



CENTER FOR GLOBAL DEVELOPMENT

Presents

The First Annual Richard H. Sabot Memorial Lecture

***Harnessing the Development Potential
of Emerging Market Reserves***

by

Lawrence H. Summers

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[TRANSCRIPT PREPARED FROM AUDIO RECORDING]

Nancy Birdsall: Good evening friends. It's a great pleasure to welcome all of you. I'm Nancy Birdsall, the President of the Center for Global Development. Some of my fine board members apparently are glad to see me back at the podium. I'm so pleased to see all of you here helping us honor the memory of our dear friend, Dick Sabot. It's good to see old friends and some new friends too that Dick has helped bring together tonight very much in his spirit. You know Dick wore many hats. He was a tech entrepreneur, he was a farmer, committed to a new approach, new age sort of organic farming. He was a proud father, he was a distinguished academic and most important, in a way for me personally, he was a fine development economist. He was my good friend, a co-author and very important, a founding member of the Board of the Center for Global Development, and a very energetic, enthusiastic and wise member of the Executive Committee of the Board. As many of you may know, it's the Executive Committee of the Board that often does a lot of the real work.

So we're really pleased to see all of you here in his honor. This is the first in what will become an annual lecture series, and it is our way, having an annual lecture series, to keep the spirit that Dick brought to the Center, alive well into the future many years to come. I want to give special thanks to one of our Board members who took the initiative to get us going on this annual lecture series, and that is Bruns Grayson. I think it's a tribute to Dick that Bruns got to know him through their working together on the Board, and that Bruns was very anxious and energetic himself about ensuring we could keep Dick's spirit alive. Bruns, I wonder if you would stand up. And at the same time, let me thank the other members of the Board who have contributed to making this lecture series possible and to the many friends and family members of the Sabots who also contributed.

I also want to just say quickly, thank you now to Larry Summers who knew Dick, for agreeing to come with us. He came all the way down from Harvard in order to join us tonight, and I think it's a great way to start this lecture series, by having someone who knew Dick through Dick's work in development and knew him in part through his work at the World Bank. I am also very pleased to have so many of the Sabots here. Jude and three of four children, and other friends, and I want to introduce Jude, who will say a few words, and then soon after that, we'll get to the dinner. But Jude, would you say a few words for us?

Jude Sabot: Thank you Nancy. I'm really moved by your words and thank you to everybody for coming. I know the family feels deeply grateful and very honored by this tribute to Dick and know that he would be delighted, and also very, very honored. He valued his work in development economics and most recently, his work at the CGD and the Board and the Executive Committee, very, very highly. He would come back from meetings here very energized and even more enthusiastic than he usually was, so this is a very fitting tribute to him, and I just want to thank Bruns and Nancy and everybody and thank you all so much for coming. We, several other family members are going to say a few words too, but I just wanted to share a few lines of something that's probably familiar to a lot of you, but something that just came across my sight a few days ago that seemed to say so much about Dick, and I just wanted to read it. It's a few lines of a poem by Rainer Maria Rilke, and they are, "I live my life in widening

circles that reach out across the world. I may not ever complete the last one, but I give myself to it.” And he certainly gave himself to all of us and to everything he did. Thank you.

Nancy Birdsall: Thank you Jude. You see one of those circles here. Now, the maitre’d will go to the tables and tell you when you’re allowed to go and get your dinner, so that we don’t have one long line. So while we go through that process, I invite you to chat with your table mates, start relaxing, and eventually when you do have your dinner, go ahead and eat it. Thank you very much. We’ll be back later.

(Break for dinner, 50 minutes)

Ed Scott: My name’s Ed Scott, I’m the Chairman of the Center for Global Development. My job is to show up here occasionally and make brief remarks. I’m very happy to be here, I thank all of you for coming to this special event. I first wanted to especially thank our president for coming back. I know that Ruth Levine is very happy to see her, and we’ve missed you very much, although Ruth did an excellent job in your absence. In fact, Ruth did such an excellent job that the *New York Times* premier editorial writer Nick Kristof mentioned her book today, *Millions Saved*, and it’s one of my favorite books. I give it out every time I have a chance. Those of you who have not read it should read it. It’s the kind of stuff that really inspires people who are not wonks; it really talks about getting real things done by real people on the ground, and makes you think it can really happen. As usual, as some of you may know that Nancy, Fred and I are the co-founders of the Center, and one of the principles was that we would be incubated in this building, and one of the main benefits that we perceived right off the bat was the use of this fine hall. So I thank you, Fred, for making it available, and letting us dine at Chez Fred. It’s always a great pleasure.

