of business expansions in the United States.

We had two of the longest business expansions in the United States in the '80s and '90s, in part because we stabilized prices, at least in my view, and prior to that we had what we used to call "go and stop" or "stop and go" monetary policy where inflation would get out of control, and the Central Bank, the Federal Reserve and other center banks around the world at the time in the great inflation period had to bring expansions to an end prematurely, so to speak, to fight inflation which got out of control.

Well, one of the consequences of this great moderation period

was expanded to be expected, which is business expansions would lengthen, which they have, but another implication is that the life expectancy of business expansion has grown.

Now, the reason I want to bring this up is I want to make the analogy to the human life expectancy. You know, medical science has learned to cure diseases that used to kill us at age 40. We live till 80. We're dying of things that were unheard of until we lived longer. I think a lot of what's happening a round the world is that market business expansions, they're longer, they leave a lot more room to run for private markets, for asset prices to kind of do their thing, and if inflation remains under control, it's more apt to be that business expansions are brought to an end by asset markets getting it wrong.

It strikes me that if you're going to think about this, you should at least link the relationship between dealing with inflation ex-ante and asset price problem explosive.

I also want to say, unfortunately, we also are in a period where technology is integrating asset markets around the world, which means that decision-makers are getting information, the same information in real time all around the world. We're educated more or less in the same schools, so the decision-makers are getting the same information. They're thinking about it the same way, and the way I like to put it is we're getting much more highly correlated results in financial markets around the world. And I was using this analogy at lunch: It's like we're on a boat, and now everybody's leaning to one side of the boat at the same time and then

leaning to the other side of the boat at the same time. I like this kind of poetry.

What that means is we should expect more volatility in asset markets around the world, couple with my first point that business expansions are longer with more scope for volatility to be generated. So these things are a natural outcome of inflation-targeting. And while inflation-targeting can be made to work by building institutions, I think there's a much greater premium on building institutions around the world to deal with these problems that I think are to be expected by stabilizing inflation.

I want to say a couple more things, and then I'll quit. About the ability of central banks to actually deal with asset prices, I was at the Open Market Committee in the late 1990s and remember the committee watching equity prices in the United States move up through the late 1990s. And every meeting from 1996 all the way up to, say, the 2000 March, when the equity bubble burst. People would say, "Well, our prices are unsustainably high." Go around the table and people say, "I don't know. Maybe, maybe not."

But I remember the June 1999 meeting after asset prices had gone up enormously in the first half of 1999, everybody looked at each other and said, "Yeah, asset prices are clearly unsustainable. Thee is no way this is going to continue for much longer." And then I remember -- and this was not spoken, so you won't read this in the transcript -- people looking at each other and saying what do we do now? At least that's what

occurred to me in my head when I saw those people.

The point is that once you realize or agree that asset prices are too high, that's not the time to raise interest rates aggressively because you've got a very fragile economy on your hand, and before there's agreement that asset prices are too high, well, there's not enough agreement to do anything unusual either.

My point is there's, in practice, very, very little chance of a window of opportunity for interstate policy to act against these extreme asset price fluctuations in practice. And I think that unless you've been at these meetings, meeting after meeting after meeting, you don't really realize how small that window of opportunity is.

Well, I'd like to hold the stage for a little bit more, but I probably should give it to Eswar.

MR. DERVIS: You make some very, very interesting points, Marvin. It's both analogies quite fascinating I think.

And now I turn to Eswar, and, Eswar, maybe you'll bring in a little bit of (inaudible) analysis to the overall aspect .

MR. PRASAD: Yes, as Dr. Dervis pointed out, emerging markets are very different, and Asia brings a different set of issues to the table. And, of course, that is a stark contrast between the economies in Asia and those in Latin America, at least on average, because Latin American economies, including Chile, have become de facto much more open to capital flows, but also more in de jure terms the capital accounts are much more open. And, in addition, financial development has

progressed a lot further, have been fairly significant episodes of financial liberalization, and despite crises that fit over times the process of liberalization has, in fact, continued.

Asian, particularly the two economies that everybody tends to focus on China and India, are in a different spot. De jure, they have a lot more controls on capital flows, both in and out, and, in addition, the financial markets and all that will develop. So these three economies, of course, have managed to weather the crisis fairly well, and the debate there is largely about what monetary policy should be looking at.

And here things get very interesting when one thinks about the nature of central banks in these economies and what the objectives should be. Ultimately, the monetary policymaker and the regulators together seem to be responsible in these countries for delivering low inflation, high growth, and macroeconomic stability, and financial stability. So this is a lot in itself, but in addition in economies like China in particular, and to a lesser extent in India, there is also the notion of trying to manage the exchange rate.

