FITZGERALD: I'm Deborah Fitzgerald. I'm the dean of the School of Humanities, Arts and Social Sciences here at MIT. And it is my pleasure to welcome you to the afternoon session. I want to say how delighted I am that our school is one of the co-hosts of this terrific event.

And before I say more, I want to just make a couple of thank-yous, first of all to David Mindell and to the 150th Committee, who have conceived of the idea of having these six symposia to highlight the scholarly and really practical aspects of research and education at MIT over the last 150 years. They've done a fantastic job, and I thank them very much.

I want to thank also Jim Poterba for his remarkable organizational skills, his sense of humor, his powers of persuasion-- which many of you have experienced-- his sense of humor, and his grace. He has really been the mind behind this, and he's just done a fabulous job as well.

Economics is one of 10 departments in the School of Humanities, Arts, and Social Sciences. It is the largest department. It has the most faculty. It has the largest undergraduate majors. And it has the largest number of graduate students. It also has the most Nobel Prize winners of all of the departments in my school, oddly enough.

All 10 departments in the School are dedicated to the education of MIT students. Each student at MIT-- each undergraduate-- is required to take eight classes in these fields, humanities, arts, and social sciences, which is quite high by peer standards. And so we see a lot of undergraduates in our school. From all fields across the board, MIT undergraduates tend to gravitate to the Economics Department, drawn by its illustrious faculty as well as by the rigor of the classes that they encounter.

MIT students, in my experience, tend to scoff at material that is not very difficult. And they find in economics a more than adequate challenge to their considerable abilities. I want to note too that there are a lot of MIT undergraduates and graduate students in the audience today. And I'm really delighted that you were able to join us.

Today we're honoring not only the economics field and the Economics Department but also, as this program indicates-- as you see the graduation dates of many of the speakers-- we're also honoring the extraordinary students who have graduated from this department. Like their faculty mentors, these graduates have exerted an impact on the profession and on the world that is really, I think, unmatched, transforming the domains of scholarship, of policy, and of business all over the world.

As this symposium makes clear, while there's a lot to celebrate today in the world of economics, there do remain many challenges in this sphere. And these are challenges that I believe MIT intends to meet.

So again, I want to welcome you to the symposium. And I will now turn things over to Ricardo Caballero. Thank you.

[APPLAUSE]

CABALLERO: Thank you, Deborah. The afternoon is slightly different from the morning. The idea is to discuss policy challenges. And the first of the two panels will be about macroeconomic policy.

The timing of this panel, weather aside, couldn't be better, no? The developed world is still struggling with the aftershocks of an extremely severe financial crisis. In the US, the debate is whether stimulus is still needed or whether the time has arrived to shift the focus to long-term sustainability issues. In Europe, the risks run deeper, and even the future of the euro itself is sometimes doubted by markets-- not by the IMF, but by markets, certainly.

These realities of the developed world contrast sharply with those of emerging markets in China and India in particular, where output gaps have closed and inflation and overheating concerns have reemerged. To illuminate us on these decoupling issues and other fascinating macroeconomic policy issues, we have assembled a superb panel. They have in common to be world-renowned academics and policy makers, and to be also graduates from the best economics PhD program in the world.

They need no introduction. They'll speak in almost nearly alphabetical order. Olivier Blanchard will first give us a global perspective. And then we'll get into specific issues-- emerging markets-- by Pedro Aspe, PhD '68. Do I have it right, Pedro?

ASPE: '78.

CABALLERO: '78. Oops, sorry. I knew something was wrong. I knew something was wrong. And Olivier was PhD '77. Then Bob Gordon, who is replacing Alan Blinder, is a PhD '67. Paul Krugman, who is not here but should be online, is a PhD '77. Greg Mankiw, PhD '84, and Christina Romer, PhD '85. So without further ado, Olivier, the world is yours.

BLANCHARD: I wish.

[APPLAUSE]

Good. Let me first say how happy I am to be back here, if only for one day. It's a very special feeling. Given my current job, as most of you-- I've been the chief economist at the IMF now for two years and a half. I was asked to give you a sense of the global landscape. And that's particularly easy for me to do at this point because two days ago, we published the World Economic Outlook update. So I still remember the numbers, which I will have forgotten probably by next week.

So the headline, if it has to be short, is the global economic recovery continues. And on the surface, the numbers actually look quite good. For example, global growth, growth for the world economy, is forecast to be at 4.5% this year, 2011, which is a fairly high number.

But below the headline, the reality is quite different. The global number is a bit misleading. What we have is what we have called, and many others as well, a two-speed recovery, depending on where you are in the world.

If you look at emerging market countries, and I'm sure Pedro will say much more about this, then they are doing very well. The growth rate that we forecast for 2011 is 6.5% for the group of emerging and developing economies. And as you know, if you go, for example, to China, the forecast is now of 10%. If you go to India, the forecast is of 9%.

Now, it's not only that. It is that this is a statement about the growth rate, the rate at which countries' GDP goes up. But there's also the question of how close we are to potential and why, in the crisis, they went away from potential. Output was lower than potential.

They are now, for many of them, not all-- for example, not Mexico yet. But for many of them, they are basically back very close to potential. And some of them seem to be crossing the line at fairly high speed, so that the challenge for these countries is really just to limit overheating, slow down so as to maintain growth which is consistent with what they can do. In the medium term, their challenges are going to be how to limit inflation, asset price bubbles, and so on.

Now, if you turn to the advanced countries, there the picture is much worse. The growth rate for the set of advanced countries for 2011 is 2.5%. That was actually one of the themes in Davos yesterday. I was not in Davos, but I read the newspaper. It was that within that 2.5%, there are actually two numbers. There's the US, which is growing at 3%. And there's the Euro Zone, which is expected to grow at 1.5%. These are very low numbers.

And again, these are not only low numbers. They're basically more or less normal growth rates for those countries in the sense of what we had seen earlier. But these countries have a very large output gap. And they are operating very far below potential.

Unemployment is very high in some countries, as you know, close to 10% in many countries. And given the kind of forecast we have, this implies that the unemployment rate is going to remain very high for many, many years to come, far beyond the technical horizon, for example, of the World Economic Outlook, which is two or three years. And that's going to be, I think, a very, very big issue.

So this is the general landscape. And I thought I would pick a few issues which are both very hot and very important. And I've chosen two. Another one, which I will not mention but I suspect Pedro may, is that of capital flows. But that I'll leave aside in the interest of time.

The two big issues I see-- the first one you're all aware of-- is what's happening in what's known as periphery Europe, which is a set of countries typically in the Euro. And there, [INAUDIBLE] trouble. I'll come back to it. And then the other issue I want to take up is not the fight, but the tensions between China and the US, and see what it is based on and where it's going.

So on periphery Europe, I think an important point to make is that the countries which are in trouble-- so just to be explicit, surely Ireland and Greece, and Portugal and Spain being not very far from it-- would have been in trouble had there been no global crisis. Basically what happened is that when they got into the Euro, and indeed in some cases before they got into the Euro, they thought that their future was very, very bright.

First, these are countries which used to be able to borrow at very high rates because of a large risk premium. The fact that now they were going to be members of the Euro meant that they suddenly were able to borrow from the rest of the world at a very low interest rate.

And then they had been told by economists that when you join a common currency area, your productivity growth just jumps up, and the future is very bright. And it turned out that was not true, that basically they entered, and their productivity growth did nothing. In some cases, it actually decreased.

So in all of these countries, what happened is at some point, they could continue to borrow. But they realized that the assumptions under which they had borrowed were no longer satisfied. And there was a retrenchment of spending in some countries-- private spending-- in other countries, public spending. But basically just a fairly major recession.

As a result of this recession, on top of a global crisis, then there was a fiscal problem which basically appeared. In most of these countries, the fiscal problem is really the result of the macro adjustment rather than something separate. There is one country where clearly there was fiscal misbehavior even before the crisis. That's Greece. So Greece is combining both a true fiscal problem to start with and a macro problem, which makes it much worse.

Now, this is history. The question is, what happens now? And it's clear that the markets are worried about whether the governments of these countries will be able to repay the debt, or repay the debt in time. And by implication, they worry that the banks which hold the stuff, which hold the sovereign debt, may also have serious problems. So we have the interaction between sovereign and banking problems, and spreads basically are very high on both in some of these countries.

And so the question is, what can be done? Is it hopeless? Is there some hope? Let me describe what I think should be done. And that's going to be normative. Then I'll turn to the descriptive, what's likely to be done. And let me give you the answer to the second part, which is, I think what will be done is what should be done, except a bit late. This is the way Europe operates. So I think by giving you the normative--

CABALLERO: Is it the same?

BLANCHARD: Yeah, it's the same thing, just three months later. We'll come to the debating part later, right? So let me tell you. Many, many people, and international organizations, and the EU, and so on have said, well, Europe has to have a comprehensive package. But it's one of these magic words. I mean, you say we need a comprehensive package, but the question is, what is it?

I think it has three parts. There are things which need to be done very urgently. There is, on the part of investors, a lot of skepticism that the banks have told the truth about their balance sheet. And many investors believe that in fact some of the real estate loans that they have are really worse than they said, that the proportion of sovereign debt that they hold is off the books, and so on and so on.

So it is absolutely essential. I think the investors are probably pessimistic, but the only way to disprove their fears or allay their fears is basically to make these balance sheets more transparent. This is known as the need for stress tests. What's important is not really the stress test part. It is really just the understanding of the balance sheets of the banks.

And I think that's terribly urgent. I think when this is done, the markets will realize that the numbers needed to recapitalize the banks are actually not enormous. It has to come with plans to recapitalize them, if needed. That's also not quite in place yet, and that's very urgent.

So I think this is what has to happen over the next few months. At this stage, in line with the remark I made earlier, there is a plan to have stress tests done by June or July. And I'm not sure that the time is there to do that. But that is clearly something which needs to be done.

