

General Discussion: After the Fall

Chair: Susan M. Collins

Mr. Meltzer: I am a great admirer of the work that Carmen and Vince Reinhart and Ken Rogoff have done. Carmen and I have discussed this at a previous symposium, so she knows I admire the work they have done. What I admire most about it is, unlike most economics, it really pays attention to the longer-term consequences of actions that are taken, something sorely missing both in policy discussions and in economic discussions—and perhaps for the same reason.

Having said that, the role of policy is certainly the missing element in this study. The two comparable periods they use are the Great Depression and the 1973 oil crisis. By 1936, the United States had approximately returned to its 1929 level of per capita gross domestic product (GDP). It then made the serious mistake of ending the fiscal stimulus that came from the bonus payment and coupling that with a severe monetary contraction, usually attributed to the doubling of reserve requirements, but in my belief, it had more to do with the end of the period of monetizing the gold inflow. We went to a period of sterilizing the gold inflow, and that ended that expansion. Would the expansion have looked different but shorter if we had not made that mistake?

Would the 1973 oil shock have been less severe if the Federal Reserve, led by Arthur Burns, didn't make the mistake of thinking what they saw was inflation instead of a relative price change and then slamming the economy in order to cut down on the inflation when they later learned in the 2000s the right thing to do was to tell people this will pass through and the inflation rate will not be greatly affected?

Like Bill White, I am concerned about whether policy could have made a difference. But a major message of this paper and the Rogoff-Reinhart book for me is the thing you have to change is what you do before, not what you do after. And the major error is the policy before. In the current crisis, it seems to be clear the Fed had been following the Taylor rule pretty closely, and they abandoned it. Although that did not cause the crisis, it facilitated a mistake in housing policy by helping finance the last years of that housing policy.

In the Federal Reserve's history of 97 years, the longest period of low inflation and stable growth is the period during which they more or less followed the Taylor rule. The period that followed that was a period in which we have this disaster. So, it seems to me the major lesson of this policy is that forecasting is not something economists do very accurately, and they are better off if they follow rules.

Mr. Sinai: Carmen, this is a research question and a suggestion for further work, if you have not already done it. It relates to the stock market, especially the generic episodes before and after 1929 and before and after 1973 and specifically the latest episode.

You examine the behavior of real GDP, unemployment, inflation, bank credit and real estate prices in a 21-year window. A price bubble in real estate that bursts has been a part of a lot of crises. But why didn't you include stock prices as a variable of interest, where you might have the data?

In the latest episode, United States and globally, in the U.S. equity market we had the second-biggest bear market ever—down 56 percent from peak to trough. Some studies show a huge negative effect on household wealth and on consumption and on the funds that come out of the stock market, as well as the change in the cost of capital. Psychology had a lot to do with the collapse in consumer

spending, which in turn reverberated around the world to give you some of the synchronous, somewhat-puzzling massive decline in half of the 182 countries in the fourth quarter of 2008 that you cite. The stock market always plays a big role in these things, so why not include it in a list of variables to examine?

Very quickly a question like Allan Meltzer's and others': What might you say about policies in the aftermath of these crises and commonalities between them if anything, at this point, that we would be interested in hearing about at this conference?

Mr. Feldstein: I think this is a very valuable, very interesting paper, and it makes me want to know more using this framework.

First, about deflation, in Chart 12 you show us inflation news—all of which is pretty reassuring, reassuring in the sense that all of the distribution is in positive inflation rates. And yet there is a lot of concern about the possibility of deflation now. So, I wonder whether asking the question in a different way, a way that emphasizes the degree of excess capacity or the initial starting point, would be a way of helping us see whether past episodes suggest deflation is a greater risk today than this chart indicates?

A second thing that interests me is the story about savings. As Chairman Bernanke pointed out, we now know the saving rate has been rising over the last few years, but there is a question of what will happen to savings going forward. Historically, the United States has had a low saving rate for a long period of time. But, if you go back to the quarter-century from 1960 to 1985, the saving rate never dropped below 7 percent and averaged 9 percent. Given today we have a saving rate of 6 percent—and there has been a lot of loss of household wealth—I wonder if there is a way of learning from the past experience whether there is still a significant probability of rising saving in the years ahead?

One third thing: I like the idea of comparing the decade before and the decade after the crisis. A lot of that comparison reflects what happens in the immediate years just before the crisis and the immediate years just after the crisis. It would be interesting to know what these comparisons would look like if one omitted, say, the three years

before the crisis and the three years after the crisis so that we saw the preceding, say, seven years and the subsequent seven years.

Mr. Gallagher: Carmen, I'm interested in your finding that real estate prices are lower almost always 10 years after the crisis than before the crisis. I know this is beyond the scope of your paper, but how much of that do you think is normal for the housing market versus how much of it might be the result of government policies that for whatever reason suppress market forces and prevent a shorter but sharper adjustment in real estate prices? Is there enough variation in the policy reaction and enough variation in the housing price patterns for you to draw any inferences?

Mr. Mussa: Carmen, I am concerned with this paper as it presented and interpreted the use and understanding of two words: "after" and "following." Forty-four years ago when I read Freidman and Schwartz, I learned the financial crisis in the Great Depression may have begun with the stock market crash. It culminated with the bank holiday of March 1933. So, I date the end of the crisis and the period beginning the aftermath of the crisis with the summer of 1933. That involved a very spectacular economic recovery over the next four years.