This is indeed a very special occasion. Dick Sabot was a good friend to all of us. He was the first board member we recruited after Fred, Nancy and myself. As Nancy certainly remembers, she took me to this little restaurant up in Connecticut and we convinced Dick that he ought to sign up, and he agreed to do so. Right from the beginning his support and his counsel and his wisdom and his good cheer were a very key ingredient in the functioning of our board and our executive committee, and we all miss him very much. One of Dick’s sons, Oliver Sabot, who will come up here in just a minute and make a couple of remarks has immediately followed in his father’s footsteps, and works for another one of my enterprises, did work for another one of my enterprises for quite a while called The Friends of the Global Fight. Now Oliver works for the Global Fund to fight AIDS, TB and malaria, and he’s distinguished himself just as his father had before him distinguished himself. So I know both Dick’s sons would like to say a couple of brief words about their dad, and so without any further delay I’ll invite both Oliver and Topher to come up and speak about their dad.

Oliver Sabot: Thanks Ed, for those very kind words. As many of you probably know, Bill Easterly has just come out with a new book, which he has titled *White Man’s Burden* in reference to the motivation that drives many of us to work in the field of development—well-meaning, but perhaps misguided, as he would argue in that book. That is not what motivated my father to work in the field of development, and to work on global poverty. And for me there are two

moments or two aspects of his being and his passion for development that stand out that I wanted to just briefly mention today.

The first is just a short story, in which I remember very vividly: a few years ago we were sitting at the dinner table and we were discussing politics. I mentioned I had run into someone on the streets of Washington and had this animated discussion in which this person expressed these extremely radical conservative views that I passed on to my father, and he got very animated in rebutting these views. And I dismissed him and said, “You just, you shouldn’t take these people seriously.” And he, he turned to me and looked me square in the eyes and said, “I take everyone seriously.” And for me that’s something I remember very strongly, because it’s a sense of respect for every human being, a sense of respect that everyone deserves the same opportunities, no matter what their beliefs or what their background, and that’s one of the major things that, that drove him to do the work he did for so long.

The second aspect that I just wanted to briefly mention comes in his own words. Shortly after his death, I was rummaging around his study and found an interview he did in 2002, and it was 20 pages of his words about a variety of subjects including his work in development. And so I’d like to just read very briefly two segments from that:

“It is important to be humble in the face of your accomplishments and recognize how much luck played a role in these achievements. It was not because of anything that my family did that we have been blessed with these qualities that enable us to thrive and enjoy life and live free of chronic pain and excel. We are blessed. And when you recognize that those blessings they are mostly by chance, there emerges a moral obligation to act on behalf of those who are not as lucky, not as fortunate. But it must be done in a way that is not condescending. It is not noblesse oblige; it is not attempting to bring enlightenment to the un-beknighted. It really should be done out of a sense that but for the grace of God there goes I, to actually be able to see yourself in the shoes of those who are less fortunate.”

And that, I think uh, really sums up well what drove my father to spend so long working on global poverty and development, and to devote that passion most recently to the Center for Global Development. And with that I’ll turn it over to my brother. Thank you.

Topher Sabot: Oliver did a great job of summing up my father’s commitment to his work in the international development community, and I just wanted to say a few things about a very small, localized development project that he was working on very recently, which was his farm in Williamstown. And I found that project had a lot of parallels to his development work, and it really illustrated his passion and his never-ending optimism in the face of often dire obstacles, and his willingness to learn and to tackle new projects. To be 60 years old and to decide to become a farmer, no matter how much you love tractors, I think is a big step. And it’s very exciting what he accomplished and what we’ve continued to accomplish since. And we’re milking 31 cows, and we’re going to start making cheese. And like this lecture series, which is a testimonial to him and his work, the farm is that too. I think that’s a nice parallel. Thank you.