So in these economies the question is whether inflation-targeting works well. And Asian policymakers often defer to the case of Thailand, which is seen as largely following the Latin American example of largely opening up its capital account, devotedly following an inflation-targeting regime, and it was slammed against the wall in 2006 and 2007 when there were large inflation (inaudible) in the economy; when there were large capital inflows, and, of course, they raised interest rates, as

they should have, under the inflation-targeting regime, which brought in even more capital inflows.

And, of course, Thailand handled this spectacularly by trying to impose a capital control without providing a context for it. They did this on a particular evening, I believe a Thursday evening, Friday all hell broke loose in the stock market. It was down by 30 percent, and it created this very unfavorable dynamic, in fact, where this announcement about the capital control was issued by the Central Bank Governor, who had gone off to the provinces the next day because she thought this was a small little act.

And so the next day the Finance Ministry had to pull it back, suggesting that the Central Bank was not really that independent as it looked. And, in fact, I think that this is the key issue in emerging markets, the nature of the independence of the Central Bank. And it's a nice organizing principle to think about how to structure a central bank effectively.

Now, ultimately, no matter how independent the central bank is by statute or otherwise, the independence of a central bank, in my view, ultimately hangs by a thread, because if a central bank is subjected to a lot of political pressures and is unable to deal with these political pressures well, it could lose its independence fairly quickly. The Governor to go to your (inaudible) very independence and to the bank which gives him a lot of room to move. But even he has to be conscious of the political environment he operates in.

And this becomes a difficult issue in countries like China and India because the Central Bank is again responsible for all of these multiple objectives and, more importantly, the Central Bank is really the only effective public institution in many of these countries. They have very strong staff, and they have some of the levers of power. So then the question becomes in order to have these institutions remain effective, do you ask them to do all that needs to be done in the economy in terms of maintaining macrofinancial stability and promoting financial development and so on? Or do you give them a narrower objective?

I think Governor de Gregorio has made a very persuasive case in addition context, but I think the principle is the same: that the broader the set of objectives with a very limited set of instruments, the more doomed you are to getting it wrong. And especially in the context where there is a tremendous amount of political pressure to bear, it makes it very hard for the central banks to manage these multiple objectives.

But the reality again is that in some of these countries, this is all there is to the financial system, so does the Fund do? Now some of these countries have taken the position that having capital controls gives the central bank an extra degree of freedom, and this degree of freedom is what is necessary in order for the central bank to work effectively. And both Governor de Gregorio and Professor Calvo have pointed out the problem with capital controls is that they ain't as effective as they look. When the incentives are strong enough to move money in and out of an economy, money is going to make its way around. And we've seen this

again in the cases of China and India.

So it seems to me that central banks have caught in this very difficult bind, and they don't have a good answer. But I would like to suggest that perhaps the answer is not as clear-cut as it might seem. It's very difficult for a central bank in these circumstances to not take care of asset price doubles even though they don't have the right instrument to do so. And, in fact, this can create its own set of problems.

So this tension, I think, is something that the economists haven't quite gotten around. In the Chilean case and in the case of some of the Latin American countries, I think moving towards a set of (inaudible), where there is a better set of institutions, more developed financial markets

allows this to work a lot better. And that is another important tension as well that becomes critical here in economies like China and India. It's not just a matter of regulator issues but also stability, and also financial development and financial inclusion that the central banks are dealing with.

My sense is that there isn't at a deep level, an inconsistency between promoting financial development and financial inclusion on the one hand, and on the other hand increasing financial stability. But I think they're at the stage right now where they are going to have to think very hard about the right lessons and give these economies the right tools they need to work with. And I think the real answer might be not just narrowly focusing on inflation-targeting of the monetary regime but think broader

about the institutional context in which these institutions operate, which is precisely the point that Professor Goodfriend was making in a subtle way.

So I don't have answers for that. I hope I have added to the questions in a sensible and framing way.

MR. DERVIS: Thank you. Thank you very much. Now, we will have some discussions, some questions from the floor. I think we'll take two or three questions, you know, and then come back to the panel. And let me just, you know, to break the ice -- it's not really a question -- but I mean really the topic today is monetary policy and financial stability. But listening to Governor de Gregorio and the other comments, thinking also of some countries that I'm following particularly close to -- one of them being my own country, Turkey -- there is also, of course, the fiscal policy.

