

GENERAL DISCUSSION
Surprising Similarities:
Recent Monetary Regimes of Small Economies

Chair: Reuven Glick

Mr. Glick: Andy, I'll let you answer the discussants first, and then we'll take some questions.

Mr. Rose: I'll be brief. Ric Mishkin raises the point about whether conventional pegs make a difference. That was something I was a little worried about. Appendix 1 of the paper, available on my website, shows it really doesn't make any difference in practice. But he raises a legitimate point. Anil raised a point about whether hard fixers are different because they have institutional weaknesses, and he's right, they are different. You can see that very clearly in Figure 3. Hard fixers are systemically smaller, but more importantly they have much worse democratic outcomes. There's no doubt about it, he's absolutely right.

Ric and Anil both raised the point that there is only one shock in my analysis. I'm going to blame this on my marching orders, which were to focus on small countries since the global financial crisis.

But I do think that the main message of my paper is true in a much larger context, because it appeals to a literature going back at least to Mussa and Baxter and Stockman, that finds little differences in the behavior of real variables across exchange rate regimes.

Mr. Glick: Okay, let's open to questions. Alan Taylor.

Mr. Taylor: A question for Andy about why this time might be different. I guess this follows up from Anil. If we were teaching this material to undergraduates, we'd use your favorite econ blogger's IS-LM view, and we'd say, well, if the IS curve shifts and if you're on a peg where you can't move the LM curve, you have to import the interest rate because of the trilemma, so the domestic interest rate equals the exogenous foreign interest rate. But if you're floating, you can lower your interest rate and you end up with different domestic and foreign interest rates. But in the post-2008 world, the foreign interest rate is zero for all the relevant partner countries you're pegging to. That collapses the range

of interest rate outcomes you can get in the non-anchor countries. That leads to a very different world, where you may not have the interest rate variations to identify differences in the effects of currency policies, in contrast to, say, Argentina versus Brazil, or Britain versus France in earlier episodes where the policies in these countries diverged.

So I was wondering if you could empirically look at nominal interest rates or policy rates during this episode to see if there's any evidence of a risk premium?

Mr. Glick: Jonathan Ostry?

Mr. Ostry: Congratulations to all of you on respecting the slide limit. I have one question and one comment. The question is whether we are asking the right question. It seems that we need to know more about how countries are managing their economies when they're in different regimes. It seems to me that we should be worried about the buildup of financial vulnerabilities and about how countries are managing the exchange rate under these different regimes. Could you comment a bit about how they're managing things?

The comment is that the one thing I remember about looking at the behavior of countries under different regimes during the global financial crisis is the staggering difference, between, say, the Baltics, which were among the worst performers in terms of output, and Poland, which was among the best performers and allowed its exchange rate to move a lot. I'm not sure if the charts show these outliers, but it certainly seems to be a telling story there.

Mr. Glick: Joshua.

Mr. Aizenman: The most popular regime seemed to be what you are calling the sloppy center. So I have two questions. First, why are we not focusing on comparing the sloppy center with the other two options of hard fixers and inflation targeters? Second, is there any deeper selectivity story about why some countries chose to be in the sloppy center, whether it matters? If you take a horizon of 20 years, I believe that it matters. And being in the sloppy center for emerging markets seems to be the winning regime. But even if you are focusing only on the effects of the recent global crisis, the sloppy center appears to be the most popular regime, since more than 60 countries are now in the sloppy center.

Mr. Glick: Carmen, and then we'll let Andy answer before I take a second round of questions.

Ms. Reinhart: So I'm not entirely surprised by this. About 10 years ago, Andy, as you know, I did the paper with Ken Rogoff on the modern history of exchange

rate arrangements. After going through all the trouble to classify countries by their regime, one of the things that really jumped out was the difference between functional and nonfunctional economies. When you looked at GDP and inflation behavior, there wasn't that much difference whether the country had a hard peg or a floating regime. We didn't control for inflation targeting because a decade ago those regimes were just getting on their feet. But the real difference was between the dysfunctional economies with high inflation—what we called “freely falling”—and everybody else. Related to the question on the sloppy center, I wonder, is there a direct mapping to a longer history in your results, or are we overstating the impacts of the monetary arrangement?

