

**GENERAL DISCUSSION**  
**Crowding Out Redefined:**  
**The Role of Reserve Accumulation**

**Chair: Reuven Glick**

**Mr. Glick:** We're going to give Carmen a chance to respond first.

**Ms. Reinhart:** Very quickly, I want to thank both discussants. This is a first pass at this topic, so I welcome all the suggestions. Let me deal with just a couple of things. On the question of stocks versus flows of foreign assets and liabilities, there is actually quite a bit of analysis on flows. Reserve accumulation as a share of GDP averages about 4 percent a year, though with a lot of variation across countries. A natural next step would be to further expand that analysis and include flows of private savings, consumption, and public saving—to give a broader picture. But some of that is already in the paper. Regarding the concern that this might be a bizarre way to characterize home bias: We tend to think that because gross flows are large we have a good measure of capital mobility. If you look at the savings–investment correlation measure by Feldstein and Horioka you would actually find very low correlations, but it would not necessarily be because capital is mobile. It's because reserve accumulation introduces a wedge between saving and investment. I take the point that perhaps we should be more careful on how we talk about home bias. But in the end it's very asymmetric. Emerging market countries are holding less external debt and much more external assets.

Brad's comment on whether Asian economies experienced a V or an L-shaped recovery is an excellent point. I need to look at that more. The story I am telling here is definitely an L story when it comes to investment, yet the export picture post-crisis is a V-shaped story in Asia. I don't know what the labor market story is, but that may also help determine whether it's a V or an L shape. Another point that Brad made on China is the big foot of China somehow accounting for the regional investment decline. I haven't looked at the issue of substitutability and whether that has been a drain.

On Bretton Woods II, Alan I would say if indeed the benchmark is such that reserve accumulation generates confidence in higher investment, then there's a

bigger gap to explain. But let me stop there. I think these are wonderful comments on a very early stage of this research project, so I thank you.

**Mr. Glick:** Okay, we have time for three or four questions, so we're not going to be able to recognize everybody. I'm going to start with Joshua and then Barry.

**Mr. Aizenman:** I enjoyed the session very much but I have a question and maybe a suggestion. Your focus seems to be on the 1997–98 crisis. Maybe we could switch to the present crisis and the future. Globally, we know that the sum of saving equals the sum of investment. There seems to be a difference in the global configuration after the 2008–09 crisis versus the 1997–98 crisis. My question is, to what degree might the future differ from the adjustment that you are portraying after 1997–98?

The logic is simple: After 1997–98 the OECD countries were growing reasonably fast in terms of their historic metrics and unemployment or low employment was not an issue. You ask what the source of reserve accumulation was for most of Asia after 1997–98; I believe more than 60 percent was due to balance-of-trade surpluses.

At that time it was fine because of the Clinton-era U.S. economic boom and the continuation of sensible growth of the OECD. But now we are in a new universe. My sense is that the global budget constraint of aggregate saving equaling aggregate investment is going to bite much more now politically. At the beginning we heard about the rumble of mercantilism in Germany. Chances are that if global growth doesn't pick up substantially, we are going to hear much more about this. The sheer size of China implies that the old regime is over. In my work with Nancy Marion we find that in the last two or three years, China's reserve ratio peaked around 50 percent, but then declined marginally. A lot of this is associated with a rapid increase from a low base of outward-oriented foreign direct investment (FDI) from China. So my uneducated hunch is that in the next 10 years the terms of this topic will differ from the 10 years after 1997–98. The trends in China are indicative of this. By default the success of China's economy growing so large is constraining its ability to continue doing what it did after 2001.

**Mr. Eichengreen:** The previous paper by Lant Pritchett told us there's reversion to the mean in growth rates. Can there be a reversion to the mean in investment rates? Investment is a source of growth. If you remember the skyscrapers in Bangkok and the expansion binge of the chaebol, you would think the two go together. How do we know that the main thing going on here is not simply

an inefficiently high level of investment before the crisis rather than reserve accumulation?

**Mr. Ostry:** I really like this paper and the discussion. I have a question about whether our policy advice may not be behind some of the things we observe in the data. To wit, when money is flowing into emerging market countries, we condone the use of intervention to moderate the upward pressure on currencies, both out of concern about competitiveness and also presumably for financial stability reasons—namely, that we want the reserves there when the cycle turns around. But when the cycle does turn around, we tell emerging markets to only intervene to guard against disorderly conditions, whatever those mean in the foreign exchange market. Don't use the reserves to moderate the downward pressure over a longer period on the exchange rate, which presumably was part of the reason why they built up reserves in the first place. Could that asymmetry in our policy advice be behind some of the things we observe?