In other words, what you can do with monetary policy, and what you can do with interstate and what you can't do, of course, does depend also quite a bit on what kind of fiscal framework you have.

Chile's part, for example, was able to be extremely contracyclical, I believe, on the fiscal side. And that is one of the strengths of the package. Countries that are unable or just have spent fiscally -- Ann Kruger has -- that's the point she often makes in her speeches, you know, in this time didn't use the good times to strengthen their fiscal position, of course, in much, much worse shape, and the monetary policy has less degrees of freedom in that case.

So that's just one question I wanted to throw to the floor. But

let's take some questions from the floor.

Yes.

SPEAKER: I have one question. Professor Calvo mentioned the need to sort of look for complimentary anchors and, obviously, one of the issues in the conference is financial stability. You mentioned the IMF. That's always been an exogenous anchor which in many countries is not very well received, even if it may provide a useful role.

What do you see as potential anchors coming from the financial side that could help compliment the macroactivity, the macroanchors like Chile has?

MR. DERVIS: Thank you. Any other question or comment?

Yes?

SPEAKER: Thanks. On the issue of identifying bubbles, you hear of from, no, you cannot identify them therefore we cannot do anything about them ex-ante. But that's not quite convincing. Central banks have to deal with other issues which cannot be identified with certainty like output gap is not measurable, but you still use it to guide your policies.

Second, if you say, well, we use macrofinancial policy to deal with the bubble, still you have to identify the bubble to let this other policy deal with that.

Also, central banks talk about the level of exchange rate versus the fundamental misalignment, et cetera. But that's just another asset price where you often do make a call whether it aligned or misaligned with

fundamentals.

Also, on this theoretical point that you only should -- monetary policy should only look at the sticky prices or rigid prices. When I think about the bubble, again bubble is the case when the prices that go up, it's not just a lot of fluctuation, but you see some prices going up and up and up, which you might think of another sort of rigidity. So I wonder whether monetary policy could deal with that as well.

Thank you.

MR. DERVIS: And we will go back to the panel now. Governor de Gregorio?

GOVERNOR de GREGORIO: Okay, a couple of points. First of all, I have to start by your concern about it is right when I said emerging markets are doing better, emerging markets and developing countries are doing better for (inaudible), but there is a lot of dispersion .

On one case I was looking -- if I said it in this speech or in another speech that I gave recently -- (inaudible) is not a surprise for Latin America. (Inaudible) -- like Latin America 20 years ago. There is a lot of currency mismatches, (inaudible) really reviewed the recession with fixing (inaudible) rate. And so they are condemned to some corrupt, especially when they (inaudible) recess.

So they're -- I haven't done the numbers. I looked carefully, but I think that they are not that far away from Latin America in the '80s with one difference: That Europe is very worried about rescuing them, and that was not our case with the U.S. in the '80s. There is a political and

European communication.

Second, with that monetary policy, a financial stability, what was fiscal policy? It is essential for fiscal policy, I would say, to be sustainable, to be solvent in order for you to have monetary policy independence to start with. It has never been an issue in our country because in our country for more than 20 years that we have a lot of financial conservative -- fiscal conservative, and we are not crazy with the rest of the world. So now but a key, the big problem that countries have is when monetary policy or the fact of monetary policy is inconsistent with a requirement prices for closing the budget. So it is extremely important to have a sound official policy or fiscal position in order for you to care about fiscal policy.

This thing happened with financial stability. It's very interesting because in the -- I wouldn't say we are studying it, but (inaudible) is one of the first time it puts an average emerging markets are been contracyclical policies. And contracyclical policies (inaudible) because you have a stable financial system, you don't fighting to control, you know, some prices and you don't need to take in fiscal policy because you can expand. So this is extremely important fiscal policy that I haven't -- I haven't (inaudible).

I want to (inaudible) I think that identifying bubbles is very difficult, although there are signs that make them kind of very evident. But not being able to identify bubbles is not a reason for not worrying about them. And we did it once. The first time that we intervened in the foreign exchange market, we said publicly it seemed that the exchange rate is excessively appreciated. This was 2001 because of a crisis in Argentina

late 2001 (inaudible). Also there was a crisis in Argentina, we have a future position but there was no reason to be contaminated because our only link was a very big frontier. But there was no commercial and financial (inaudible).

So we said -- but it depreciated in that time a lot, so we said, well, it seems -- and we had forms of inflation, so we said it seems that this (inaudible) will integrate (phonetic.) Now, if we intervene in that case, we announce an intervention for two months, and we intervene, and it is not effective interventionally. Moving the (inaudible) it means that was not the bubble, was not a huge misalignment.