The other thing, though, is when you say it's surprising we had so few transitions between regimes. I think this is a moment where you have to say the opera ain't over till the fat lady sings. What we've had in that window you're looking at is a period of both high commodity prices and low international interest rates. One thing I would love to see is how your exercise would play out at a time when external fundamentals turn nastier for emerging markets. Under this circumstance, how much longer will the inflation targeters stick to their regime than the fixers?

Mr. Glick: Why don't you answer this round of questions, then we'll continue with more questions after.

Mr. Rose: Okay. So Alan Taylor raised the point of using nominal interest rates to differentiate among regimes. He makes the point quite correctly that differences may not be very apparent. But in my statistical work I'm comparing inflation targeters with hard fixers, and in particular the hard fixers that remained fixed throughout the entire period. The inflation targeters typically allow their exchange rates to move a lot. You would have imagined that would lead to very different outcomes, especially for capital flows when compared with the hard fixers. So he's right, and I'm happy to look at nominal interest rates.

Jonathan Ostry asked whether I should take more into consideration, that economies vary on many different dimensions and not just on the exchange rate regime. There's a long literature comparing various different outcomes—for instance, output volatility, output gaps, or inflation—by the exchange rate regime. I recently wrote a review of that literature for the *Journal of Economic Literature* and cited papers, including some by Jonathan.

Now these conditions may vary a lot, and you can include conditioning variables to control for these considerations. But historically this literature has found almost no success in looking across exchange regimes for outcomes

independent of what you're conditioning on. Maybe it hasn't been done historically correctly, but it just strikes me as being a stretch.

Joshua raised the point that many countries are in the sloppy center and in some sense that's deliberately chosen. That may well be true. I think of it as, many countries just don't have the institutional capacity to stick to a monetary regime for whatever reason. They can't stick to a hard fix, and they don't have the capacity to deliver a credible inflation target. So they're just moving back and forth between blocs. The duration of monetary regimes for countries in the sloppy center is almost always less than two years. So I don't think of it as a very well-defined monetary regime, which is why I focus on hard fixers and inflation targeters. Here I've got to correct Ric. The policy choice is not fixed versus float, because a float is not a well-defined monetary regime. If your exchange rate floats, you have to say what you're going to do otherwise. And so I think inflation targeting is a well-defined monetary regime, but not all countries that float have an inflation target.

Mr. Mishkin: Right, we're in complete agreement on this. That's what I'm saying: The monetary regime is not fixed versus float. . . .

Mr. Rose: The regime has to have a nominal anchor. Many countries in the sloppy center float, but they don't say what they do in terms of an anchor. So I just think that's an ill-defined center.

Carmen is exactly right. Certainly, one of the things that I've used repeatedly is the Reinhart and Rogoff data on exchange rate regimes, and the regime often doesn't matter. Now, it may well be the case that you need a longer history to find a big difference between, say, inflation targeters and hard fixers, and that the global financial crisis and its aftermath is too short a period of time. However, historically whenever there's been a really serious recession, monetary regimes fall like tenpins. There's huge regime turnover, especially during bad times. If you have any doubt about it, think about the Great Depression. The global financial crisis and the Great Recession were enormous. You would assume that there would be massive turnover after the recent crisis and there just hasn't been.

So it may be too soon, I'm not denying it. But it's still striking. This is the presence of absence thing.

Mr. Glick: Turning to my list, I've got John Murray, Sarah Calvo, Mark Spiegel, Ashoka Mody, Peter Hooper, Deputy Governor Choi from Korea, and Michael Hutchison, and that'll close the book. So, John Murray.

Mr. Murray: Just a quick point. I may be misremembering, Andy, but at one point in your presentation you concluded by saying that small countries had an alternative. They could go from a hard fix to a floating exchange rate. Now, I'm a believer in floating exchange rates, obviously, so take what I'm about to suggest with a grain of salt. I thought the optimum currency area logic would throw that on its head, because the standard argument for a flexible exchange rate is to have a different macro outcome, but you realized you'd be sacrificing some efficiency gains by giving up fixed exchange rates. So wouldn't your question be better posed if you really believed the macro outcomes were the same? Why don't all of these countries go to a hard fix?