The second is looking at the medium run, not just the next few months but the next few years or beyond that. There is an expression in French which I like very much, which is, donner du temps au temps, which I translate by "giving time to time." Which I think is actually quite important in this context.

I mean, it is very clear that the adjustment process that these countries will have to go through, both on the macro and the fiscal side, is not going to be over in three years, in five years. It will probably take 10 years before these countries actually get back to health.

I think we have to understand it, and we have to understand that the initial period is going to be a very tough one. It's going to be one of fiscal consolidation in an adverse environment, probably with negative growth, which we're seeing. And eventually things will turn around. And eventually, we hope, things will get back to some kind of normal.

Now, I think it's much too early to basically decide that this has failed. So far, for example, for the programs-- the IMF has two programs, one in Greece, and in Ireland. So far, the numbers are turning out as we forecast, and aren't great. But things are not worse than we anticipated, and the government is delivering on the fiscal actions that it has to take, the structural reforms and so on. So I think that's very important, to have that time horizon in mind and not just to panic.

Now, you have to take out of the picture the panic scenarios, which are always present. This is an environment which is rife with multiple equilibria. If the markets decide that you're not going to make it, then they decide that they have to charge a much higher interest rate. And then the debt dynamics are such that you have absolutely no way of paying back, and therefore the markets were right to decide that you could not.

So it's very important to eliminate, I think, these multiple equilibria for the time being. And what this means is that the countries have to know that as long as they are taking the right measures, they'll be able to borrow at an interest rate which is not too high.

And that's exactly what the IMF programs do. They say, you can basically borrow, in the case of the two countries I mentioned, that you can borrow at between 5% and 6%, for sure, for the next two years, and then we'll see. So this eliminates the possibility that they have to pay much more, at least for the time being.

The other thing which has to be done-- and the ECB is not eager to do it, but has done it and has to continue to do it-- is once these programs are in place, then the ECB has to provide liquidity to the banks. Because again here, you have the possibility of multiple equilibria, which is people believing the banks are bad, taking their money out, and making the banks collapse. There, the ECB so far has been basically providing liquidity, lending against collateral, and has to continue to do so.

The last point on this is that time to time is good, but things have to happen meanwhile. I've talked about the fiscal and structural measures, but more has to be done. And there has to be rules about what we call burden sharing. Which is basically if somebody is not going to be able to repay, who among the creditors takes the hit? And that's true both for sovereigns and for banks.

And at this stage in Europe, these rules are not ready. They have to be put in place. It's very delicate to do from a communications point of view because every time you talk about it, the markets get very edgy. But it is essential to do it. Under the scenario I've given, there is time to do it, but it has to be done.

So is this going to happen? Well, one can always think of other scenarios. I think there's a good chance it happens.

I think that if, for example, just to take an example, if Spain decided that it needed a program, and there was not enough money in the funds which had been put aside by the European Union to help Spain, then I'm quite sure that the Germans and the French would discuss, and it would be messy, but eventually the funds would come. I think that basically India-- and that's what I said earlier. India and, I think, Europe does what is needed. It just doesn't do it as quick as one might dream.

So this was the first issue. Let me turn to the second and last one, which is the US and China. Why is it that they seem to be unhappy with each other?

I think the way to start is to think about the US and to think about what was driving growth before the crisis in the US. And what was driving growth before the crisis in the US is so-called US consumers. Basically, US consumption was the driving force for-- the household saving rate had gone nearly to zero. It was driving growth.

Crisis has come. People have realized that it is unwise to save on the assumption that asset prices will go up by 20% a year. So the US consumers, lo and behold, have basically started acting reasonably, rationally. And the saving rate has increased in the US from very close to zero to something like 6%.

Now, that's a very good thing in the long run. But in the short run, as we teach in 14.02, that creates a problem of demand when people save more. And so something has to come in in order to sustain growth from the demand side. If it's not consumers, who is it going to be?

Well, so far it has been fiscal policy, which basically substituted higher private saving with larger public dissaving, larger deficits. But we all understand that that cannot go on forever. So there is a limit to that. What else can come? Investment can come, but at this stage, it can help for a while. It cannot help permanently. We had a reasonable investment level. It's hard to think it can be much higher for very long.

And so if you just take the identities, what has to happen is that sustained growth in the US, looking forward, say, five years or more, has to rely on an improvement in net exports. Or put another way, the US has to decrease its current account deficit.

Now, identities are kind of useful here because they tell you, well, if the US must improve its net exports, then some other countries, the rest of the world, must actually do the reverse. So net exports have to decrease somewhere in the world. Or another way of saying this, current account surpluses have to decrease somewhere else in the world. And the question is, well, who? Who does it?

And there, all eyes turn to China. Why? Because it has a very large current account surplus. And it is not the only country to do so, but it is very large. And so there is the notion that China should, for the sake of the US and for the sake of world growth, decrease its current account surplus.

Now, as luck would have it, that's also something that China wants, for very different reasons-- not particularly to help the US but because they think it's good for themselves. Because at this stage, what the current account surplus of China indicates is growth which has been based very much on net exports and not very much on domestic consumption.

And what's happening in China is that there's a feeling that domestic consumption-- partly for social reasons, partly for political reasons-- has to increase. So China actually wants to change its growth path from net exports towards domestic consumption. And that would be good for them, and it would be good for the US for the reasons I gave.

The problem is that they are not eager to do it very quickly. Because for them, it's a very large economy. It's a very large change in direction. They don't know how it's going to work. They know how to export. They are not sure how to basically satisfy the domestic market.

So their approach is to say, well, let's increase domestic consumption. Let's increase domestic demand. And if the economy starts overheating because we're still producing a lot of exports and now satisfying domestic demand, then we'll do something. And probably what we'll do in this case is let the Yuan appreciate so as to basically shift production towards domestic demand.

Now, what they have in mind here is for the end horizon of many years. They just don't want to do it quickly. But the US needs it fairly urgently. And so the tension at this point is really there, which is the US would like China to appreciate now, which would allow other countries which worry about competitiveness with China to also appreciate. This would start the process now. And China would like to do it, but at their own pace, which is probably a few years down the line.

So it's not as if the two players are totally at odds. But there's this problem of timing, which is a serious one.

So just to end, what happens if this is not resolved? If net exports do not improve in the US, I assume that Greg and others on this side will talk about it.

And well, then the US is confronted with a very difficult choice. Either it does fiscal consolidation-- but there is a risk that this decreases demand and slows down growth, which would be bad for the US, probably bad for the world-- or it continues to have very large deficits in order to push demand in the absence of the improvement in net exports. And then we get questions like the questions that we're now getting for Europe, which is, is the fiscal path sustainable? And there are reasons to think that one might want to worry.

So there are other issues in the world, but these are the two that I wanted to focus on. And with this I shall stop.

CABALLERO: Thank you very much, Olivier. Pedro?

[APPLAUSE]

ASPE: I am delighted to be back at MIT and to see my professors again. And I'd like to thank Jim Poterba and Ricardo for the invitation. Let me make three comments, one comment on emerging markets that Olivier referred to, how they are recovering. But then I will want to make a comment on the US and a comment on the indebted countries.

So first, on the recovery, as Olivier was saying, the emerging markets' recovery is here and is fast. And especially they're basically two speeds, as Olivier was saying. At the fast speeds, of course, China and India. But there are several Latin American countries, for instance, that are growing up around 6% to 7%-- Peru, Brazil, Colombia, even Mexico. We are lagging behind, but we're growing at 5%. So that's the emerging markets.

There are some laggards there too. In our continent, the emerging markets that are not growing are very easy to find. There's Venezuela, Cuba, Ecuador, Bolivia, Nicaragua. And it's perfectly easy to find zero growth or, as two of them, falling even in this year.

So let me talk a little bit about this growth of emerging markets. I think many emerging countries, we have learned the lessons from the previous crises. And I think there are some rules that are more or less accepted-- not all of them, but most of them will have.

On each part of the world, there's one emerging market which is the role model. In Latin America, it's Chile by far. We all would look at them. They were always ahead. And certainly Chile fulfills all these points. Let me go one by one.

One is the independent central bank. That's something that we have learned the hard way. Most of the emerging markets have gone that way. It's tough to do it, but finally we have it. And the reason is that you want to have a sound monetary policy, and independent from the government, and especially to keep inflation low. Why? Because we learned the hard way that when you have high inflation, to bring it down is too costly. So that's the first point.

The second lesson is trade liberalization. I think that's really, really, really important. And that's something that we have learned. It is a pain in the short term. But once you do it, you have permanent jobs, and you grow lots more, and you can grow faster without inflation. So I think trade liberalization is really one of these key pieces of policy.

By the way, I concentrate on liberalization of trade because the financial sector is a different thing. I will come back to that later.

Third, extremely important for emerging markets, the pension reforms. That's something that again, it was created first in Chile. Thanks god, I was minister when we copied that in Mexico. And 15 years later, 20 years later, it is maturing now. And so we have $180 billion of long-term financing for the first time ever. So the pension fund reforms a la Chilean is really important. Brazil has done it. Peru has done it. Colombia has done it. And this is really, really important.

The fourth, flexible or more flexible labor markets. There, you can learn the easy way or the difficult way. The easy way is that you convince everybody, and you pass labor reforms to allow more flexibility. The tough way is that you have so many crises domestically that finally the markets learn how to have contracts that are flexible. But this is very, very important.

For instance, in 2009 in Mexico, we lost, during the September 15, the Lehman, and the following 12 months, September to September, 2008, 2009, we lost almost a million jobs, 900,000. And the good news is that we have recovered them completely. But this flexibility is key.