So I think that you if cannot identify it, it does not mean that you cannot do something. But in the case of asset prices, you don't need to identify that. What you have to be like the (inaudible) about that, also to have some more (inaudible) in the financial system. And that can prevent the existence of bubbles or may also make the system stronger in case when they burst.

MR. DERVIS: Thank you very much. Maybe we'll go the -- yes, Guillermo, why don't you --

PROFESSOR CALVO: Okay. And in Eastern Europe, let me also throw in something. I mean you're right, a lot of it looks like Latin America 20 years ago, but somehow the international financial institutions, didn't they see that?

I mean the Baltic countries were, you know, were stars. It was not Latin economics that were -- that we're looking at, I see, all right.

MR. DERVIS: All right, (inaudible)?

SPEAKER: Okay, briefly, on anchors, one anchor that I think has been quite effective is accumulation of internationals. And, of course, that's costly, but it seemed to have worked quite effectively.

So but again, you know, in economics there is nothing which is always right, and a concern I have about that is more on asset . There is a (inaudible) possible indication about it. Just looking around Latin America I seem to see that countries that have been very aggressive in accumulation and accumulating international reserves, or funds, stabilization funds, our countries where the private sector seemed to have taken advantage of that and exposing themselves to greater risk. And we have examples in Mexico, for example, where the central bank has to come out and bail out corporates that have made their own -- their own beds.

And there are other countries around the world where that has happened. So I don't know. When looking forward, one has to be very careful about that.

On the issue of bubbles, I would say there are good bubbles and bad bubbles. And what we are concerned about are those bubbles, when they burst, it really make a mess. I mean the dot.com was a bubble. But you could deal with that with monetary policy. It got some social course , of course, but nothing much related in comparison to the present situation.

The present bubble, when it burst and it hurts everybody, so I guess we have to develop, even if we don't know how the bubbles are

created, and the fact is in economics we don't have a good theory of bubbles. So that's why unless we come up with a theory and establish at the beginning of a theory now -- but I'm not going to talk about it -- but still I mean there is no theory that is more or less agreed upon in economics about that. So that's why we don't know. That would be my answer.

But still, when you see something that looks like a bubble, I guess what the policymaker -- my advice would be what the policymaker should do is start happens if that is a bubble and it bursts? So start looking at all the interconnection between that bubble and the financial system. And if there is potential for infection, then you should be concerned about that. Even if that's not a bubble, at least be prepared to act on the spur of the moment.

Sometimes I call that, like fire briefs. Your central bank has to be doing a lot of fire briefs. Be prepared for worst situation identified, and again, even though that (inaudible) may not be a bubble, be prepared to act timely.

So, and, of course, if you have a theory about bubbles, try to present them, but not with monetary policy necessarily. I have a feeling that matches the bubble that we have seen recently. It has to do with the development of new financial instruments that have created liquidity, has made your house liquid, and your house is traded in Hong Kong, and everywhere else, and that's why your house and the cost of the interest rate that you had to pay for lowered. That's one interpretation.

Now, you created liquidity. You've printed money without the

lender of last resorts, and when there was an attack on that, then the bubble burst like regular bank runs, without the lender of last resort. And that was very costly because it affected the whole world.

So that would be my attempt to answer to that. And, finally, a little comment on Eswar. I think maybe one way to interpret, since my last visit to India I just became obsessed -- I'm always thinking about India now -- it's so interesting because it's so different from Latin America. Maybe one interpretation why India should still be concerned about bubbles is because credibility of monetary policy is so important. And in the bubble and the monetary credibility, given that it is such a central policy instrument, why I should be doubly concerned about bubbles in that case.

MR. DERVIS: Marvin?

PROFESSOR GOODFRIEND: Yes, I have a couple of things to add. One of them is somebody mentioned that the output gap is hard to measure. But the output gap is, in statistical terms, a stationary variable. That means you have a reasonable history of (inaudible). You can look and see where the output gap is far from where you think it would be.

The problem in statistics with asset prices is they're nonstationary. That's a huge difference. It makes all the difference in the world. There's no way that you can tell where the stock price should be or where the exchange rate should be over a long period because, essentially, these variable are very close to REM watt . That makes all the difference in the world in trying to judge, you know, whether you have a problem or not in the short run.