Ms. Calvo: Thanks. A reaction more than a question to Ric. Ric highlighted the case of Australia in praising how well inflation targeting has been working, and I wondered if it has really been tested. During the mid-2000s, Australia received substantial portfolio inflows and their foreign exchange liabilities are quite high, like 60 percent of GDP. And then Lehman Brothers collapsed. So I wonder if in fact the inflation targeting regime in Australia has been really tested.

Mr. Glick: Okay. Mark Spiegel.

Mr. Spiegel: Thanks. I wanted to disagree a little with Anil's characterization about the policy options available under the two regimes during the crisis. In particular, that being pegged to a country that was at a zero rate was essentially equivalent to an inflation targeter cutting the rate to zero. I think even though you're pegged to a country that's at a zero rate, an additional policy option that was available to the hard pegger was a discrete devaluation. I would think a discrete devaluation of a hard peg as being quite a different animal than, say, an inflation targeter who then adopted some kind of a devalued peg or some completely different regime. Indeed, in the paper, Andy, you mention somewhere that a couple of the hard-peggers you identify actually moved their exchange rates during the crisis. I'm not sure how you treated those, but it suggests that policy option was available to the hard peggers that would manifest itself in a very different way than to the inflation targeters.

Mr. Glick: Ashoka Mody.

Mr. Mody: I don't think you answered Jonathan's question on the Baltics versus the non-Baltics. Hungary was in very acute financial distress, but did have a floating regime and did not go into the tailspin in terms of output loss that the

Baltics experienced. Also, your comments in Table 4 said that the durability of the regimes was more or less the same, but there's a lot more exit from the hard fix in Table 4 than your comment suggested.

My third point is that, as Martin Wolf said at lunch, this was a North Atlantic crisis, and a vast swath of the world was not affected by this crisis. To that extent, a large number of countries in your sample did not bear the brunt of the crisis. So drawing the inference that this crisis did not have a material effect on countries irrespective of their regime is not, I think, a very interesting conclusion, because many countries were not directly affected by the crisis.

Finally, at times it looked like you were suggesting that this extended not just to this crisis but was also true of the past. But surely the durability of fixed regimes has been in question for a long time. There is a paper by Obstfeld and Rogoff that talks about the mirage of fixed exchange rate regimes. So I don't think the claim that fixed regimes are as durable as nonfixed regimes is empirically correct.

Mr. Glick: Next we have Peter Hooper.

Mr. Hooper: I was just going to comment that I thought Anil's observation, that this was not the right shock to test this particular question, certainly resonated. I'm thinking back to empirical macro modeling work from a couple of decades ago by Ralph Bryant and others at Brookings that ran a number of large and small economy macro models through their paces. We found there were very sizable differences between fixed exchange rate regimes and money targeting as opposed to inflation targeting, which I presume would be somewhat transferable, although I guess Carmen's observation about earlier evidence might question that.

Mr. Glick: Okay. Mr. Choi?

Mr. Choi: I have a question about the possible role of nonlinearities when comparing the two different regimes. The regression results suggest the two regimes are very similar, but looking at Figures 3, 4, and 5, we can see some kinked curves or curves with inflection points. For example, capital inflows are much larger for hard fixers. If we look at the high growth in reserve accumulation, there tends to be greater accumulation for hard fixers.

We also can see that hard fixers experienced much larger stock price surges than did inflation targeters. Taking this all together then, there tends to be more volatility in economic outcomes for hard-fixers than other regimes. Thank you.

Mr. Glick: The last question is from Michael Hutchison.

Mr. Hutchison: I'm afraid to ask this question because Andy will usually say he's already addressed it somewhere in an appendix, but I'll go ahead anyway. It looks like 83 countries started with the hard fix, and of those, 60 survived, which means more than 25 percent dropped out. What bothers me a little is that you want to know at the beginning: Did the countries that began with the hard fix perform similarly to your floating, inflation targeting group? Because in some sense, looking at the countries that dropped out, my guess is they're very, very different. So I would argue that you may have a survival bias here in the selection.

