## GENERAL DISCUSSION The Second Phase of Global Liquidity and Its Impact on Emerging Economies

**Ms. Reinhart:** So let me see data-wise if I understand what you are saying. There's a pocket of relatively well-documented activity in the domestic banking sector, there's a pocket of relatively well-documented activity in what one would classify as classic external debt, but there's also this quasi-domestic securitized debt market that's a claim on reserves, that's sort of in the netherworld, and that is where you think the real action is going to come from.

**Mr. Shin:** I like this comment. So we care about what happens at the border because that's a very natural unit for thinking about decisions of various actors. What I'm claiming is that now that's no longer a very useful unit in thinking about decisions, because corporate balance sheets now straddle the border. As you rightly point out, these actions are now a claim on reserves. This is one of the first things that Raghuram Rajan said we need to look at when he went to the Reserve Bank of India. We have to look at this larger universe. How you track it is going to be much more difficult. So one of the things you do is look at Bank for International Settlements data on cross-border claims. The other way is to track the money stock, because it gives you a sense of what the claims of the very active players are doing in the domestic financial system. Now what you do about it is a very difficult question. How on earth are you going to deal with this? These are nonfinancial firms. With banks you have a chance, with nonfinancial firms it's just much more difficult. So I don't claim to have an answer on what to do.

**Mr. Plosser:** I just want to follow up on why you think this change is taking place. One way of thinking about it is that the actions of policymakers around the world have set incentives for this type of change in financial activities to take place. So, is there a way to think about whether or not this is endogenous or exogenous? And if it's endogenous, why, and what do you think is driving it?

**Mr. Shin:** Well various people have done surveys of these nonfinancial corporations. For example, the Hong Kong Monetary Authority (HKMA) has conducted surveys of these financial firms and asked them, Why do you borrow so much? And the answer is, it's a great time to borrow, the conditions are so

good. So essentially the answer is that they borrow because they can, and we don't normally ask what they do with the money. What this suggests is that we should be spending a lot more time asking what on earth these firms do with the money.

**Mr. Plosser:** But it's also important to ask why this is such a good time to borrow money.

**Mr. Shin:** Well, if you just look at the sums, before May 22, 2013, there was insatiable demand for any kind of emerging market paper, and it's aided and abetted by various market players. There are sales-side people, but it's the asset managers who are just loading up on this in huge amounts.

Mr. Plosser: Does this have anything to do with monetary policy?

**Mr. Shin:** I suppose interest rates do have some effect. Reaching for yield has consequences, I would say that.

**Mr. Gourinchas:** So I guess my question is going to follow on the previous one. It seems that for a long time we were worried about emerging market economies borrowing in foreign currency and about original sin. In recent years we've convinced ourselves, perhaps wrongly, that original sin was not as much a problem as it used to be because there has been a development of local currency bond markets, so we don't see as much of a currency mismatch. And you're telling us that if we look more closely, there might be just as much currency mismatch, not on the bank balance sheets but on the nonfinancial corporate balance sheets. We didn't have good models of what was at the root of the original sin in the first place, so why would countries borrow in foreign currency when they would be exposing themselves to these balance sheet effects if there were a crisis? I'm connecting a bit to Carmen's paper presented earlier today—it might not make sense for a corporate that's borrowing nowadays to borrow in foreign currency. Instead, if it were hit by an aggregate negative shock, something like U.S. tapering, it would be easier for a borrower to think if they are sitting on billions of dollar reserves, that it's going to be easy for them to have dollar liquidity so they don't have to worry about currency risk.

**Mr. Shin:** I think that would be a subsidiary concern. These are nonfinancial firms, so they would not be the first in line to receive dollar liquidity. Although in India, exceptionally, they did do that. But I think the primary reason is that this is a great way to beef up your bottom line. If you have a currency mismatch and you're sure the renminbi is going to appreciate, what better way than to use currency movements to make a fast buck? For exporters, as well, you could give

a more benign story, that they're trying to hedge their currency exposures if the invoicing is in U.S. dollars. But, as you know, the line between hedging and speculation is very blurred.

**Mr. Wolf:** It's late at night and I've been up a long time, but I am very confused. The two examples you gave seem to suggest that these are ways around exchange controls. It has been obvious for some time that exchange controls are porous, and one of the ways companies are getting around them, obviously with the tacit connivance of their authorities, is to set up subsidiaries in London. But is that a central part of the story, or since you gave Brazil in there, is it not? And the second question I had . . .

Mr. Shin: Brazil is also one of these cases.

Mr. Wolf: I thought Brazil didn't operate exchange controls in the same way.

The second question I had is, what's the systemic risk here? Okay, lots of nonfinancial corporates are doing bank speculative-type things, they borrowed bonds that are relatively long term. If this goes wrong there may be a lot of corporate bankruptcy, depending on how leveraged the corporates are. So we have lots of corporate bankruptcies in emerging economies and the asset managers who are not leveraged will lose money. They will report to the people who put money with them that things didn't go as well as hoped. So what? Tell me why I should care.