Then another important thing is how the emerging markets behaved last year in terms of the stimulus. I think that the stimulus was clearly-- we used monetary policy a lot. And we used fiscal policy somewhat, but not a lot. It was lots more lower interest rates, maintain lower interest rates during the crisis. And that was, with some fiscal spending, very focused, very focalized. And I think it has come OK. Now we're dismantling this stimulus.

Finally, two points. Keep the public debt low because you need to keep the public debt low. In Latin America we have a rule of thumb, which is once it reaches 80%, you don't grow. And there are a lot of countries that are reaching 80%. And that's dangerous. Latin America, on average, it has 40. Chile has only 10%. Mexico has 30. Brazil has 55, 60. But that's really key. Once you reach the 80s, 90s, then growth immediately diminishes.

And finally, we have learned two things on the financial sector. And we have learned the hard way. One is, don't liberalize too fast. Be extremely careful there. And second, watch out with capital inflows. You will have to have huge reserves to allow this thing. And you have to be very, very careful. Thanks god, the new inflows are different from the past. They are more medium term than short term.

So we have learned the hard lessons because of mistakes that we made or because big triumphs that others did. But now it's a common culture that these things have to be there.

Let me make a comment on the world adjustment that Olivier referred to. It's key that the US diminishes this current account deficit. And it's key that China does the reverse adjustment that reduces its surplus.

And I think here the inflation fears in China will help because now that inflation starts being an issue there, you have two choices, the good one and the bad one. The good one is to revalue, if you have space. The bad one is to put the monetary and fiscal brakes and to dampen growth. So I think that the Chinese eventually-- at their pace-- but they will do the good one and revalue instead of putting the monetary and fiscal brakes.

There are some emerging markets that are having inflation problems, and they have used the exchange rate already so that they cannot appreciate anymore. And that's tough. They will have to use the fiscal and monetary brakes, and that's tough in the short term.

Finally, let me make a comment on those countries in Europe the have a lot of debt. I suffer. When I was minister of finance in my country, we were up the debt up to here. And it was horrible-- horrible! And it lasts forever.

I remember when I was coming to the US. And I was listening to Olivier, so I have to tell this story. We made a really good story and we said, we cannot take more debt. I mean, that's impossible that we take more debt. It would be highly irresponsible. So we come to Washington. I remember Jim Baker was the secretary of the treasury.

So I arrived and I said to him, look, I need you to listen to me for 20 minutes, the 20 reasons why we have a debt overhang problem, that we cannot ignore debt, et cetera, et cetera, and that we will have to face a debt negotiation.

And I remember it as if it was yesterday, that Jim Baker said, Pedro, come on, don't worry. Don't worry. You are our neighbor in the south and our friend, and we are going to give you financing. And I said, ay, ay, ay, ay, ay, ay, ay, ay, that's the-- no, no, I said, financing is more than-- no, no, no, financing is for growth. And you know? Okay.

I was reminded of that because Nicholas Brady, the later secretary of the treasury with whom we did finally the debt reduction-- and I was invited by the Greeks and the people in Europe to talk a little bit about the Brady plan. And of course, as Olivier was saying, the problem is the banks, no? It is not the US government problem. It is the US banks' problem when we have the problem, or the European problem.

And that takes time. That takes time. In the meantime, everybody is giving financing to them. And you look at the numbers-- impossible. Debt overhang-- horrible. The more it takes time, the more costly it is.

Let me tell you what happens in the second phase. So you take more financing, as we did for one additional year. And then the private sector, of course, knows very well this game and start saying, we're not going to give you any financing. So if you want to import anything, zero financing, zero trade financing. And then if you want to import, they say, ah, first you have to give me the financing, and then I will send you the goods. So really the squeeze on the economies are terrible.

So it takes time, I know, but for this debt overhang, the things we have learned is face them. Face them fast. Thank you.

[APPLAUSE]

CABALLERO: So next is Robert Gordon, who has kindly accepted to do this 10 minutes ago. So thank you very much, Bob.

GORDON: I'm delighted to have the chance to tell you much of what Alan Blinder would have told you if he had been here. And I know that because he and I have had active email exchanges over the past few months, identifying the small nuances in our generally overlapping views.

I try to think of two reasons why Jim Poterba might have chosen me out of the audience. I do have the requisite requirement of an MIT PhD, from 1967, the same year as Bob Hall. And probably just as important is that given my last name, if you replace Blinder by Gordon, the rest of the panel stays in the same alphabetical order.

[LAUGHTER]

I wanted to take off from two remarks I heard this morning, one by Bob Solow on macro in the 1970s and one by Bob Hall-- several remarks by Bob Hall-- on the causes of a long slump. Bob Solow identified a vacuum that occurred in the mid-1970s when Keynesian economics was confronted by an inflation the did not originate in excess demand, but rather from adverse supply shocks. That vacuum was filled with amazing speed.

And the MIT connection here is not particularly the articles that were written, promptly, to fill that vacuum but the fact that in the spring of 1978, two textbooks appeared that completely integrated supply shocks into Keynesian aggregate demand macro, complete with a formal dynamic supply-demand model, a diagram with inflation plotted against the output gap, with supply and demand curves in inflation space with the usual slopes. And those two textbooks were by two MIT professors, Rudi Dornbusch and Stan Fischer, who also had an MIT PhD, and then mine, also with the MIT pedigree.

Now turning to Bob Hall, I think it's interesting to see how we can take the traditional macro, a la those textbooks, and ask what sort of the minimum stuff we have to add in order to understand the crisis in the long slump. Well, we already started with a consumption function that depended on transitory and permanent income, a channel from interest rates to consumer durables, and a real net wealth effect a la Franco Modigliani.

The first thing I think we have to do is to make it clear that real net wealth is assets minus liabilities. And both are a problem for households and for consumer spending. Of course, we had the assets dragged down by the end of the housing bubble and the collapse of the stock market after October 2007. But we also had household liabilities rising from 90% of disposable income in the mid-'90s to a peak of 135% in 2007. So the households are sagging under all this debt while their assets are collapsing in value.

But we need a third channel besides interest rates and real net wealth. And that is something I would like to call credit conditions. And I'd like to illustrate it with a startling story from a mortgage broker friend who, believe it or not, is still in business.

He puts together deals and then presents them to banks, like Chase and other more obscure places, to try to get them approved. He reports that in 2005, only 5% of his proposed deals were turned down. And it's now 80%.

I checked his number with the chief economist of Wells Fargo, who I happened to meet a couple of months ago. He says for Wells Fargo, it's more like 50% to 60% turned down. So you have a quantitative credit constraint on top of the voluntary response of households to changes in real net wealth.

And I wanted to remind you that the Hall diagnosis is absolutely correct. You've got a demand side and a supply side. You've got the overbuilding leading to excess supply of houses, but you've also got the debt, which doesn't go away just because the house prices go down. And remember that each foreclosure raises the supply of houses by one without raising the demand for houses by anything, because the foreclosed household is not allowed to borrow to buy a new house.

It's very instructive to compare the recent episode with three earlier bubbles, the late '20s Japan and the US in the late '90s. There are a lot of similarities in the setup of the US housing bubble and 1927 to '29 episode, which involved not only the stock market. It involved residential overbuilding and a leverage-like phenomena of corporate holding companies, which translates in today's language into excess leverage.

Now, we know that the aftermath of the late '20s was a disaster, made worse by bad policy. We had a near disaster this time, with policy stepping into the breach in a very effective way. We know that Japan has had virtually two lost decades. Why was the stock market collapse of the late '90s different?

Simple word, leverage. The Fed had raised margin requirements from the 10% of the late '20s to a stable 50% during most of the post-war. So most of those stocks that were being bought in the late 1990s were not like the houses, with minimal down payments. People were putting up 100% when they were buying stocks for their retirement accounts.

So to replace Bob Hall's word "overhang" with the much more evocative word "hangover," here is our economy as I see it. We've got the household liabilities weighing down the consumer. We've got the end of cash-out refinancing. All this has led, as Olivier said, to a jump in the household saving rate, with more perhaps in line.

On the side of investment, we have the oversupply of residential houses. We have an oversupply people don't mention very often of hotels, office buildings, and other non-residential structures. And we have the well-known problems of the state and local governments, which have shed 200,000 employees in the past year. And they're just beginning. Cook County has mandated a 20% cut in budgets of every department. And that's just a small slice of the country.

So what do we do? Here we would turn to policy. I agree with Bob Hall that monetary policy has run out of tools. And in Alan Blinder's evocative language, thinking of World War I, we've run out of ammunition for the machine guns and the howitzers. We're in the trenches, and all we've got left to fight with are swords and throwing stones. So the Fed is pretty much out of the picture.

I might add, however, that the Fed failed in the housing bubble period to realize that it's got tools besides its blunt instrument of the Fed funds rate. The Fed controls marginal requirements for the stock market. It could very well have raised minimum down payment requirements, and it didn't. So Bob Hall's story, again, is lack of regulation, or actually a movement toward less regulation.

So that leaves us with fiscal multipliers. And I wanted to start with how do we estimate them. How do we know what they are? Robert Barro first brought my attention to a paradox, that the three big movements in government spending as a share of GDP that give us the potential to measure the effects all were connected with wars, World War II, Korea, and Vietnam.

And the problem is that while you don't have interest rate crowding out in those episodes, you do have capacity constraint crowding out. The government is literally crowding out industrial capacity and requiring that some kinds of production come to a halt.

So what do we do? Well, people for years have been looking at 1941 and seeing that the official unemployment rate was 10% and saying, oh, that looks like a good episode. There's excess capacity. What are the fiscal multipliers? And if you look at the annual data, they're very small.

Well, in recent research, and Bob Hall's student Valerie Ramey has played a role in this, it is possible to construct quarterly data by two different methods for 1940 and '41. And that is the classic period. The share of total government spending in GDP went up from 12% in June 1940 to 25% the day before Pearl Harbor. It more than doubled.