Mr. Rose: I'll just respond quickly to the questions that were directed to me. John Murray raises a completely appropriate point, which is, why isn't the default to use a hard fix, if the outcomes are the same? I think, not being a central banker myself, that people might respond that this is only one type of shock and there are other shocks. But it's a legitimate point.

Ashoka Mody chastized me a little bit for not answering Jonathan's point about the Baltics versus Poland and he added Hungary. I don't look at individual countries in my analysis. I don't do anecdotes because for every anecdote that one person can come up with, I can come up with one on the other side. I do everything. Really, I'm not switching. Jonathan is right, the Baltics did much worse than Poland. But, if you look at the entire spread of the data I displayed, there have to be cases on the other side as well. That's the reason why I try to include all of them.

You also raised a point I think is right, that there's a lot of exiting from hard-fixes. Mike Hutchison raises the same point. There's no doubt about it, I'm the first to say countries that say they're fixed don't stay fixed forever. In my statistical analysis I focused on the countries that have hard fixes all the way through. As Mike says, I could have used the ones that started as hard-fixers. I don't believe things would change very much, but I haven't done it, at least not in the version that's reported. I certainly don't want to claim that all hard fixes are durable because they're not. But I would say that's the case so far for inflation targeters.

It was pointed out that the figures suggest there may be nonlinearities in the relationships. Yes, if you look at the tails in the graphs, there is a difference between the behavior of the hard fixers and inflation targeters. I would say that those are simple bivariate graphs, and they're there to give you a flavor of the data. But everything I do, I try to reinforce with more rigorous methods. Now, if you're going to look at the tables, the best thing to do is to match every observation from a hard fixer with an observation from an inflation targeter. In the

Appendix on my website, that's what I did in Tables 13 and 14. You want to do it in a nonparametric way because the tail distributions are different. Tables 13 and 14 reinforce that impression in exactly the same way, but it's more rigorous. The last comment I want to make is that Mike Hutchison makes an extremely good point. I actually did the analysis but it's not reported in the table in this paper. So I'll add another appendix table online. Thank you all very much for your comments. I really appreciate them.

Mr. Mishkin: There are two other things. Sara, you raise this issue about whether Australia's been tested. Actually I talked about Australia just because I love Sydney so much. But Canada is also very similar in this regard. And I would argue that it's true, in a sense, that they weren't tested in terms of having internal financial crises. But that's because they basically got it right in addressing the criteria for successful monetary regimes. That is, they both had done nominal anchors through inflation targets with floating exchange rates. In addition, their regulatory systems worked very well by being principle-based. Both countries have about five big banks that regulators sit down with and, if there's something going on in the bank that they don't like, they say, nudge nudge, wink wink, we don't want you to keep doing it. That's versus rules-based regulation, in which the rules can frequently be stretched. As a result they did not permit much overly risky behavior. There's also an element of luck. Both Canada and Australia had commodity booms and great investment opportunities in their own countries, so they never got involved in a lot of the crazy derivative securities like Germany and France did, because they actually have good places to lend their money. So there may be a luck element besides the fact that they did a good job in terms of regulation.

On the fiscal issue, again, both of these countries are paragons of virtue in this regard. Canada actually used to have very bad fiscal policy, but in the 1990s somehow a magic wand hit them and they figured it out. And, in fact, in Australia there was a debate about whether they had too low a debt-to-GDP ratio. I think that these examples show they had all three elements of the monetary regimes and, in that sense, when this crisis hit they did very well. And I think it was a test. But you're right, if there are different shocks because they screwed up on their financial sector or fiscal sector, the fact that they had an inflation targeting regime wouldn't have helped them. They would have been in deep doo-doo like the rest of us.

Mr. Kashyap: To Mark's point, I think Ashoka Mody and Mike Hutchison already answered. You can say I'm doing a one-time devaluation, then you do a two-time devaluation, and then the next thing you know you're not fixed

anymore. You can do that a little bit, but you had better have a good story about why you're doing it. If you go into it saying I'm kind of fixed, I expect to stay fixed, I really mean it but I might unfix—it's not going to work so well.

Mr. Glick: Let's thank all of the speakers for an excellent discussion.