

## Central bank responses to financial crises

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I am going to start out by talking about the monetary policy lessons being drawn from the crisis that are just the wrong lessons. In fact, most of the discussion that is going on right now at the G20, including the need for countercyclical prudential regulation, is based on a misinterpretation of what caused the crisis. So I am going to first deal with two things widely cited as causes of the crisis – easy monetary policy in the United States and international imbalances – and I am going to argue that neither of them was related to the crisis in any direct or important way.

### Was easy monetary policy in the United States the cause of the crisis?

For monetary policy – and Philip Turner mentioned this in his introduction (in this volume) – the obvious observation is that easy monetary policy cannot depress real interest rates for seven years. There is no model that tells you that a continuously expansionary monetary policy for seven years does anything else but cause inflation. Real interest rates were low leading up to the crisis, but the cause cannot have been monetary policy.

The second observation is that easy monetary policy does not have an imaginary evil twin called liquidity. We hear a lot that the crisis was caused by excess liquidity sloshing around the system for seven years. But nobody has a very good idea of what that is or where it came from. It kind of reminds me of ether. Scientists decided that light was a wave that had to travel through something. But there was a vacuum out there and we would all freeze in the dark if there was not something to get the light from the sun to us. So scientists invented ether. Economists did not know what was going on before the crisis, so they invented liquidity.

The final thing, which is just so obvious to somebody in the financial markets, is that leverage is profitable at any level of interest rates. Low interest rates do not cause people to reach for a higher leverage. Leverage simply multiplies profits from spreads. Excessive leverage did make the system vulnerable, but the link between leverage and the level of interest rates is weak at best.

### International imbalances

At the G20 meeting that just concluded, the US position was that international imbalances were a big part of what led up to the crisis. Large net flows of credit from emerging markets – China, in particular – to the United States and other industrial countries can account for a low interest rate and expectations of future low real interest rates for a considerable time period. That is a perfectly sensible idea.

The associated sensible idea which gets a lot less attention is that equilibrium asset values will be high. If you have a lower real discount rate, and people expect it to continue for a very long time, asset prices are going to rise. It is in the denominator of every asset price that you can think of.

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But the crisis that was predicted for that system was a stop in capital flows from emerging markets to the United States and to other industrial country markets. That predicted stop in net capital inflows was supposed to generate a spike in US real interest rates, a collapse in asset prices, a collapse in the dollar, and a crisis; but that did not happen. What I find quite astonishing is that even though the crisis that was predicted did not happen, the cure is still being touted as a proper policy response. This is not sensible.

## **Breaking down supervision and regulation and the need for improving supervision**

An alternative cause – which is on almost everyone’s mind but not given the enough emphasis – is a breakdown of supervision and regulation. As Vittorio Corbo said (in this volume), financial markets are the most controlled markets that we have in industrial countries. To understand why these markets failed we need to focus on a very old distinction between supervision and regulation.

Regulation is a set of rules that you impose on people. We love rule-based systems. They are consistent with the rule of law. We do not like interpretation nor do we like to give regulators a lot of latitude. Supervision is very different from regulation in that it requires people to interpret and enforce the rules.

Regulation is being improved, and tremendous energy is being devoted to setting up better rules. Vittorio Corbo (in this volume) went over several of them. I have read through lots of pages of proposed new rules. They are all kind of sensible things, but I do not think they are going to do any good, because the political economy of supervision has not changed sufficiently in my view.

I think we still have some of the assumptions that are behind ineffective supervision. The first is that private financial institutions care about the long-run value of the firm. Not true in any financial institutions I know anything about. Private financial institutions care about the next bonus payment, and after that they could not care less what the long-run value of the firm is.

The second assumption behind ineffective supervision is that the market will impose discipline over leverage. It just will not. Leverage, providing credit, is a very competitive and very profitable enterprise for the big institutions. If they offer even slightly different leverage ratios to their clients they will be out of business very quickly. There is tremendous pressure on financial institutions to provide credit to allow other people to take higher leverage ratios.

The last assumption – which is a real killer to me – is that private rating agencies are superior to the government agencies in evaluating risk. This sounded great, “let us marketise this rating environment”, but it clearly did not work. The incentives for the private rating agencies are not so good.

What are the problems with this? Some banks – a few banks in the world – will care about the long run, but most of the others will not. What is interesting to me is that a bank is a very stable industrial organization. The banks that do care about the long run, which is generally only one or two of them in each country – if you are lucky – actually did very well in the crisis. J.P. Morgan will come out of this crisis as a much more powerful bank than when it went in. But they do not have any interest in enforcing reasonable behaviour on the other banks; quite the contrary. If you are J.P. Morgan, you sit there on your cash and you love it when the other guys go out of business because you know you will be able to buy them for nothing when the crisis comes. So those banks will do well in a crisis, but they have no real incentive to make the system stable.

The second problem is that the regulatory capture of rating agencies is much worse than regulatory capture of government supervision agencies. We all know that there is a problem of regulatory capture in supervision of any entity in the private sector. But regulatory capture

among rating agencies is much worse. With the private rating institutions, direct payouts are encouraged, it is part of the structure. You pay the guy for his rating. At least with a government official you have to do it under the table, or take him out to lunch, or something like that – you cannot literally go into his office and write him a check. So clearly we need those government agencies rather than the private sector to do the risk analysis.