Ed Scott: Thank you very much. The next person to speak will be Bruns Grayson, and he’s going to introduce our featured speaker. Bruns is a member of our board. He and Dick

Sabot and I shared the fact that we all spent a couple of years going to university in Great Britain, which did more for some of us than it did for others. And you can make your own judgments as to who got the best deal, but Bruns has been a good friend of mine. I've known him since he was a graduate student, and he's now a very successful investment banker, and he will tell you a little bit about his colleague, Larry Summers.

Bruns Grayson: I'm going to miss Dick Sabot. In addition to all his other qualities he was a sweet guy and he was funny. And it was a joy to have him at these meetings. He would've been pleased that Larry Summers, for the past 56 months President of Harvard, the youngest Ph.D. in economics ever there, and former Secretary of the Treasury, was going to speak to inaugurate a series of lectures named after Dick. And I'm going to start in a sort of odd way. I'll certainly catch Larry by surprise, I think, and that is by saying that he reminds me of another president, and he has for the past five years, and that would be President Reagan. Now where this thought first came in my head was this: I was watching a show on PBS and John Chancellor, in 1990, had a very cool show that he put together, which was all the then-living ex-campaign managers of every presidential campaign. So, Susan Estrich was there, and Lee was there, and it went all the way back to Goldwater, Kennedy, Johnson, and it was essentially a war stories show.

But what struck me was that Gary Hart, at a certain point, was asked his opinion. And he ran McGovern's campaign, you'll all remember, what made great politicians and how it worked. And he said, "A politician has to run on a platform and then govern on a platform of powerful ideas that resonate with all those who are being governed." And he said, "Reagan said, 'You are interfered with by the state, by the government,' in his word, too much. 'It has become an encumbrance, and it has to be removed from the obstruction that it creates in obstructing your natural creativity, and we have to unleash your energies, and I intend to reduce its role in your life. You're too taxed, and that will allow me simultaneously to starve the beast, which is the government. If I reduce your taxes and you're poorly defended, particularly against the Soviets, and I intend to see that you're well defended.'" And Hart said, "Now, you may think that these are insane kinds of goals, but what you can't argue is that they are not powerful ideas. And you can't argue that they didn't resonate with the populace, and you also can't argue that the guy did not try to govern in that fashion once he was in office."

So here's what Larry Summers has said in every speech I have heard him deliver, up to and including his commencement address of the class of 2006, which Lucy Grayson belongs to, and which Larry claims, I'm very happy to say, as his own class, since he overlapped with them completely. And there are these three ideas: that the university must be a powerful force for opportunity and advancement for all parts of America and the world; that the university must reform its curriculum, and in particular strengthen its position in sciences so that its leadership intellectually is undisputed and clear, and something that the nation and the world can regard as a beacon to all others; and that the university's students and graduates should not merely be permitted, but exhorted to participate in public life in all of its forms, but especially those involving international study and work. Now those I think were Larry Summers' great themes, and I never heard him make a speech in which those were not adverted to for the last five years.

Now there he starts to kind of drift away from the Reagan parallel, because his display of a mastery of detail, and his fluency with facts and numbers, and a certain more nuanced approach to the subject matter was pretty evident whenever he was covering one of these topics. His accomplishments, under each of these main headings that he set for himself, were considerable. Financial aid is more easily available and Harvard has attracted more poor kids from all over this country and from around the world as a result of his efforts. Study abroad has become instead of what it was in my time, which was—Michael, you will appreciate, you had to prove the negative—that nothing at Harvard was available to you that was equal, that could be equaled anywhere in the world, and in fact had to be exceeded. So you couldn't, in other words, and you didn't, go abroad. That has blossomed under Larry. And Harvard is on the road to leading in all forms of life sciences, and there are important initiatives that I just don't think will be reversed. He leaves with a good deal not done, not nearly as much as he would've wanted to get done. But I don't think he ever would've left with everything he wanted to be completed done.

Larry Summers has been a great force, a source of restless and unwanted change in a lot of cases. Someone admired by college students and someone meddlesome to some portions of the faculty. He moved through this place these nearly five years like a man pushing something invisible in front of him. The corners of the university which had been quietly moldering away got a blast of light and air that I think will stop, or I hope will stop, a good deal of the rot that was taking place. Larry talked a lot, and he talked too much sometimes in my opinion, but he wouldn't have been Larry Summers if he hadn't done that, and he wouldn't have done nearly as much as he did if he hadn't been Larry Summers. You may be able to tell I'm an admirer. My daughter is an admirer. My two other daughters, one at Harvard and one coming next year have been influenced in their opinions about Harvard by the activities that Larry Summers has undertaken. Lucy sent an email to her two sisters and my wife wanting to know if dad was on suicide watch after Larry resigned. Yeah, I was, but I'm off it.