But the economy, the durable goods manufacturing sector, had run out of capacity in the last half of 1941. In quarterly data, both consumption and investment fell in the second half of 1941.

But if you stop your study of the multiplier in the middle of 1941, lo and behold, you get multipliers of two, very much like those that Alan Blinder and Mark Zandi found for the postwar economy. And very close-- I think Christy Romer will be glad to hear this because I think that kind of multiplier, around two, is what the administration was thinking about in making its estimates of the effects of the Obama stimulus.

Problem was, the Obama stimulus did not budge the share of government spending in potential output at all. It did not rise in quarterly data at all from the end of 2008 until right now. And that's because the very modest increases in spending achieved by the federal government was not enough to offset the decline at the state and local government level. Just about the same thing happened in the 1930s. The share of government spending and GDP in early 1940 was about the same as it was in 1934, a slide for state and local and a rise for federal.

So this leads to the question, what do we do? And monetary policy is out of steam. What do we do on fiscal policy? We have to pretend we're a benevolent dictator and ignore political paralysis. So this is going to seem like a dream world to even make some suggestions.

I would start with the Blinder-Zandi litany of multipliers, where the very, very bottom, with the lowest multiplier of all, is what President Obama was hinting at in the State of the Union speech. Cut the corporate income tax, a multiplier of about 0.4. At the very top of the list, with multipliers of 2 and 1/2, are extending unemployment compensation and making food stamps more generous, things that directly aim at the liquidity-constrained households.

So in addition to doing things for people who are living from hand to mouth, I think the payroll tax cut would be dominated by a new jobs tax credit. It's very hard to design, but not impossible. We did have one in the late 1970s.

And then we've got a problem about infrastructure. The problem about infrastructure-- and I'm an expert on this because the Recovery and Rehabilitation Act that Christy helped to design tore up the main street in front of Northwestern University all last fall. And I drove by every day. And Bob Hall was in the car with me one day. And I pointed this out to him, that there would typically be 10 machines and 5 workers. And God knows how much all this cost. Much of the Obama stimulus went to renting construction machinery rather into the wages of construction workers.

Well, that's enough provocation to get Christy and Greg going.

[LAUGHTER]

[APPLAUSE]

CABALLERO: Thank you very much, Bob. I have never heard you agreeing so much with Bob Hall, though. I'm very--

[LAUGHTER]

Anyway, now we will try to connect with Paul Krugman. Paul, are you there?

KRUGMAN: Hello? I'm here.

CABALLERO: Okay. We're all listening.

KRUGMAN: Okay. So I guess the first thing I should say is that clearly we have a major case for increased investment in the intercity transportation infrastructure because I am actually stranded in New York City at the moment.

So okay, let me actually weigh in here. In a way, I want to follow on quite closely on where Bob Gordon was. So my view of where we are, of what this depressed state of the advanced world is about, is pretty much what previous speakers have been saying.

I think it's not deeply mysterious. It is a problem of debt overhang. It's a balance sheet crisis. It's something that, if we didn't fully anticipate-- certainly nobody can really claim to have called this exactly as it was going to happen-- nonetheless isn't out of the realm of things that a number of economists have thought about.

And the whole setup, the problem of monetary policy at the zero lower bound, the problem of balance sheets constraining spending, is something that particularly those of us in the international macro area and those of us who pay a lot of attention to both Japan and to the Asian crisis countries in the '90s had sort of been worrying about, having nightmares about, for the United States for more than a decade before this thing actually happened. So we're in the universe, at least a part of the universe, that was very much a part of some of our imaginations before we got there.

What's really striking, and I think is worse than I anticipated, is the apparent inability of policy to really come to grips with this. And Bob Gordon said at the end about let's set the politics on one side. I'm going to not do that. I'm going to try and talk at least a little bit about why it is that we're in this state of paralysis.

And we are, as Bob Gordon said. The stimulus in the United States in the end didn't amount to any significant increase in government spending. At best, we were able to avoid a further cut in government spending. The transfer payments that were involved were significant, but not huge.

And this does not come as a great surprise either. If you looked at the numbers-- and I wrote umpteen columns about. In early 2009, it was clear that what was on the table was radically short of being enough to fill more than a small piece of the output gap that we already saw looming. So this is really not something that we didn't have the numbers for.

And I think what's interesting also is more broadly the hesitance of monetary policy as well. I'm not sure I fully agree with the notion that monetary policy is exhausted. In a different world, there are things that could be done. You could have quantitative easing on a much bigger scale than is being contemplated. We could have an increase in inflation targets, which I know is controversial in its implications. But at least basic economics suggests that it ought to be helpful. But none of these things are really in the realm, apparently, of the politically possible.

So what I want to do is talk a little bit about why I think we're in there. And it's not really very much about the contemporary politics, though that's obviously a part of it. I think actually we're talking much more fundamental. And it's something that actually, for an MIT-themed conference, seems particularly appropriate.

Which is, I think we've run into the limits of the Samuelsonian synthesis. I think since we've got all of these MIT-trained macroeconomists here, you all know what I'm talking about. But really, a long time ago, at the beginning of modern economics education, which is Paul Samuelson's '48 textbook, we had this really quite brilliant way to reconcile the brave new world of Keynesian economics with the microeconomics that had been the meat and potatoes of economics for so many generations, even at that time.

Namely that what we're going to have is we're going to have an activist government. We accept that the demand side of the economy can go very badly wrong. We accept that it's possible to get into depressions, that there isn't any simple automatic mechanism guaranteeing full employment.

But what we say is, okay, but we understand what to do. We have that Keynesian cross. We have monetary policy. It wasn't that much emphasized in Samuelson '48, but he took a bigger role later on. We can use monetary and fiscal policy to ensure more or less full employment.

And then, given that, we're back in the world where markets work. And we can talk about correcting minor market failures, but by and large have a free-market approach to the economy. And all will be well with the world.

What has turned out, at least as the way I see it now, is it turns out that that was a great place to be in, but it was ultimately unstable. And it was unstable in at least three different ways. It was unstable intellectually. It was unstable politically. And it was unstable financially.

So the intellectual part first. And being stranded in the wrong city, I wasn't able to attend the sessions earlier, but I assume there were some on this week. There was always something a little bit awkward about the Samuelson synthesis, which was that you were going to continue to do micro as we always had in terms of maximization and equilibrium, but you're going to be somewhat ad hoc about the macro. And inevitably and appropriately, there was a lot of pushing at that boundary in an attempt to put some micro foundations under the macro.

The trouble was that that effort did not go well, that in the '70s it might have seemed for a while that we were really on the verge of being able to have a completely micro-founded macro, but it turned out not to be something that you could do very well.

And also probably inevitably, what a good part of the economics profession did was to say, well, if we can't find a good micro foundation for these macroeconomic events and the way that things seemed to work, then things must not actually work that way. And so we had a large part of the profession turning to real business cycle theory, a large part of the profession basically turning its back on all of the issues that are being discussed in this panel.

And that left us-- I'd say myself, what does it matter what professors think? And the answer is, I think it does matter, that if you have a large part of the inner sanctum of academic economics that doesn't believe in Keynesianism-- in fact, at this point by and large-- and as people know, I've written some fairly insulting things about this-- it really doesn't understand it at all, doesn't even understand the logic of monitoring fiscal policy the way that somebody like me, or somebody like Bob Gordon, et cetera, understands it.

Then you have a situation where you don't have the kind of understanding and consensus that would make it possible to push through the kind of really strong policies that you really need at a time like this.

Then the political instability. Again, we're in a kind of a funny place. We were in a kind of a funny place for a couple generations where activist government to stabilize the economy was coupled with a generally free-market approach to running the economy. I think that's right. That's actually the way it should be.

But it is always going to be a bit of a problem. People who really, really believe that the government should keep its hands off are going to find it hard to accept the idea to put a clause on there that says "except when the unemployment rate is above x percent." Even the attempt at halfway houses-- I think in retrospect, monetarism was an attempt to preserve a basically Keynesian view of the way the economy works, but with a prescription for policy that was as judgment-free and apolitical as possible.

It does turn out to be ultimately unsustainable that if people are going to really believe that government is the problem, not the solution, then they're going to start believing that the central bank is the problem and not the solution. For a fairly long period of time, as long as the shocks to the economy were not too big, it was in fact possible for the central bankers to do the job of stabilization and to stay largely out of public view. Not public view, obviously, for the business community and so on, but not to be highly politicized figures.

But once you get into a crisis like the one we're in, where fiscal policy would need to be very, very strong to be effective, monetary policy is required to be adventurous, nonconventional, just to avoid utter catastrophe. You're in a world where the political basis, since the intellectual underpinnings of all that are not accepted by a large part of the political community, the support is not there for doing what needs to be done.

A lot of people-- if you look at some of what's been going on in the monetary discussion and the monetary discussion in Washington, where you have people demanding a return to the gold standard in the midst of strong deflationary pressures, where you would wonder, how on earth? What on earth is going on there?

And I think if you try to think of it in terms of a monetary framework, as most of the macroeconomists at this conference see it, it makes no sense at all. But if you think of it in terms of the political consistency, think about it in terms of what you think is the appropriate role of government, then it makes a lot more sense. Because if you have a large part of the political spectrum that believes that government has no role, really taking any kind of active role in the economy, that includes printing money. And so they're going to be very opposed to that.

And so we've lost the political consensus behind not just activist fiscal policy but even activist monetary policy, even activist monetary policy just to stabilize broad monetary aggregates. It's going to be very, very difficult. Basically, I think if you could roll out the arguments that Milton Friedman was making about what the Fed should have done during the Great Depression, right now you would find that he would be considered to be on the leftist side of the debate, and it would be deeply controversial.

Last but not least, there's the financial instability. And here I guess we've all rediscovered Hyman Minsky. And we discovered that a prolonged period of relative financial stability makes people careless. So you have rising leverage ratios, greater taking on of debt.