**Mr. Glick:** Mr. Choi and then Ron McKinnon. We'll have to close it there.

**Mr. Choi:** It's great to see the link between foreign asset accumulation and investment. I have researched this issue, and the impact of reserve accumulation on investment is substantial for Asian economies. It is noteworthy that when foreign exchange intervention is sterilized, the negative impact of reserve accumulation on investment will be pronounced. Now turning to what other factors could explain the low investment rate. It seems that investment could also have been affected by excess capacity after the Asian crisis. Another possible factor is an increase in policy and economic uncertainty after the global financial crisis. And for recent years, some emerging economies including Korea might have experienced a fall in foreign direct investment abroad that might have had the effect of lowering the domestic investment rate. Thanks.

**Mr. Glick:** Last question is from, Ron.

**Mr. McKinnon:** This is a short question. Carmen, I liked your paper very much, but couldn't you have a simpler description for the buildup of foreign exchange reserves? As a matter of fact, the words foreign exchange didn't enter any of these speakers' comments. I would suggest that the buildup of dollar reserves earning nearly no interest is just an accident. It's not deliberate policy on the part of my Korean friend or Chinese friend. Rather, it's policy made in Washington because interest rates are so low that you get huge hot money flows into developing countries. They intervene desperately to prevent appreciation, and they create excess money. And then, Carmen makes a very good point, the

sterilization of this money creation might crowd out domestic investment. But this is not a conscious portfolio choice, it's an accident coming out of very low interest rate policies in the United States.

**Ms. Reinhart:** I would like to thank everyone for their comments and questions. Let me very quickly try to hit some of the highlights.

Joshua, I do think that over time country profiles are changing. We are seeing and have seen massive current account reversals in Europe post-crisis, noticeable in the periphery. Irish investment-to-GDP is off 15 percent since the crisis—big swings in the current account. But this makes the question for Asia all the more compelling. Fifteen years after the crisis, they have surpluses with a special focus on avoiding current account deficits because those got everyone into trouble in the past. The policy of avoiding current account deficits persists. Further declines in investment may have to be engineered unless someone comes up with very creative ways of increasing saving, which would be difficult given how high saving rates in some countries already are. But I believe that the forward-looking part is definitely not an extrapolation of the post-crisis experience. I looked at the 15 years since the 1997–98 crisis because, as Brad pointed out, I wanted to consider not just the immediate aftermath but also the longer consequences.

Barry, I don't have an answer to your question. It's quite possible that one would get much of the decline in investment whether you accumulated reserves or not. If you look at the previous presentation by Lant Pritchett, a lot of the growth spurts identified in that paper ended much earlier. The growth spurts in Japan, Korea, and Singapore all ended before the Asian crisis. The ones in Thailand and Malaysia ended much closer in time. So if one takes the logic of that paper for Malaysia and Thailand you could probably explain a lot of the decline in investment as mean reversion. I don't consider this in my paper. My message is the case that foreign reserve accumulation is an official outflow—that represents saving that could potentially finance higher investment as well as higher consumption.

Jonathan, I do think that the pattern of reserve accumulation in emerging markets is intimately connected to the policy advice. The thrust of the paper is not to say that we had it all wrong about reserve accumulation. There are good reasons for past policy, and I hope my table in the presentation highlights that. Some countries had major debt crises not because their debt was high but because there wasn't adequate coverage because their debt was in a foreign currency. I do believe there is an asymmetry between dealing with inflows and outflows. But I wanted to, for lack of a better term, internalize in the policy

discussion the fact that there also may be side effects in the medium term—not necessarily related to vulnerability in the next six months or in the next year. Again, I want to emphasize that this is a first pass in this area, but I think the issue of separating sterilized from nonsterilized intervention is very important. In sterilized intervention, the central bank either sells its existing stock of government securities—in which case you're back to more traditional measures of crowding out. Or the central bank actually issues its own securities to sterilize—which is also within the realm of crowding out—and then it gets more unclear whether it's nonsterilized intervention. It's still a drain, but it gets more unclear.

Ron, in the paper I really don't talk about the drivers of capital flows, which is what you're talking about—you know, the old question of push versus pull. Are the drivers external factors or domestic factors? I start from the premise that the policy had been reserve accumulation. Here it goes back to something Alan Taylor said. Alan, I don't agree with what you said about the process of reserve accumulation going back to the 1990s. One striking thing about the data is that, despite the fact that we supposedly had more fixed exchange rates back then, before 2001 you see periods of both reserve accumulation and de-accumulation. But since 2001 it's all going in one direction, towards more accumulation. You've raised bigger issues, Ron, than what I've tackled here

**Mr. Glick:** That's the last word. So, I want to thank our participants: Carmen, Alan, and Brad.