I hate the idea that he won't be there because with Larry Summers there was another great theme, and in this sense he was, again, kind of like Reagan. Reagan constantly told all of us that we were a great people, that we were founded on great ideas, that we deserved government and leadership that was worthy of us. And Larry Summers believed that Harvard should be worthy of its great pool of talent, and it should strive constantly to live up to its wealth and its fame, that it should bring light to its own people and be a beacon to the world. And to me these are the great, enduring principles of American internationalism. To use power and wealth to propagate ideas and solutions which may benefit all in a vigorous, open-handed, generous, inventive and practical way. And I take comfort in the thought that Larry Summers shares such beliefs, and I take comfort that whatever else he does next he will act on it.

Larry Summers: Bruns, thank you very much for that introduction. I'm touched by it. I'm struck that while I suspect you may not agree with some of my critics on the Harvard faculty with respect to very much, you actually probably are very much in common with them in seeing me as the next incarnation of Ronald Reagan. You and they may regard that somewhat differently, but I think you do have that very much in common. It is a great honor for me to be here, and to be the first speaker at a lecture series named after the late Dick Sabot. I didn't know him well. I knew him mostly through the enormously enthusiastic things that Nancy said about him during the time that Nancy and I worked together at the World Bank, and I knew well his

work on education of girls in Pakistan, which was an important inspiration for my own efforts in urging girls' education around the world. He lived a life of great contribution, and it's a little bit daunting to be standing here tonight in his memory. He was committed to this institution, the Center for Global Development, and he was right to be committed to this institution, and you are all right to be committed to this institution.

Right, I would suggest, for two reasons; right because ultimately if Keynes was right in his era when he said that everything that any policy maker did was the distilled frenzy of an academic scribbler, in today's more harried times most everything that any policymaker does is a modified and confused version of an email that came from a major think tank. And institutions like this one and the ideas and the discussions that they generate have an enormous impact on the policy debate in this country and far beyond. And he was right to be committed to this institution also because while the concept of an institution like this one is an enormously powerful one, it is a concept that is sometimes executed better, and it is a concept that is sometimes executed worse. And with Nancy Birdsall's superb leadership and the superb team that works here no one would suppose that the Center for Global Development was only 4½ years old. No one would suppose that it did not have a staff four times as large as the staff it in fact has, and it is a remarkable success. It is an institution that is worthy of Dick Sabot's loyalty, and it is an institution that is worthy of all of our loyalty. So let's thank Nancy and all the people. This is an, this is an important—

Nancy Birdsall: Larry said he'd come and fundraise for us.

Larry Summers: No, no. No, no. This is important too, because I believe, and I said this many, many times at Harvard, that when the story of our time is written 300 years from now there will not actually be very much in the history books about our time. Think about how much you actually can locate clearly in your mind as having happened between 1700 and 1725. And I'm convinced that the primary political and economic story will surely be what is happening in the developing world and how the United States reacts.

On the positive side it will be the story of the fact that for the first time in all of human history it is not implausible to imagine that 1/3 of humanity lives in nations where living standards will rise by 30-fold or more in a single human lifespan, something that dwarfs the impact of the industrial revolution. And yet also words like AIDS, Darfur, remind us, global warming, remind us that what happens in the developing world is not without enormous risk and consequence, not just for the people who live in the developing world, but for the security of all of us who are fortunate in the way Dick Sabot described so eloquently in that interview. So there's really nothing more important to think about and to work on than the global development challenge.

And it is an irony of our moment, for those of us who are concerned about the global development challenge that forms the basis for part of my remarks tonight, and that is, and this is where I start, with this observation: If you were on Mars, and you had not seen planet Earth, but you had studied economics, and someone said there are these countries, there are these substantial number of countries that are growing at 4, 5, 6, 8, 10 percent a year that are relatively poor, where several billion people live that have rapidly growing populations, and there are these other countries that are rich, aging, growing at 2 percent a year, 3 percent a year, 4 percent a year

perhaps, with slowly growing populations, and you had been asked to predict which way the flow of capital would be taking place, it would not be very difficult to figure out that the flow of capital would be very substantially from the rich, labor-short countries to the poor, labor-long, capital-short, rapidly growing countries.