The other problem that I have not heard discussed at all – which I think was central to this crisis – is the idea that you can avoid regulation through good works. Remember, US subprime loans were a government programme. The lenders were doing good by extending home ownership to a whole class of people who before that were not able to qualify for loans. This initiative did not even come out of the private sector; it came from the US government's desire to do good in the world. One of the ways you do good is to subsidize credit to good causes. If you are a crook, that is what you will look for. How can I make myself look like somebody who is acting in the public interest and get around regulations? I think a strong supervisor, which we did not have in the United States because we legislated them away in the past 20 years, is a natural counterweight to this kind of political economy of relaxing regulation to do good.

## Why are crises so costly?

Given that the breakdown in supervision led to the problems, why is this such a costly thing? Why are these crises so costly? I think that the role of collateral is not emphasized enough. One way to make this point in a kind of dramatic fashion is that there are only two kinds of financial institutions in the world: one kind has access to the Federal Reserve, the ECB, the government bailouts and so on, and they actually get credit. Why? Because you think that if they do not pay you back, the government will. The other kind does not get credit – those institutions post collateral. That two-tier system works great in normal times. If I am a hedge fund, the amount of credit I get – every dollar of it – is “fully” collateralized. That means that the price of the asset that I pledge as collateral today can pay back the loan tomorrow. So as long as there is no big change in asset prices, that system works great.

In September 2008, collateral evaporated. What was the trigger point? Lehman Brothers, which arguably had access to the Federal Reserve, was cast out of the inner circle. It was cast out into the darkness, where it suddenly had to post collateral. If you look at the mechanics of the Lehman crisis, margin calls sunk Lehman. It was not a withdrawal of deposits or anything like that. Banks with cash – who were going to survive – demanded that Lehman post more collateral. Of course, they could not do so, and that was the crisis.

The insight here, which is not easily found in the academic literature, is that the value of collateral is endogenous to the system. In particular, it depends on the expected volatility of prices. If the expected volatility of prices goes up, the value of a put on an asset goes down, the derivative value goes down, and, from a macro point of view, collateral literally disappears. It was there yesterday, you get higher expected volatility today, and it is gone! In that case, everybody outside the trusted circle, including the sources of international trade credit, shut down. And here is the important point. This is an irresolvable conflict: *profit motives and competition push leverage to levels that are going to invite crisis. The crisis is going to be costly because it is going to involve an evaporation of collateral outside the insured system.*

## Reforming the system

How do we deal with this? Paul Volcker made a statement in the *Financial Times* in which he basically said it is hopeless. He said, forget all this. It was apparently in response to an

invitation to serve on yet another committee to reform the system and, Volker apparently said, reform is hopeless. I think what he meant by that, at least what I would mean by it, is that no set of regulations, no set of written rules can deal with this conflict between the profitability of leverage and the system's vulnerability to leverage unless those rules push the system far, far away from an efficient frontier. We actually did this in the United States after the Great Depression. We turned our financial system into a public utility – fixed deposit rates, no competition – a crummy system but very stable. As we moved away from that, it was not an immediate problem because we had a pretty effective system of supervision centred at the Federal Reserve. It was very proactive. That supervision mechanism was based on the idea that any regulatory system that you write down will immediately start to be chipped away, circumvented, in search of profit. That is our system. Once you write it down, the private sector goes to work that day and, since they generally have advance notice of what it is going to be, they have already figured it out. So this is not good or bad, this is a fact. Regulation is futile.

The proposed regulatory reforms are partial descriptions of what any sensible and motivated supervisor would do as a matter of course. With all due respect to Vittorio Corbo's presentation (in this volume), everything he said is fine, but it is exactly what any sensible supervision system would do anyway. Once you write it down, if you do not supervise, it does you no good. The problem is not knowing what to do after we see how the profit motive drives banks and financial intermediaries around the regulations. Once you write it down it is useless. They are not going to do what you are prohibiting, but they are going to do the next best thing to get around your regulation: to increase leverage, increase profits and make the system more and more vulnerable. You have to have a counterweight. That involves people who are well trained and motivated to see what the banks are doing and to tell them to stop it.

In a model of supervision I developed 20 years ago, I basically said that any activity that grows quickly or any asset that grows quickly on the balance sheet of regulated or insured institutions should be presumed to be dishonest. So you tell them to stop it. When they say "Why?", you say "I don't know yet, but I will soon let you know". You supervise now and figure it out later. If you try to figure it out now and supervise later you are going to be in trouble. So the problem is that ex ante we cannot imagine how they will do it. You just do not know how they are going to do it. In that sense it is a perfectly, rationally, unpredictable response. You do not know what form of political protection and public interest they will invoke to get away with it. Which senators are they going to buy to get away with it? Is it going to be housing? What is it? You do not know, so you had better supervise.

## **Did reserves insulate emerging market economies?**

Did reserves insulate emerging markets? No. OK, they didn't hurt. Borrowed reserves certainly didn't insulate them. Ask the people in eastern Europe whether reserves have helped them much. The answer is no. Did net foreign assets help? Yes – if you have less debt you are more insulated. That insulation comes from current account surpluses and that has done some countries lots of good. Fed swap lines and IMF flexible credit lines – somewhere in between. Again, it helps. But remember, the main reason emerging markets escaped this is that they had recent banking crises. This kept banks from getting into the asset market, which is where the problem was this time. And I guarantee you, in Mexico, if the banks had another year to get into this, they would have been into the asset-backed mortgage market just as heavy as anybody else. You should take no comfort at all about the ability of emerging market countries to avoid the next credit crisis if it is based on the failure of supervision and regulation in the industrial world.