**Mr. Shin:** That's exactly the kind of reasoning that I wanted to push back against.

Mr. Wolf: I knew I was wrong.

**Mr. Shin:** We tend to think of leverage as being dangerous because it leads to failures but I would say that leverage is especially dangerous when the leveraged players don't fail. So how on earth did they avoid failing? It's because they were cutting back. I think the mechanism is much more direct than through banking sector credit contractions. Here it's going straight to the yield curve, and as soon as the yield curves steepen, capital expenditures drop like a stone. So you're going to see investment cut off, and growth will just plummet. And so we care about financial stability not only because of failures, but because it's about economic outcomes. It's about the macro economy. This is saying we can just bypass the banks and go straight to the economic outcomes. And you can see the shades of this also in the United States. When mortgage rates jump by 100 basis points, it has an economic impact. That was one of the reasons the

Federal Open Market Committee gave for thinking twice about the tapering in September. So anything that happens here, you can think of this being magnified several-fold in emerging economies.

This is not a scenario that's very familiar. These are very unfamiliar problems, and I think it's more important than ever that we have a very clear mind about what really matters and what the mechanisms are. We have developed rules of thumb to help us, but some of the rules of thumb are not very useful. So if we just look around for leverage in the banking sector, that's exactly the wrong thing to look at because that is not the mechanism I claim is going to happen.

Mr. Wolf: But it is leverage in the nonfinancial corporate sectors.

Mr. Shin: Yes, but as you say ...

Mr. Wolf: If they had borrowed very little we wouldn't worry.

**Mr. Shin:** Well remember, it's what they do that we care about. So they're cutting back. Yes, they are leveraged, and it's in the form of corporate bonds rather than bank loans. But they're not 30 times leveraged, as banks are. Their leverage is much lower, but they would nevertheless behave in ways that would actually amplify these kinds of stress.

**Mr. McKinnon:** I like your analysis. You say that phase one began with a cut in interest rates in the United States to 1 percent in 2002, and phase two with the cut in December 2008 to zero percent, and you document very well that both set off waves of hot money. But the same thing happened in the 1970s with the threat of the Nixon shock in the form of a dollar depreciation, there were massive hot money outflows from the United States in 1970 and '71 that caused the great inflation in 1973–74. And then it happened again, there was a phase two when the Jimmy Carter Administration tried to talk the dollar down against the yen. Then there was another big flood of hot money that caused a second wave of international inflation in 1979–80, until Paul Volcker had to come in and rescue the situation. So there was the same thing, two phases then just as there are now.

**Mr. Shin:** I did read your 1982 paper. But by the way I should say that the paper and the charts are on my home page. And the ones that I've posted have fewer typos.

**Mr. Yen:** So my question is, why do government and nonfinancial corporates hold so much in liquid foreign assets and also borrow externally? After the

Asian crisis, emerging market economies turned themselves from debtors to creditors, and they have managed liquidity by accumulating foreign reserves that are typically dollar-denominated. So when the exchange rate changes, they have a currency mismatch problem. So to balance their assets and debts in terms of currency, many governments and firms borrowed more abroad in dollars, particularly when interest rates were low, in order to achieve better currency matching.

**Mr. Shin:** I think John is a bit restless because of the time. Time for one more question.

**Mr. Calvo:** I wonder if I can take you back to monetary policy. When you look at what happened in developed markets, the central banks thought they were facing regular conditions and pushed the interest rate down to zero. After doing that, they looked around and said, Let's do something else because this is not enough. What they learned was that this was not a standard depression or recession, but a financial crisis that hit the credit market in the face. So my question has to do with monetary policy looking forward, if you are faced with this kind of credit shock. Reducing interest rates plays two roles in this situation. One role is the standard one of lowering the cost of borrowing. The second role is that lowering the interest rate on very liquid assets creates incentives to search for yield. I don't like that expression because it's not a search for yield in my mind, but rather for things that are very liquid. So by pushing the interest rate down to zero and doing something that we know little about, central banks created the incentives for the sort of things that you're now describing. The alternative would have been, when you notice that the brake is not working in your car, you use the handbrake, right? But we waited until we crashed. And after we crashed, then we used the handbrake. That's the way I think about this in intuitive terms. So what lessons do we get from this for the future? Shouldn't we attack the credit market more directly and maybe use quantitative easing from the beginning? Just go directly to where the problems are and buy up toxic assets and so on?

Mr. Shin: Like credit easing.

Mr. Calvo: Yes.

**Mr. Shin:** Anil Kashyap and I are working on a project right now that addresses some of these issues. I think one way to phrase it is to ask, what are the trade-offs? The trade-off would be stimulus—if you had stimulus today, what is the trade-off? What's the cost? The cost is, when eventually you have to exit, you're

going to have to face a tougher problem. It's trading off something tangible and direct today with a potential issue down the road. So I think that's a very difficult thing to convey and to actually work out. But let's finish with that.