Which means that in some sense, the success of technocratic policies sets the stage for a crisis that's too big to be handled with narrow technocratic policies, and can only be really effectively dealt with by policies that are sufficiently aggressive, probably mainly fiscal but also perhaps monetary policies that are really aggressive, really unconventional, and because of the other things that have been going on, completely impossible.

And so if you'd asked me five years ago what would happen if the United States had unemployment in excess of 9% and every prospect of continuing to have unemployment that was at incredibly high levels for a number of years to come, I would have said there would be overwhelming political demand that we really do something. In fact, there isn't.

In fact, what's happened is that we've had a very near collapse of the idea that the government can do anything about this, As a number of people have noticed in the State of the Union, the president did not actually mention the word "unemployment," which is, again, a pretty shocking thing.

What all this implies, I think, is not the end of the world, but long, slow recovery. If we believe that it's about balance sheets, well, those balance sheets are gradually being repaired. But it's a really slow process. It can go on for a very long time.

Japan is the cautionary tale. There are some arguments about how deeply depressed Japan is now, or at least how deeply depressed it was on the verge of the crisis. And maybe in effect, Japan had done a fair bit of recovery, but obviously it was a very, very protracted process. And I don't see anything on the horizon that's going to change that.

It's a remarkable thing. We're not really suffering from lack of comprehension here, but we're suffering from a complete collapse of clarity in terms of the process, which has left us with not much in the way of policy under discussion. At this point, we can think of what we ought to be doing, but the fact of the matter is, we're not going to do it. I guess I'll end on that happy note.

CABALLERO: Okay. Greg, your opportunity.

[APPLAUSE]

MANKIW: When I look back on my education, one of the books that I was assigned as a freshman in college was a freshman Introduction to Philosophy course that had a big impact on me. It was called *The Myth of Sisyphus,* by Albert Camus. And what Camus was addressing was the question of how do you live your life once you've acknowledged that life basically has no meaning? The fundamental existential question. And I've come to think about that book lately as a macroeconomist.

[LAUGHTER]

Camus' ideal man is Sisyphus, who you may recall from Greek mythology was destined to spend eternity pushing a rock up a hill. As soon as the rock got up to the top of the hill, it would immediately roll back down. And Sisyphus would go back down and have to push it up again. And this would happen over and over and over again, forever. And what Camus admired about Sisyphus was that he kept doing it with all the energy he could, even though he knew it was fruitless.

Well, I was thinking about the history of macroeconomics lately. And I feel like we macroeconomists spend a lot of our time pushing this rock up a hill. If you think about the history of macroeconomics, I think of modern macro starting, basically, with John Maynard Keynes and the Great Depression. The early Keynesians, many of which were here, like people like Paul Samuelson and Robert Solow, were basically helping push up the rock up the hill, try to understand this thing called the business cycle to develop tools to combat the business cycle to lead to greater stability and greater prosperity.

And sometime around the 1960s, a consensus emerged, the sort of Samuelsonian synthesis that Paul Krugman referred to a moment ago. And it seemed like a very triumphant time. And people wrote books with titles like *Is the Business Cycle Obsolete?* You probably remember that.

GORDON: That was a good book.

MANKIW: And I think the answer now is no. But the fact that people even asked that question then was really quite stunning. And shortly after that, people were triumphant in the development of a macroeconomic consensus. Immediately things started falling apart with the great inflation of the 1970s. Milton Friedman came along with some pretty telling criticisms of that consensus. Robert Lucas followed in his footsteps. And everything sort of broke apart.

That's roughly when I came here to grad school. Things were basically breaking apart, which is very exciting for a student. There's nothing better for a student than to have a field in disarray. So a lot of my colleagues became macroeconomists because of that. And over a period of time, a new consensus emerged, what is sometimes called the new neoclassical synthesis or the new Keynesian consensus.

And it was a new class of models which, just a few years ago, seemed to be a consensus view about how the macro economy works. It involved what's sometimes called dynamic stochastic general equilibrium models, basically dynamic models with sticky prices. It involved monetary policy governed by a Taylor rule.

And in particular, this new consensus went hand in hand with what's called the Great Moderation. The economy seemed to get really stable. Policy seemed to be working really well. And we macroeconomists loved patting ourselves on the back, saying, gee, we really solved that problem. Great, we can sort of move on to other things like economic growth because we've solved the problem of the business cycle.

And what I think we've seen over the past few years is that rock has now rolled back to the bottom of the hill. And we're starting to try to push it up again. There's a lot of excitement among students. I'm sure at MIT-- I know at Harvard, where I teach-- a lot of students are interested in macroeconomics and in particular the role of financial institutions in the economy. And those old DSGE models, the consensus models, look quaint and somewhat obsolete now.

Because if you look at those models, they basically have no financial sector at all. And you can't really talk very meaningfully about the business cycle now without at least making some passing reference to financial institutions.

So to me, I think the main takeaway from that story is that we need to be very humble as macroeconomists and realize there's a lot we don't know. And even the things we think we know, in a few years we'll probably figure out we don't know because that rock will eventually roll down the hill.

Now let me turn a little bit to policy. The consensus a few years ago was that monetary policy was the main tool we used for stabilization. When the economy goes into recession, we cut interest rates. That stimulates borrowing and investment, and to some extent consumption. And that increased aggregate demand. Well, if you take that consensus view and apply it today and sort of stick in the current numbers into your favorite version of the Taylor rule, you get a target interest rate for the Federal Reserve of negative 3% or 4%, 300 or 400 basis points.

Now, it's kind of an interesting intellectual question to say, okay, why don't we just do that? Why doesn't the central bank just announce a negative 400 basis-point interest rate? I mean, after all, the mathematics department here at MIT doesn't have any trouble with negative numbers. Why do central bankers?

And the basic answer is that there's this other asset out there called currency, which is usually dominated by bonds. But if bonds earn a negative interest rate of negative 400 basis points, currency will start dominating money. And you can't have negative interest rates in a world where currency is floating around and widely available.

There have been ideas throughout history to deal with that issue. Silvio Gesell wrote about this 100 years ago, and Keynes approvingly talked about taxes on currency as a way to get effectively negative interest rates. Several economists, including Olivier, have talked about raising the inflation target. Paul Krugman has a seminal paper on that topic. And I agree with what he said earlier, which is that I don't think it's true that monetary policy is, as a theoretical matter, completely out of ammunition.

But I should note that as a practical matter, it probably is. I actually wrote a column for the *New York Times*. Like Christy, I write once a month for the *New York Times.* And about a year ago, I wrote a column exploring these ideas of taxes on currency and a little bit higher inflation as a way to get real interest rates down.

And it was the only column I ever wrote, if anything, that got people writing to the president of Harvard University saying I should be fired for suggesting such a thing. Drew Faust, the president, very nicely wrote back to them. She CCed me on her emails, explaining that we don't fire Harvard faculty for having crazy ideas and writing them down, that if we did, we wouldn't have anybody to teach courses.

But the response to that made me realize that it would be very hard for a central banker to actually try to entertain things like a higher inflation target. I'm quite sure that if Chairman Ben Bernanke said that he was going to target 5% inflation rather than 2%, he would soon be Former Chairman Ben Bernanke. So as a practical matter, I think it's unlikely we're going to get anything along that line.

There have been proposals out there for what's called a price level target, which I actually have some sympathy for, the idea being that rather than having a target for the inflation rate, you have a target for the price level, perhaps even increasing it 2% per year. But that means if you undershoot the target, you can get a little bit higher inflation for a while till the price level gets back on target. You're basically correcting for your past mistakes for the price level. That, I think, could be politically saleable, but even that might be difficult.

Now fiscal policy. About 10 years ago, my colleague Ben Friedman was trying to put together a conference. We have a regular series at Harvard where you get two prominent people outside of Harvard to come and debate some policy issue. And we try to get one person on each side. And what Ben thought a good topic would be was whether discretionary fiscal policy was a good way to combat the business cycle.

And so he called around and he found somebody who wanted to argue no, because we should use monetary policy. That was sort of a common view. But he couldn't find any prominent economist to argue in favor of discretionary fiscal policy-- none.

And that sort of reflected the state of the literature about 10 years ago. People really weren't thinking about discretionary fiscal policy as a stabilization tool. And as a result, when it came time to actually start thinking about it, we actually didn't know very much. So the questions of, is it better to do it on the spending side or on the tax side, which tax instruments are most powerful, payroll taxes or investment tax credits, we really had a fairly small literature on that.

And it's something we're starting to see work on now, but in some sense it's long overdue. And I'm sure Christy, when she was in the White House, would have loved to have had a more modern literature on that.

When the Obama administration came in, what they did, which I think was very reasonable, was basically simulate a standard off-the-shelf macroeconomic model. I'm guessing it was a Macro Advisers model, although I don't know. But I think a lot of these sort of traditional macroeconometric models give you results that are sort of similar.

And they got a multiplier for government purchases of 1.57 and for taxes of 0.99. And you really can't fault them for sort of taking that off-the-shelf model, even though it was the kind of model that people like Robert Lucas and Milton Friedman and many others have been criticizing for many years as not being deeply structural.

Now, from my perspective, I think the most important thing is to recognize there's a case for humility here. We really don't know the answer. Those models could be right. They could be completely wrong.

My own sense of things is that there's a growing literature, a small literature, that suggests that maybe this traditional story is not right. I'm personally kind of skeptical of infrastructure projects as a way for short-run stabilization. Part of it is based on my own personal experiences. I've been involved a little bit in the town of Wellesley, which is building a new high school now. I've been very much in favor of that, so I'm not against all infrastructure projects per se.