Only one thing – it is the central, global financial irony of our times, as the first little picture on the handouts that I hope are in front of you illustrate, that the flow of capital is actually very substantially from poor countries to rich countries, and in particular it is from poor countries to the world's richest and most powerful nation. On a scale never before contemplated or seen. And that is the first great irony of the global financial system at this moment.

The second great irony is that this is not a phenomenon of capital flight. This is not a phenomenon that reflects the fact that people have made fortunes in Venezuela and they sensibly desire to diversify. Instead it is in the largest part the counterpoint of very strong and very substantial actions of governments to choose to accumulate very substantial quantities of U.S. government debt, as the next picture illustrates. And if one did this for the next year, and it draws on Brad Setzer's work, which I find to be the most thorough in making a variety of adjustments for how the Saudis handle their oil money, and how the Chinese handle various banking funds and such. Almost all of the U.S. current account deficit can be matched against increases in the reserves of developing countries. Note that by 2005 the portion that is attributable to the Japanese, unlike in earlier years, is actually very small. And so the ironies are not just the irony that capital is flowing on a substantial scale, but that that capital flow reflects the policy choice of governments to invest huge and growing sums of money in American financial assets.

The third observation that I would, that I would make, that defines this moment in the global financial system is that no one could suppose that these are going to be high-return investments. No one knows just what the future holds for inflation, no one knows just what real interest rate will be earned on U.S. Treasury bills. If one supposed that yields on short-term instruments were in the 4½ percent range and that inflation was in the 3 percent range it is unlikely that one would go wrong. If one looks at short-term indexed bonds, they are running still below 2 percent, suggesting that real interest rates on U.S. paper are at 2 percent.

Now no one can predict with certainty what the future of the [inaudible] will be. No one can predict with certainty what the future of the Saudi currency will be. Nobody can predict with certainty what the future of uh, the ruble, or the Indian rupee will be. But almost everyone who thinks about the question is of the view that those currencies sooner or later, and perhaps later than sooner, will appreciate. If one supposes that those currencies will appreciate by 10 percent over the next five years, which is chump change compared to Fred Bergsten's periodic pronouncements on this topic, then the real, then the real return that will be earned on this several trillion dollars growing by \$800 billion a year, by those who are investing it, will be zero. This in societies where hundreds of millions of people are still desperately poor. And that, I would suggest for anyone concerned with the future of the global financial system, has to be the dominant preoccupation in this moment.

Now there are two profound questions that it raises, and one nearly free lunch that it suggests. I want to speak very briefly about the two profound questions, and then at somewhat slightly greater length about the one free lunch. The first profound question that it raises is, is this sustainable? Is this gonna end well? Suffice it to say that one cannot rest assured that it will be ultimately sustainable or will end well. Every known test for whether a current account deficit is a serious problem, its magnitude, its rate of change, its relationship to consumption or investment, composition of the economy between non-tradables and tradables, the maturity structure of the debt, the role of the private sector, all suggests that this current account deficit of the United States is an ominous one.

At any moment when people calculate that even a very conservative version of Fred's views are right, and that the dollar needs to fall by 15 percent over a three or four-year period, if one thinks about the various interest rate configurations that involve U.S. interest rates, 300 or 400 basis points ahead above foreign interest rates, it is not a pretty thing to contemplate. All serious financial crises, I hesitate, I shouldn't have said that, I know if, I know from several years of working with Ted Truman that every time I proposed a sentence that included the word "all" I was instantly corrected and so I will instead say the canonical financial crisis involves as a critical element a situation where a central bank has one instrument, it can loosen or tighten, and it is confronted with two problems: a sharply declining currency which calls for reducing the supply so as to raise the price, and a severely slumping domestic economy and failing financial system which calls for easier monetary policy.

You can argue, as people do and have, about what the right response is and which one should get priority, but if you face that choice the outcome is not going to be good, and the United States is surely taking a great risk of facing that choice. And so the first profound question is how is the United States going to find the political will and take the necessary steps to raise national savings and work through this serious problem. But that is not my primary topic tonight. Nor is it my primary topic tonight to address what this adjustment process means for the developing world. Suffice it to say that the United States increasing national savings would be an event that would be associated with a reduction in global aggregate demand, that it is also the case that the United States increasing national savings, if that were associated with a decline in the dollar, would be associated with expenditures switching towards the United States and away from the rest of the world, and that despite this remarkable level of U.S. dis-saving and borrowing, global real interest rates are low rather than high.