The next point I want to make is Alan Greenspan mentioned irrational exuberance in 1996, I believe it was, when the equity prices for the U.S. had gone up from what, 4,000 to 6,000, so they stayed up, and they went up a little bit too high, but they have more or less stayed up around 9-10,000 for the following 15 years with the exception of last year. Do you want to say that Alan Greenspan got it right? I don't think so.

Then in this decade Alan Greenspan decided not to say anything about the house crisis. Why? Arguably he got it wrong the previous decade, so he managed to make two calls in two decades on important asset price action, and I would say he got it wrong both times.

MR. DERVIS: Eswar?

MR. PRASAD: Particularly well, Professor Calvo left off, first of all I'm very glad that, being new to India, would get his focus on India. We need a lot of help in figuring out how to get things right. But India, I think, is a very good example of where these tensions come out to play, and conceptually, I think it's relatively straightforward to make a case that central banks focused on price stability objectives makes a lot of sense.

But in the most difficult circumstances that an emerging market isn't particularly one like India. I think it's a lot more complicated because in addition to the political winds buffeting the country, the central bank in particular, there is this issue about whether responsibility for bubbles, ultimately, rests with the central banks.

And two other aspects of that, the central bank also ends up having to deal with other financial stability issues in a much broader sense

in addition to be exchange rates. So there is the notion that the central bank essentially needs to be fighting on these multiple fronts, plus there is the argument that perhaps the monetary transmission mechanism isn't working very well. In addition, the fiscal authority is not behaving very well, so if we got the initial conditions right --, I think there is general agreement that if they got the initial conditions right in terms of having good institutions, a good monetary transmission making this (inaudible) so it is more clear. But if you don't have those initial condition and you're moving towards that, then I think the situation becomes a lot blurrier. And this is where the debate is in Asia.

So one, conceptually uncomfortable in making the case for inflation-targeting, or price stability objective as being the key objective of a central bank, or at least a key objective which would fight -- it should in-fall with its monetary policy instrument. It's not obvious to me that in an economy with these weak conditions we can really move forward.

Now, I happen to believe the case of inflation-targeting, but I'm hoping that Governor de Gregorio would give us more -- would give me more (inaudible) to make the case from his practical advantage.

SPEAKER: (Inaudible)-- just maybe one more thing. Can you say something about the smaller Asian countries?

MR. PRASAD: The smaller Asian countries are a mixed bag again. If you take a country like Vietnam, it's followed a practice very similar to China of trying to maintain a relatively fixed exchange rate. The capital account is becoming more open, and they've been buffeted by

huge wave of capital inflows coming in on the capital outflows right now. So that is the kind of monetary policy not because they're trying to manage the exchange rate in sort of a very small open economy. This wasn't what the Governor said. Trying to maintain that sort of exchange rate is going to be very difficult with capital flowing in and out.

Among the medium-sized Asian economies, Thailand is again held up by other Asian emerging markets as an example of a country that played by the book, based on what you would tell us, and as a consequence has had to deal with a lot of troubles. But the response, I guess, that the Governor and some of us would give is that the problem is you need to build up your financial systems and get the economy adjusted to the exchange rate volatility.

But in the short run, that has very serious political consequences for the central bank to deal with.

MR. DERVIS: Thank you. Well, I think we're a little bit overtime, and I guess we may have commitments so we may have to close. But maybe just a few last words, with looking forward, maybe.

GOVERNOR de GREGORIO: Yeah, looking forward I think that it is -- looking forward and thinking about the emerging markets, we have learned a lot. And this crisis shouldn't be -- shouldn't make us to think what we have already learned. There are countries that still need to make some adjustment, but I think the basic tension, and this (inaudible) last challenge was in terms of inflation-target, it's difficult. It's -- I think it is a very good way to organize monetary policy, to communicate, to have a

predictable monetary policy, to be able to conduct contracyclical monetary policy.

The latest experience of Chile in the last couple of years is that the outcome is much more difficult for achieving sense of how long do we be very close to your inflation-target, because we are a small economy subject to tremendous (inaudible).

MR. DERVIS: Thank you very much, Governor de Gregorio. Thank you all the panelists, and thank you for joining us this afternoon.

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I, Carleton J. Anderson, III do hereby certify that the forgoing electronic file when originally transmitted was reduced to text at my direction; that said transcript is a true record of the proceedings therein referenced; that I am neither counsel for, related to, nor employed by any of the parties to the action in which these proceedings were taken; and, furthermore, that I am neither a relative or employee of any attorney or counsel employed by the parties hereto, nor financially or otherwise interested in the outcome of this action.

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