But in watching that infrastructure project go into effect, one thing you learn is that it takes a very, very long time to put a serious-sized infrastructure project in place. Wellesley took years to decide that they wanted a new high school. Should we renovate the old high school versus tear it down and build a new one? What should it look like? How much should we spend? How do we get state approval? And it was literally years before the idea first popped in somebody's head and they broke ground.

And when President Obama mentioned a few months ago that he learned there's no such thing as a shovel-ready project, I think that was the thing that made me most skeptical about infrastructure as a stabilization tool. I mean, for long-run growth, we need infrastructure for sure. And the question is, what's the right amount, and what kinds? But as a short-run stabilization tool, I'm more skeptical.

There's also, as I mentioned earlier, a growing literature suggesting that a variety of tax changes might be more powerful than government purchases. I mean, my colleagues Alberto Alesina and Silvia Ardagna at Harvard have written several papers on this topic, looking at OECD countries, where they find that taxes are more powerful to stimulate an economy than government purchases. Andrew Mountford and Harald Uhlig at the University of Chicago have also a paper that says the same thing.

And interestingly, one of my favorite papers of Christy's is a paper that finds very large tax multipliers, much larger than the-- in fact, I think the tax multiplier is around 3, which is much larger than the-- even Bob Gordon's government purchase multiplier is at 2, which is much larger, I think, than most of the literature on government purchasing multipliers.

I should say, by the way, that we don't really know which of those tax instruments is most useful in terms of stimulating the economy. Is it lump-sum credits, like handing out checks like President Bush did? Or is it the expensing for investment, as the Obama administration has recently passed? Which actually I think was a better idea. I don't think we really know that, but I think it's the kind of thing that we should spend more time thinking about.

The last topic I want to go over sort of just briefly is something nobody's really talked about now, which is the long-term fiscal picture, which I think is extremely worrisome. I'm looking forward to seeing what the next budget looks like, coming out of the administration. The last budget that came out from President Obama has the debt-to-GDP ratio rising in each of the next 10 years and for as far as the eye can see.

And to remind you what the president's budget is, the president's budget is not what's under current law. The president's budget is the president's proposals, who says, this is what I propose. And I'm going to assume everything gets passed that I proposed. And here's what will happen under my proposals. So under the president's proposals, he said we're going to have a debt crisis. Under my proposals, the debt-to-GDP ratio will rise forever, which obviously can't happen.

Of course, they knew that wasn't really a serious proposal, so they proposed a deficit commission, which came back with, from my perspective, extremely reasonable recommendations. I was actually very skeptical they would do this.

But the debt commission chaired by Alan Simpson and Erskine Bowles came out with several very good ideas from my perspective, progressive cuts in Social Security benefits over time, raising the retirement age by a small amount, a small gasoline tax-- although I'd make it $2 rather than an extra $0.15, which I think was what they proposed-- and tax reform that raised revenue by broadening the base and lowering rates. So I thought that was a really great idea, and I'm sorry the president didn't give it his more full-throated endorsement in the State of the Union the other night.

Now, my fear as we go down this road is the easiest thing to do, if we don't do some major reforms on entitlements or the tax code, is to add another revenue source. And the one I've been expecting-- this is not a normative conclusion. It's the positive prediction. What I've been expecting is at some point somebody will propose a value-added tax. Nancy Pelosi has said positive things about it in the past. I don't think it's going to happen this Congress, but it could happen in some future Congress.

The value-added tax has the advantage of being a consumption tax, and therefore is relatively efficient. Now, it tends to be hated by conservatives because they tend to think that that's why government is so large in Europe-- they have this hidden VAT, and that allows politicians to sneak in tax increases.

I suspect it's probably the other way around. It's more that Europe has chosen to have a large government and therefore needs a relatively efficient revenue source, and that's why they've opted for a VAT. Unless we rein in health care costs, we're going to need a new revenue source, and the VAT is a relatively efficient one.

On reining in health care, I should just mention, by the way, the health care bill. My own reading of it is it had two goals. Goals was universal coverage and reducing the growth rate of costs. I think it succeeded quite well on the first and failed miserably on the second. And the claims that it reduces the deficit are all because it included a bunch of tax increases that are sort of independent of health care per se. But the health care reforms were cost increasing, not cost decreasing.

Now, the reason I worry about this idea of a VAT is there's this whole debate. This is my last thought. There's a whole debate over, why is the US different from Europe? One thing we know for sure is that Europeans work less than Americans. That, I think, is uncontroversial. What we don't know for sure is why do they work less than Americans?

And I think there's basically three hypotheses out there. There's Olivier's hypothesis, which is they have more taste for leisure.

[LAUGHTER]

GORDON: He's an expert.

MANKIW: So that must be why he moved to the United States, because I know he's a hard worker. There's Alberto Alesina and Glaeser, that says it's the unions in Europe. And there's Ed Prescott, that says it's the high taxes in Europe.

Now, my fear is that we're going to have an experiment and that if we actually do have a VAT, and we move our tax code in the direction of the European-like systems of much higher rates than we have today, we're going to actually decide whether Ed Prescott or Olivier's right. And my fear is that Ed Prescott may be more right on this than Olivier, but maybe if we have this at the 200th-year anniversary for MIT, we'll actually know the answer to that. Thanks.

[APPLAUSE]

CABALLERO: Christy Romer?

ROMER: Well, thank you. And it is lovely to be here to celebrate MIT's 150th anniversary, and particularly to celebrate the proud history of economics and finance at MIT.

I have to say it's also lovely to have made it here despite the weather, especially for those of us who were in on the last flight from California last night. It was certainly more of an exciting ride than I like. Poor Bob Hall, who had the misfortune to be seated next to me, I believe has the dents in his arm to prove it. It's the only time in my life I've had a flight attendant beg me to drink a glass of wine.

[LAUGHTER]

Well, the topic of this panel is obviously fiscal policy and macroeconomics. And certainly in the last two years, we have had unprecedented fiscal policy. I think dire economic circumstances required extreme policy actions. And just to put things a little bit in perspective, though, like Paul Krugman, it's well-known I would have liked a bigger Recovery Act. But at $787 billion, it is the largest by far counter-cyclical fiscal measure the United States has ever taken.

And it wasn't the only thing that was done. There were numerous extensions of unemployment insurance benefits, more aid to state and local governments. We even had a version of a new jobs tax credit, the HIRE Act, that was passed that gave firms a tax credit for hiring unemployed workers. And I certainly spent much of my time in Washington helping to formulate those policies, then helping to get them passed, and then a lot of time trying to defend them.

And actually what I had planned to do today is to say I don't want to talk about the past. Let's talk about the future. But coming sixth in the panel, I can't resist a little bit. This issue of fiscal policy multipliers, it is obviously important. How effective is fiscal policy? 20 years ago, we were having this same debate as how effective is monetary policy?

Just to add to some of what Bob Gordon was saying, when we look at wars and you say, gee, you do all that spending, and output, it goes up a lot, but maybe you don't see a huge multiplier. One of the other things you have to think besides of capacity constraints are tax increases.

So take your 1941 example. We had three major tax increases in 1940 and 1941. So before you say that fiscal policy doesn't matter in wartime, think about, on net, what's happening to the budget.

The other thing, on what Greg said, I mean, yes, of course we would have liked much more information on fiscal policy. And certainly that information is coming out. But I think there is actually a lot of evidence on the effect of fiscal policy. And I think it goes very strongly in the direction not that the big macro models that, say, we used in the administration to get a kind of a baseline estimate of what it might do, might have too big a role for policy.

If anything, I think the evidence is saying it might be those numbers that come out of that are smaller than what the truth is. The whole idea is if you do the studies more carefully, take into account when do you often do fiscal changes-- perhaps you do a fiscal expansion when the economy was tanking. That's something that tends to lead you to understate the size of fiscal multipliers.

And I also just have to correct. Yes, David and I did write a paper that said tax multipliers are really big. We made it very clear we think that the same kind of issues that make people underestimate a tax multiplier make them underestimate a government spending multiplier. It's the same issue of you're not taking into account what other things might be going on. So in my heart, I feel very deeply that the actions that were taken in the last two years were incredibly effective and played a role in the recovery that we're seeing.

So now let me move on to what I thought would be helpful, is to talk a little bit here at the end of the panel of what I see as the future of fiscal policy. And I guess the first issue to put on the table has to do with the fact that the Recovery Act is coming to an end. So it was designed to provide support to the economy for two years. And at the end of the first quarter of 2011, we will have spent about $700 of the $800 billion.

And so I think that's actually something that's very important to understand. We've been having fiscal stimulus at a rate of about $300 to $350 billion a year. When that ends, that is a substantial fiscal contraction. And certainly for someone who believes that the fiscal stimulus was effective when it was there, I think one of the things we have to realize is when it comes off, that is a contractionary impulse.

Fortunately, that's not the only thing that's happening in the economy on the fiscal side. Obviously in the lame duck session of Congress, we passed a substantial additional fiscal stimulus. It included more extensions of unemployment insurance, substantial payroll tax cuts, and some extension of some of the Recovery Act provisions, say for investment tax credits for businesses.

And so all told, we have about $250 billion of extra stimulus coming from those new actions. Of course, you need to realize that's good, but of course the main thing that it's doing is cushioning the blow of the Recovery Act coming off. So that we need to keep in mind as we think about where the economy stands on fiscal policy, that we're sort of at best breaking even in terms of the amount of fiscal stimulus the economy is having, that we haven't had a net jolt of additional stimulus.

Well, this discussion of where we are in terms of fiscal stimulus I think brings up a more fundamental point, which is, and it's something that Olivier and certainly Bob have alluded to, which is, despite these fiscal actions, the US economy is still suffering from a tremendous shortfall of aggregate demand, that unemployment remains high, primarily because there isn't enough demand to keep our factories and workers fully occupied.