All of that suggests that whether it is thought of as Ben Bernanke's savings glut or in my judgment more plausibly as an investment drought in the developing world, any healthy adjustment process raises very serious questions as to how aggregate demand is going to be maintained in the global economy so as to drive the global economy forward. That is an enormous task for economic coordination and for global economic policy, and for those who are interested in a fuller set of my speculations on it I'd like to refer you to the lecture that I gave in Mumbai. Instead what I want to talk about at more length this evening, is what seems to be to be an almost free lunch.

And that comes from the question of how these reserves that are being built up are invested. I want to be absolutely clear before I turn to that, that no investment strategy for those reserves

mitigates the very legitimate concern that go to the imbalances that are leading them to increase by hundreds of billions of dollars a year. Nonetheless, if you turn to the next chart you find a set of numbers for developing countries that are I think quite striking. There is an important question, and it is a question on which whole symposia could be and have been held, which is how much reserves does a country need to be secure in a world of volatile global capital markets, and how does that level of reserves vary with the economic conditions in the country, both in terms of the quality of its financial system and in terms of the degree of confidence that it has. And there is no definitive answer to that question. There is an older tradition from a time when capital flows were not seen as important, that focused in looking for a denominator in looking at reserves figures on the level of imports and suggested that a healthy country would have three to six months import cover in reserves. There are a variety of formulas that people have used, and this is a subject that's actually worth much more attention than I'm going to be able to give it tonight.

Probably the canonical and best single measure on which international financial authorities would agree, although in any individual case it no doubt would need to be nuanced in many ways, is what's been called the Guidotti-Greenspan rule, the suggestion that a healthy level of reserves is enough to cover all foreign debt coming due in one year. To be sure it can be argued that it is too low, so that it is an excessive measure, it's a one-year interruption with no rollovers, it's something the world has virtually never seen. It can be argued that it is too high, since one could face pressure to convert a very substantial level of resources from domestic currency into hard currency. So I hold no brief for the rule with precision.

What the next two figures illustrate is that reserve accumulation has gone way beyond anything that can be justified by the plausible need for preventive financial action. Notice if you compare the excess reserves beyond short-term debt due within one year to the next figure, which is a, which tries a hypothetical, hyper-conservative rule, which is double short-term debt coming due, what you see, if you look at the right edge of the figure, is the short-term debt coming due is about \$500 billion. In other words, most developing country reserves are in excess of what is necessary, according to the Greenspan-Guidotti rule. I should say also that this is a figure for 2005, Quarter 3. If we updated that figure for today it would be well in excess of \$3 trillion. It is, I would suggest, difficult to escape the conclusion that domestic country reserves are, developing country reserves are far in excess of what is necessary to defend against the possibility of financial crisis. They certainly dwarf, in some cases by more than an order of magnitude, any imaginable IMF program. And so to the extent that they are being held so as to obviate the possibility of receiving an IMF program they are several times, for many countries, resources that would be conceivably imaginable from the IMF.

While these resources are usually thought of as reflecting primarily a number of emerging market countries, and are usually thought of as reflecting primarily what is going on in Asia and what is going on with the oil countries, you look at the next two tables, which I will not talk about in any great detail, what you see is that this phenomenon of excess reserves relative to the scale of the economy, turn to the second of the tables, where countries are ranked by their excess reserves as a percentage of GNP, the countries that have the largest amount of reserves are not in many cases the countries that have the most inordinate level of reserves relative to their

economic scale. A number of nations in Africa stand out for having extremely high ratios of reserves to GNP beyond whatever short-term debt is coming due.

So I would ask you to conclude with me, so far, that the level of reserves is far in excess for many countries of what is necessary to meet short-term liquidity needs or to prevent financial crisis. Now one whole line of discussion, which is not the line of discussion that I'm engaging in today, is whether it's prudent to be accumulating these reserves at all, and one would be better off not intervening and allowing appreciations to take place. That is a very good question. Even if it were to happen for, even if it were to happen overnight these countries would still have very substantial levels of reserves. And so the question that also naturally arises is how should those reserves be deployed?