Similarly, in the comparison of pre-1929, GDP growth up to a cyclical peak and then the decade afterward, which includes a massive recession not only in the United States but also worldwide, is almost surely going to have lower average annual growth than the preceding decade. We're not necessarily learning very much from that about how things look once the immediate crisis has been dealt with.

It is true that Ben Bernanke and the Federal Reserve Board made a horrible mistake in 2008 and 2009 by not allowing another Great Depression because by avoiding another Great Depression, we've avoided the possibility beginning two or three years from now of seeing GDP growth rates in the range of 8, 10 or 12 percent for a period of four or five years. But we want to be a little careful about making those types of comparisons and conclusions.

Let me just note, in the case of Japan, we have a very serious problem. Japan had an asset-price inflation far surpassing the 1929 episode in the United States. They had a decade of very slow growth. But they had no major depression during that period. Economic policy in Japan may have had its problems, but it successfully avoided a massive collapse of economic activity. Maybe part of the cost of avoiding that collapse is you get a more prolonged period of relatively sluggish growth, rather than one of spectacular recovery.

Mr. Geanakoplos: I admire your work of comparing things across countries, as everyone else has said. I am particularly happy to see you are giving so much attention to leverage and deleveraging. But I have a suggestion, maybe even a critique. You find deleveraging takes place quite a bit after the crash. It is interesting to see it is still going on so far after the crash. But the fact you're finding that it happened so late is due to a common mismeasurement of leverage. That is, leverage should be measured as the loan-to-value ratio of new loans. But, because you are doing such a global thing, you have all the old loans there. When things go bad, the old loans are still outstanding. GDP is going down, equity is going down, and it looks like leverage is going up or not going down very much. But, if you look at the new loans, you might find it preceded the crash or happened simultaneously with the crash.

Mr. Acharya: I have one suggestion on the methodology. To really nail it down that the aftereffects you document are because of a credit cycle preceding the crisis, you should look at some episodes where there were similar wealth shocks to the economy but that were not preceded by such a substantial rise in leverage. A good example would be the NASDAQ crash, which was a pretty large wealth shock, probably comparable in magnitude to the recently witnessed housing price shock, but because it wasn't preceded by a significant leverage cycle, the aftermath was easier to deal with. This could also explain why the traditional policy tools that central banks are used to employing are not working as well given we have had a leverage cycle. Perhaps we have to write down debt rather than simply stimulating the asset side of the economy?

Ms. Collins: There are already a number of issues on the table, and I wanted to take the prerogative of the chair to raise one other thought that might be interesting. It's quite striking how many country episodes one is able to put together, and the Reinhart-Reinhart work as well as the earlier sets of papers really make that clear, the extent to which there might be some distinguishing features from those economies that they were able to pull out either more quickly or in a more systematic way. It would be interesting if it were possible to distinguish those experiences from some of the other experiences. A lot of this clearly early analysis on the longer term focuses on averages, as it should. But pulling those things out would be very valuable.

Ms. Reinhart: Thank you, Bill. And thank you all for your commentary. Very briefly on the issue of supply and demand, which was raised more than once. Restoring the supply of credit doesn't guarantee the renewal of credit. We are pretty cognizant of that. One illustrative point was during the Japanese crisis when domestic credit wasn't growing; it wasn't growing entirely because the supply was paralyzed. There was a lack of demand, which in effect drew Japanese banks to begin their lending boom to emerging Asia in 1995 and particularly in 1996 and 1997. So, we're very cognizant that we observe a credit outcome in tracing whether it is supply constraint or demand issues. We're very cognizant that it is both.

On the long-term consequences Allan pointed out, I'd also like to highlight the long-term consequences of the policy response—fiscal versus monetary—are very different. In a short paper called “Growth in a Time of Debt,” we have tried to highlight the issue that high levels of government debt are associated with adverse outcomes for growth.

Very briefly on Mike's comment. I think we do say in the paper the Great Depression is remembered for the collapse in output, not the slowdown in growth. That is taken strictly from the paper. So, yes, I doubt we would be calling Chairman Bernanke having made a policy mistake by putting a very high floor on the output decline.

Marty, we've done as you suggest; we just haven't gone quite that wide with a window. But we do sensitivity analysis in which we do not exclude three years—three years is a lot of information to throw

out. But we do exclude $t-1$ and $t+1$ from the analysis. The results are discussed in a footnote. We have not gone quite as far as you suggest, but in that line.

On the policy mistakes: What I'd like to highlight from the analysis is the policy response is very heterogeneous in the 15 episodes. Some countries had no fiscal stimulus. Some countries had very, very aggressive policies for writing down bad debts. Uniformity of the pattern—because we don't just report the aggregate results, we report the individual country results as well—does highlight the credit story is a very important one to consider, irrespective of what the policy response was.

Last, on the issue of leveraging: This is actually a point made that debt-to-GDP often goes up into the crisis, in part because GDP is often declining. The point is one to highlight the debt overhang, that the only way you start really seeing the debt-to-GDP go down is when it is either through repayment, which is very slow, or also outright restructuring of private debt, as this is a discussion of private debt. But those restructurings are often quite delayed. The write-downs either do not materialize or materialize very gradually.