I think there is very little evidence that much of the elevated unemployment is due to structural changes. There has been perhaps a small rise in the normal rate of unemployment because of sectoral changes, and perhaps the scarring effects of high unemployment. But I think most experts, including the forecasters surveyed by the Survey of Professional Forecasters, puts the rise in the normal rate of unemployment that we have experienced at maybe a percentage point, which is obviously very small compared to the rise that we've seen in the unemployment rate relative to its pre-recession level.

Going forward, I think we need to keep in the forefront the idea that we desperately need more demand in the short run. I think if we could find a way to do what the president suggested in the State of the Union Address, to increase government investment spending substantially in the short run, that would be very helpful. It would be good for job creation today and good for our productivity over the long run.

And in fact, I think one distressing feature of the speech was that the concrete proposals were so small. We're talking $4 billion for clean energy investments, or something similarly small for universal wireless access.

I think if policymakers fully recognized and fully acknowledged the severe short-run demand shortfall, they'd be looking for something far more aggressive. And it probably wouldn't be just investments. You might make the payroll tax cut bigger, perhaps putting it on the employer side as well as the employee side. You might provide additional help to state and local governments. And I'll discuss in a minute what we could do about the deficit that would make such an ambitious recovery program possible.

Before I talk about the deficit, I do want to say a word about the interaction of monetary and fiscal policy, something that's come up a number of times this afternoon. I think one of the things that I found distressing in December were the number of people that started to say, well, we just passed another fiscal stimulus. Surely the Fed should stop its program of quantitative easing.

And here I do disagree with Bob, and I think agree with Paul and perhaps Greg that while quantitative easing, the Federal Reserve's policy of, say, buying long-term government bonds in hopes of pushing down an interest rate that isn't yet zero, the long-term interest rate, or to try to stimulate the economy in other ways, it's something we don't have a lot of experience about. We don't have strong estimates for how effective it is. But the estimates that are out there suggest it is doing something, and could be even more useful.

And so I think the idea that we should be dialing it back I actually think is very bad. I suppose it could make sense if one thought that the degree of asset purchases that the Fed had proposed was just exactly right to achieve reasonable output and inflation goals. But given that output is dramatically below trend, and given that inflation is below the Fed's target level, that strikes me as absurd, and that the economy needs as much monetary help as possible, given the deficiency of demand and the impediments to more short-run fiscal expansion.

Well then, the main, I think, impediment to doing what we really need to be doing in the short run, which is more fiscal expansion, is obviously the long-run budget deficit. And here I find myself in wonderful agreement with Greg, and even in wonderful agreement on how you might go about doing it, including endorsing the proposals of the bipartisan commission.

Because the deficit is unquestionably a genuine political and economic problem. The voters obviously hate it and are skeptical about the value of more spending and tax cuts. And the deficit truly is large, and more importantly, growing over time.

Now, it's large today primarily because of the recession and the measures that had to be taken to fight it. But it is growing over the next 25 years because of demographic changes and rising health care costs. And at some point, the deficit would get so large that they would severely damage the economy and our ability to pay our debts.

And what I find so incredibly frustrating is that I think it's easy to say what good fiscal policy would be at this point, and as Paul Krugman described, incredibly hard to pass that. Good policy, I think, would surely include more fiscal stimulus now. It should be high-quality stimulus. I think as conditions have stabilized, we can be fussier about what we do.

And actually one of the things I liked best about the State of the Union Address was the president's articulation of the appropriate role of government in investment. The government should support things that the free market will tend not to do enough of, things where the returns cannot be fully captured by the individual investor. And the president singled out basic scientific research as a classic example of an appropriate area for government support.

But that high-quality additional fiscal stimulus needs to be coupled with a signed, sealed, and delivered agreement for deficit reduction, starting in 2012 or 2013. And this agreement is going to have to tackle the true driver of our deficit-- long-run entitlement and spending on Social Security and Medicare. It's going to have to include significant cuts to the growth rate of defense spending. And it's surely going to have to raise additional revenue.

Now, many European policymakers these days are saying that a deficit reduction plan should be front-loaded. And that is, they want that it should include drastic deficit reductions immediately that convinces people that the government really means business.

I think this is exactly the wrong policy for a country like the United States that's not in an immediate fiscal crisis and is still struggling with very high unemployment. The ideal plan, in fact, would be very back-loaded, where the heaviest deficit reduction is put off until the economy is stronger. Indeed, it should be back-loaded to the point where we have some additional spending in the short run to aid the recovery.

I think the obvious time for serious deficit reduction is when the economy has recovered enough that the Federal Reserve is ready to start raising interest rates. At that point, monetary policy would be in a stronger position to counteract any contractionary impact of a fiscal reform.

My fear is that we're likely to do exactly the wrong thing on the deficit and fiscal policy, that we're likely to cut short-run spending but do little to deal with the long-run deficit. I found the discussion after the State of the Union on Tuesday night very distressing. It was all talking about whether the president's proposal to freeze non-defense discretionary spending for five years was better or worse than the Republicans' proposal to roll back non-defense discretionary spending to 2008 levels.

This is a fight about a small fraction of the federal budget. And neither of the proposals could have a meaningful impact on whether we go bankrupt over the next 25 years. This fight is at best a distraction from what we actually need to do to solve our fiscal problem, and at worst it could be counterproductive. I think cutting spending in 2011 could slow the recovery, and by doing so, actually make the short-run deficit worse. And that's why the bipartisan fiscal commission recommended that no serious deficit reduction begin in 2011.

Well, I wish I could say that I'm optimistic that we will do what needs to be done with fiscal policy, going forward. But despite having been described by the *San Francisco Chronicle* as Obama's sunny economic forecaster, even I can't sound too upbeat. About the best I can say is that people are at least talking about these issues in a serious way. And that is, surprisingly, a step forward.

Our best hope, I think, is that policymakers listen to the experts. What is striking is the degree of agreement about the sources of the problem among the people who've actually studied the issues carefully. And I think there's surprising agreement on some of the changes necessary.

For example, I bet even Greg and I could agree on some tax reforms that would improve incentives while raising additional revenue. We all need to hope that reasonable voices carry the day in Washington and that MIT and other fine universities keep generating the experts who will help policymakers understand the issues and make better choices. Thanks.

[APPLAUSE]

CABALLERO: So we still have 10 minutes. And I think that I see you writing feverishly here, and so is Olivier. So why don't I give a round of a minute each? And then we open it to the floor.

BLANCHARD: I'd rather--

CABALLERO: No, I'd rather here because they have already listened to your--

BLANCHARD: I have no comments at this point. I'd rather get questions from them.

GORDON: Yeah. I agree with a lot of what Greg and Christy said about the long run. I wanted to add a couple of additional things.

Nobody has brought up yet the trade-off-- it's actually not a trade-off-- the additional choices we have to make on energy independence. Nobody's brought up the carbon tax. Nobody's brought up the really massive increases in federal gasoline taxes that over a 20-year period could bring us closer to European levels of energy use.

If we recognize that we have a model of how to become more energy-efficient, it's called Europe. And they use half the BTUs per dollar of GDP that we do. And they do it by all sorts of means, including higher gasoline taxes.

When I put on my productivity hat and look into the long run, we've got several big problems that have not come up yet. First, we've got an increasing dependence ratio as the Baby Boomers retire. And we can deal with that in two ways.

One is to raise the retirement age gradually, index it to life expectancy, more specifically as the bipartisan commission recommended. We also should, as the State of the Union Address strongly recommended, lift all limits on high-skill immigration and encourage people who come to MIT from other countries to stay in the United States once they have that MIT pedigree. And finally--

[APPLAUSE]

I sound like I'm running for office.

[LAUGHTER]

And finally, the last thing is, let's recognize that we have a cost inflation problem in higher education that's almost as serious as cost inflation in the medical care industry. And our international leadership in the educational attainment of our young people is slipping down the league tables, in part because we have an ever more expensive relative price of higher education without resources being devoted either to capping those costs or to helping the students finance it.

CABALLERO: So I'll open the floor for questions. You have been very persuasive. So let me ask one. Olivier, your main scenario is one in which Europe does the right thing, but it does it slowly. We know that there are other scenarios, one in which slowly is not good enough for the markets and we get a crisis. So what is the globalist scenario in such a context? And can you do a bit more of positive economics?

BLANCHARD: Well, with care, for obvious reasons. Yes, there are other scenarios. There's a scenario in which the investors panic and countries have to reschedule or restructure debt now. I think if this were to happen, I think Europe is not ready to handle it in the sense that who bears the losses between the creditors, between the national states, and between the EU hasn't been worked out. I think it would be a very, very messy scenario.

We've tried to think through it. And clearly you can construct scenarios where the effect on the banking system would be such that Europe would actually go through another recession. So I think that's what really has to be avoided. And as I argued, I think it can be avoided. We have the means to avoid it if we're ready to basically commit the funds so that these programs can go on. Maybe not forever, obviously if you're pushing me, but at least for more years to see whether they actually work out.

CABALLERO: Does it transfer to the US? Or does this contain in Europe? What is your view?

BLANCHARD: If Europe does badly, then there are the usual trade effects. Then there are the financial linkage effects. But it would probably be mostly a core Europe story, with clearly an effect on the world, but not anything like what we've seen, I think.

CABALLERO: That's a relief. Questions for them?

AUDIENCE: Yes, I thank you so much. My name is Federico Caravaggio. I am a graduate from 1989. There's been a lot of talk about the business cycle and how monetary policy has for many, many years basically eliminated the business cycle. We've been hearing the Greenspan board, now the Bernanke board, where every time we have a reaction in the markets, there is a reduction in interest rates, assuming that this will end up causing some reduction in employment.

To what extent this contributed to create this Minsky moment, it created a lot of complacency in the markets. It created a lot of more speculation. It probably contributed to reduce savings rates because nobody's prepared for the business cycle anymore. Even contributed to the deregulation of the banking system, the reduction in the capital rates of banks. And now we have this-- because we eliminated all these mini business cycles, now we have this big one.