We have an international financial architecture and an international financial system and modes of thought that go with the misguided intuition of that hypothetical economist on mars with whom I, who I referred to in beginning these remarks, that is focused on the problem of transferring capital from the industrialized world to the developing world at a time when much of what is going on is the accumulation of very substantial reserves by developing countries. What is the loss here? Imagine that countries took these excess reserves and invested them in a diversified portfolio of equities from around the world. It is a, remember, I'm not talking about investing all their reserves. I'm not talking about it as preventing any reserve that would be necessary for one bit of short-term debt. It is an interesting and important argument what the expected risk premium, the expected excess return on a portfolio of global stocks relative to a portfolio of short-term financial instruments would be.

The historical data for the United States would suggest a risk premium of about 6 percent. There are reasons to believe that the United States has been a fortunate country by the standard of history, that there has been some inflation in multiples that took place over the last 60 years that's unlikely to take place again, and so 6 percent is probably a high number for the risk premium. On the other hand there are reasons to think that investments in emerging market equities and rapidly growing economies will be may well have over the longer term substantial, uh, returns that are substantially greater. Forced to make an estimate, and I would not defend the precision of the estimate, 5 percent as a risk premium seems not unreasonably optimistic if one assumed that investments could also be deployed in ways that produced extra returns beyond those that were attainable by simply investing in a global index fund in the way that U.S. state pension funds aspire to or U.S. university endowments aspire to. That 5 percent figure would be conservative.

Think about it. If a country is able to deploy 10 percent of GNP in a way that produces an extra 5 percent return, that is half a percent a year in free money to the central government. That is a number that compares on a global scale rather favorably with the magnitude of IDA. It is a number that in many countries compares, is not insignificant relative to federal contributions for healthcare or education. It is a number that in many countries half a percent GNP is in excess of the level of spending on combating, uh, AIDS, and it is potentially available simply by investing resources more aggressively.

Now there are I think two major sets of questions that this idea raises. The first is does it involve taking excessive risk relative to what is prudent for a country over uh, the longer term? And it seems to me there are three ways to address that. First is simply to take a long-run view of the calculation, recalling that we are not talking about the reserves that are potentially needed to meet short-term liquidity problems. The standard deviation of the global index portfolio that I described is about 15 percent a year. That means that that standard deviation of the return over a 25-year period is about 3 percent a year. It follows that the probability that you will come out ahead after 25 years by investing in stocks rather than investing in Treasury bills is about 90 percent. If one uses the alternative calculation what are the odds that one will come out positive in real terms on the investment, recognizing the 2 percent real return that you could've earned on Treasury bills, the probability is about 99 percent. And so over the long run the odds are overwhelming that this is an investment that makes sense.

The second way of seeing the same point is actually to recognize that this is a problem, this is a challenge that governments, on a unified basis, have, that is not enormously different than the problem that state and local governments in the United States that to face substantial pension liabilities. What responsible state and local government in 2005 would decide to meet all its pension liabilities simply by investing in Treasury bills because they were safe? And wouldn't that be regarded as an act of financial imprudence rather than an act of financial prudence? And to be sure the fiscal liability of pension burdens is both shorter in duration and more firmly contractual than the reliance on central bank profits to be transferred to governments.

A third way to look at this is to ask how much of that 5 percent return would you have to sacrifice in order to guarantee that after 25 years you were not behind in nominal terms? And my estimate, is that you would have at least to sacrifice less than 100 basis points of those 500 basis points to guarantee that at the end of 25 years the return in U.S. dollar nominal terms would have been at least zero. Moreover, the risks associated with the performance of the global stock market, for most developing countries, are not likely to be highly correlated with their own domestic economic performance, making the risk-aversion argument against this step somewhat weaker. The reserves are large. The potential increment from more aggressive management substantial relative to sums that are sought, the risks appear to be manageable. Why doesn't this happen?

Well the first part of the answer is that it does happen in some places and is starting to happen more. What I've been advocating is essentially the financial management strategy of Singapore and Norway, and I'm told that similar plans are underway in Korea. That's one part of the answer. An important part of the answer is surely that this is both staggeringly counter-cultural for central banks and runs into major agency problems.