So I don't know if there's any research done, or anybody has analyzed or thought about this. I know there's a discussion in Congress, which is probably very politicized and not so much academic about this issue. But I would love to hear your opinion. Thank you.

ROMER: Yeah, I'll say one thing, which is I think when Greg talked about the degree to which when we were in graduate school, fiscal policy was something you didn't talk about, and that monetary policy was the main tool that we use for stabilizing the economy, I think the history of the postwar period is actually learning to use monetary policy well. At least in one concrete way, that when you talk about where did recessions come from in 1958 and in 1969 and 1974, a big part of that was the inflation rate got high because of bad policy.

And the Fed then had to engineer a recession to get it down, and that's the Volcker recession. That shows up in a number of things. And precisely what we did learn and showed in the Great Moderation is how not to let policy get to the point where it caused inflation. And then we didn't need to create recessions to bring it down.

So there has been a genuine improvement in monetary policy that eliminates one source of business cycles. And then I think what we're learning from this recession is that there were other things that were coming about. And I think monetary policy at most played a small role in the crisis. But certainly other factors like financial innovation, like deregulation, I think those may be much more important. And what we're learning is we now need to put in place the better policies that deal with those issues.

MANKIW: I think It's also true, as you point out, that people-- it's almost as if this crisis was due to lack of imagination. Not enough people asked the question, what's going to happen if housing prices fall by 30%? Wall Street didn't ask it. Policymakers didn't ask it. Homeowners didn't ask it. Lots of folks didn't ask that question. And we're just not used to thinking about contingencies that aren't in our experience.

So my guess is you haven't spent a lot of time thinking, what am I going to do if an asteroid lands in Central Square? Or you probably haven't, but it could happen. And if it happens, everybody will say, why didn't we think about that? Why weren't we planning for that contingency? And it just didn't enter our imagination.

And so I think these crises tend to happen when stuff happens, with these events that didn't enter our crisis. There's a great book called *The Big Short.* And *The Big Short* is about these few hedge fund managers who did anticipate something like this happening. And they made lots and lots of money.

But what's fascinating about that, the story, is how they were pilloried by their own investors while they're making this bet. All their investors thought they were nuts, making this big bet. So imagine that a central banker had said this where he didn't have just a few investors he had to pacify but like the whole nation. It would have been very hard to lean against the wind.

Like Bob Gordon mentioned earlier-- I agreed with most of what Bob Gordon said. One thing he said was, well, why didn't we raise down payment requirements while the housing prices were going up? Well, imagine you're a politician. He said he sounded like a politician. He didn't sound like a politician at all. What politician would say, housing prices are affordable, let's make them only for the rich? But that's what his policy is. I mean, a pundit would have made sense at the time, but it was politically impossible because people didn't envision the possibility of a collapse of 30%.

GORDON: There's too much agreement here. Let me disagree with Christy.

[LAUGHTER]

I disagree completely with Christy's interpretation of the Great Moderation. I don't think better monetary policy had anything to do with it. We had big shocks in the 1970s and the early 1980s. Then we had a 20-year blissful period with hardly any shocks at all, including what I call beneficial supply shocks that allowed us to have a boom in the late '90s without inflation.

So we had an academic debate five years ago. Was it less shocks? Stock and Watson and I said that. Or was it better monetary policy? That debate was over the minute the big shock happened. Because it was just luck, and we got unlucky, and the business cycle was back.

ROMER: That debate was not over.

[LAUGHTER]

Both those things can be true. You can have monetary policy getting dramatically better, and so not having the boom-bust. And you can then get a big shock in 2008. There's no logical thing that that shows you that it was shocks that happened earlier.

GORDON: Let's have another question.

CABALLERO: Olivier will set her over.

[LAUGHTER]

BLANCHARD: Yeah, it's good, but the disagreements are coming after an hour and a half, right? I disagree with Bob.

[LAUGHTER]

I think complacency was partly justified. I mean, if I look at the way we handled oil price increases the second time around, if I compare how we handled them in the '70s and how we handled them in the 2000s, we had much better policy, and the effects were much smaller. So I think there's no question that with respect to some shocks, many of the shocks we understood. Then we did much better. And that was part of why the economy did well.

What happened has been said by Christy and others, which is we got a shock we had not anticipated. I mean, it's the old form of the unknown unknowns. And with respect to those, the first time around, we do badly. Was it a lack of imagination? Well, maybe more, because I think some of us actually thought about what would happen if housing prices went down by 30% and concluded, well, it wouldn't be the end of the world.

And the reason is that there was a lack of something else, namely knowledge about the financial system. Which is that unless you look in the right place, you just don't see it. So I remember that I finished the last edition of my textbook in the summer of 2008. And I said, housing prices are coming down. This could be an issue, but the number is small relative to what GDP is. Not going to be a big deal. I just didn't know enough about the financial system to understand what would happen.

And trying to think about the unknown unknowns is just so incredibly hard. As a result of the crisis, we've set up at the Fund something called the Early Warning Exercise where basically we try to go through crazy scenarios and try to think through them. It's incredibly hard. What happens? I mean, take Tunisia. If Tunisia leads to Egypt, and Egypt leads to something else, what will be the effect on the price of oil? What will be-- it's just very, very hard. So I think it's a mix. It was not just luck, is what I would say.

AUDIENCE: Thank you, and thanks for such a stimulating panel. My name is Bernie Horn, Sloan 1980. But an observation and then a question about deflation. But fundamentally I guess I'm confused, because I think that the Keynesian model, which is you can deficit spend, was great for the yesteryear when fundamentally the world was composed of developed countries, that sort of one deficit-spent, the other one lent. Sort of minor adjustments to equilibrium, and everything seemed to be okay.

These days, though, it seems like there's a much greater gap in the equilibrium. And that fundamentally the people in the developed world say, our standard of living is great. We like it here. It's going to continue at this level. And these people in the low-cost countries will eventually catch up with us.

But I'm not sure that that thinking is entirely correct. Because I would propose that why couldn't it be that the standard of living in the developed countries actually has to fall to meet the emerging standard of living in the developed world? And that the whole Keynesian idea that one has to inflate, and constantly inflate, is fundamentally wrong, I would propose. And that maybe the leadership should be that we should embrace deflation and try to lower our costs as much as possible and as fast as possible. And that that would inherently stimulate job creation.

Our observation in investing in countries around the world is that the companies that are actually growing the fastest right now are those that are selling products that actually lower the costs of their customers in some way, and that that's the way they deal with this kind of gap between the standards of living. So again, I admit that I'm probably confused. And I don't fully understand the macroeconomic stuff. But that's my question.

ROMER: Can I try to start this, at least, by saying, to draw the distinction between what, say, I've been talking about about short-run fiscal stimulus and standards of living? Because absolutely, standards of living are determined by fundamentals, by your technology, by how educated your workers are, by the amount of capital you have.

And that's the reason why standards of living in the United States are not going to drop. It's because what determines them fundamentally is not some Ponzi scheme where we keep doing deficit spending. It's the economic fundamentals. And the reason you'd expect the rest of the world to eventually catch up is that you want them to also be coming up with new innovations, or taking the state of the art innovations, improving their capital stocks, and educating their workers better.

And then in terms of the-- so all of that Keynesian-- and I spent my whole entire time in Washington trying to tell Larry Summers not to call it Keynesian policy because I think that made it sound old-fashioned. It's good short-run fiscal policy, is that when you have a demand shortfall, which for some reason is having incomes being temporarily low, that is something that can get you through that time and can try to get you back to your more long-run standard of living.

It's never designed to be something that you do year after year. And that's why I think you'd get incredible agreement on this panel that while it might have been a good thing to be doing, it might still be a very good thing to be doing, it can only be part of a plan where you actually are not trying to do it year after year, but are balancing the budget eventually.

GORDON: I wanted to take up the previous questioner using the phrase, expansionary fiscal policy inflating. There is a distinction between expansionary fiscal policy and the outcome for inflation. Which is, if anything, going to be slower as a result of excess capacity that motivated the fiscal policy in the first place. There is no connection between either government deficits, growth rate of the money supply, and inflation. It depends on whether the economy is underutilized or overutilized.

And that's extremely relevant to the widespread critiques of quantitative easing, which I'm not against, by the way. One critique was, oh, it's inflationary because it will raise the money supply. The reason the money supply isn't going up is because we have over a trillion dollars of excess reserves that the banks have decided they don't want to loan out.

I think it's his turn, isn't it?

CABALLERO: Where? Wait. It can be only if it's very, very short and requires a very short answer, because we're over--

AUDIENCE: I'll make this very short. In the current situation, where the incremental dollar of federal borrowing is coming from overseas, could we be in a situation where the international accounts are offsetting what we're hoping to get on the domestic side?

If we, on a bipartisan basis, increased spending and cut taxes $0.50 each, we borrow $1 from the Chinese, who sell us $1 of toys, which ends up netting out to no stimulus. Could some effect like that be going on, which would explain both why we might have had a little bit of disappointment with the effect of the stimulus? And that might indicate that cutting the budget in a more drastic way might not be as serious a problem as we would otherwise believe.

GORDON: Excellent macro. If you have some fraction of your GDP that is imported, that reduces fiscal multipliers. That's something I think we would all agree on. It's certainly in all of our textbooks.

AUDIENCE: Is it aggravated where we're borrowing money?

GORDON: We're not going to buy everything from China. We don't have a marginal propensity to import from China of 1. It's some fraction. It makes fiscal stimulus weaker than if we didn't import anything at all. But let's not go there because then I'm going to sound like a protectionist.

CABALLERO: Thank you guys very much. It was a very distinguished panel. It was a very exciting panel.

[APPLAUSE]