The essential agency problem is that if I am the central bank governor of developing country X, and I decide to adopt the new "let's invest in risk assets" scheme, and we have five good years and we earn a cumulative 46 percent rather than the cumulative 22 percent we could've earned in Treasury bills, I will take great satisfaction in having earned the 24 percent. My finance minister may say, "I'm glad that you did that." At my retirement dinner as a central bank governor perhaps my innovation will be noted and will be applauded. If on the other hand over my five-year horizon I invest in risky assets and I end up behind, I am likely to lose my job and be

humiliated. And so while the national interest may be in taking risks of this kind, the individual incentives for the bureaucrats in central banks who cannot be highly incentivized to do this, and can be highly penalized for failure are likely to be quite substantial. So I suspect the first reason this has been slow to happen is the rather substantial, uh, agency problems that are involved.

The second reason, which doesn't seem to me to be a good reason, but is very much an understandable reason, is that the suggestion that I have made is fraught with slippery slope, uh problems. It's easy to defend the rule. We don't speculate with our reserves. We invest our reserves in short-term, safe, liquid instruments because we need our reserves to be short-term and safe. It's clear, it's obvious, it's not very sensible, but it is clear and it is obvious. Once one admits of investing in risky assets, well, you know, we could always sell them if we needed to, so why don't we only keep six months short-term debt?

You know, if you invest in the stock market you earn a 5 percent premium, but if you lever your investments in the stock market then maybe you'll earn an 8 percent premium. Well the stock market's good, but you know, active management is really even better, and you know, I was at the central bankers' meeting, and you know, I'm just sure that Trichet's gonna do things that are gonna make the Euro go up, I'm just sure he is, so why don't we just kinda speculate that way? The argument I'm making does admit major slippery slope problems, and that's why it is rightly viewed with very considerable caution. On the other hand, I would remind you that we are talking about \$2 trillion, 5 percent of which is \$100 billion a year, and that finding ways of controlling slippery slope problems seems in order when we are talking about sums of this magnitude.

All of this is to say that I believe that those of us concerned with the global financial system, even as we worry about the magnitude of imbalances, can profitably concern ourselves with the question of how reserves are invested, both in large countries that have huge reserves and in small countries that have reserves that are huge for them relative to their incomes. At a minimum the kind of efforts that are underway on a small scale today in which the international financial institutions provide technical assistance in reserve management should surely be extended on a significant, uh, scale.

A second step would be the development of codes of proper practice and prudent man rules for investment in reserves that would serve the dual function of giving a cover to the courageous bureaucrats who pursued the kind of policies I'm saying by saying that this isn't my flaky scheme, I've just invested according to the international best practice, uh, sanctioned by the group of central bankers meeting in conjunction with these international financial institutions, and by establishing a firm set of rules and best practices would also provide the possibility of controlling the slippery slope problem, by giving central bankers something to point to when their political masters suggested that they juice up the aggressiveness of policy in order to provide revenues. And so there is surely a case for establishing best practices and legitimacy in the international community as a second step with respect to this problem.

A third and more adventurous step would be for some international entity to be prepared to take on some kind of fiduciary responsibility for handling the management of these reserves on behalf of countries. Such an idea might provide further legitimacy, might provide a means for

controlling what would otherwise be the non-trivial control problems once you have somebody in charge of actively managing reserves, and given the sums of money involved, remember I was talking about up to a trillion dollars if such an entity charged a, only a very small fee, would generate resources that would not be small compared to the resources currently available for the promotion of global public goods. Now this idea has been caricatured as the IMF should set itself up as a hedge fund. I want to be absolutely clear that that is not my intent, in the same way in which it was once explained to me that the success of the Harvard endowment's management over the years came from many things, not least the absolute independence of endowment management from the views of members of the economics department.

In the same way the last thing I would counsel would be that the IMF establish itself as a hedge fund. Nonetheless, one can envision the relatively mundane, yet important task of managing reserves into an indexed global portfolio being something which some kind of international public cover could be provided potentially to uh, very great, uh, advantage. Let me conclude where I began. It is an oddity of our moment that the flow of capital is so large from developing countries to developed countries. That oddity is likely to be with us for some time. Several trillion dollars are now being held by developed countries in forms where they will earn close to zero in their domestic terms. I will serve my purpose tonight if I've gotten you to think about the fact that there is there, potentially, a very substantial opportunity to make developing countries and people who live in them better off by doing better than earning zero. Thank you very much.