

General Discussion: Whither Monetary and Financial Stability? The Implications of Evolving Policy Regimes

Chair: Guillermo Ortiz

Mr. Mishkin: I want to strongly agree with the comments that Mark Gertler just made and add one point to them. When the Borio-White paper suggests using monetary policy to limit financial imbalances, it is talking about the need to use a second-best policy. The danger from their suggestion is that it may actually take some of the heat off of using the first-best policy, prudential supervision and regulation. The thrust of the Borio-White paper does not send us in the right direction. Instead, we need to focus on what can directly reduce financial imbalances.

It is true, however, that monetary policy does have to monitor what is going on in terms of the financial sector. Indeed, one of the things that we have seen in recent years is that monetary authorities now are recognizing that not only do they have to focus on price stability, but also they have to worry about financial stability. That is one of the reasons we are seeing financial stability reports. We are seeing more concern about lender-of-last-resort operations at central banks. That is the right way to deal with the problems of financial imbalances, rather than focusing on changing monetary policy to try to head things off at the pass when you are not that sure where the pass is going to be.

Mr. Mussa: I want to support the paper authors, rather than the discussant. It seems to me that the poster child for discussing why monetary policy should, in selected instances, pay serious attention to asset-price distortions on the upside is not the United States in the late 1990s. It is Japan at the end of the 1980s. There, Japanese monetary policy controlled what is emphasized by the Ministry of Finance, not by the Bank of Japan and concern of a variety of international issues on which the U.S. government was pressing them as well. Looking at a CPI inflation rate that remained very low saw an enormous explosion of asset prices, real estate prices, and enormous growth of credit. If that price bubble collapsed, there was going to be serious macroeconomic problems.

The United States in the late 1990s simply did not have those problems. There was no big explosion of commercial credit to the real estate sector or anything of that kind. We were watching at the IMF very carefully because we were concerned that asset-price equities were overvalued and a downward correction might hurt the economy. At no time was a recommendation made through 1998 that Federal Reserve policy should be tightened in light of what was happening in asset markets. The symptoms did not point to it. In my judgment, the problem only arose, and this was something we discussed at the time, in 1999.

The Federal Reserve rightly responded to turbulence in asset markets in late 1998 and cut the federal funds rate by 75 basis points. That was a proper action. The issue was, as we moved into early 1999, that an insurance policy was taken out and when was the right time to begin to take it back? In view of an economy, which certainly did not have Japanese problems in terms of the real estate sector or credit, but the current account balance widened very markedly, where domestic demand had outpaced output growth by 4½ percentage points of GDP, where the CPI core inflation rate was beginning to tick up a little bit, where nominal wages were beginning to accelerate a little bit, and where we have this asset-price bubble in the Nasdaq market.

Now, Gertler said there were no head winds. The financial sector was not overextended prior to the collapse of the asset-price bubble. That cannot be said of the telecoms and related sectors, which financed huge amounts of investment off of equity floatation. Part of the head wind the global economy has been experiencing since the collapse of the asset-price bubble, not just in the United States but also worldwide, had been related to the bubble of investment that we saw on the global economy. That could not have been eliminated, not chopped off completely, but it could have been moderated at least modestly if the Federal Reserve had acted a little sooner to take back the insurance that it provided in late 1998. That is consistent with Gertler's recommended policies, but the notion that central banks never are in a situation where they can perceive a distortion on the upside in asset markets that recommends some type of preemptive action is too strong a conclusion to draw. Borio and White are right. You need to look at those indicators very carefully. When they are pointing to something developing that might look like Japan, then you want to be very careful to take serious account of that. Even in the United States, when we reached 1999, there then did become a case that at least some modest action in light of asset market development and other developments in the economy pointing to an unsustainable overheating that that was a signal the Federal Reserve should have taken a little bit more heed of a little bit earlier than did.

Mr. Knight: This paper highlights the importance of transparency and cooperation between the monetary authority and the financial supervisory authority in implementing policies in their separate areas of responsibility over the course of the business cycle. The fact of the matter is that the monetary authorities and the financial supervisors need to cooperate closely in assessing financial risks as they evolve both in the upswing of the cycle and in the downswing as well. It is for that reason that central banks—particularly those that are not themselves responsible for financial system supervision—have begun to focus more on producing financial stability reports to indicate the areas where they see financial risks and to consider possible policy implications.

Mr. Hale: What I wanted to follow up with Michael Mussa is that in analyzing the policy consequences of asset inflation, it is very important to look at the differences in the process of financial intermediation. Let's compare the last two cycles. During the last three years, the United States experienced a stock market decline equal to 90 percent of GDP, compared with 60 percent back in 1929-31. The starting point, of course, was different but at the peak three years ago, the stock market was 180 percent of GDP, compared with 85 percent in 1929. Still, this is a very significant wealth loss by any historical standard. We also have had in the last two years a shallow recession and a shallow recovery.

Despite that, we've only have had 16 banks failures in the last four years in this country. In the business cycle of 1989-91, we had 500 bank failures. What is the difference? The first is that in that previous cycle 12 years ago we had lots of real estate lending. We have much less this time. Secondly, the excesses of the last five years were not financed by the banks. They were financed through securitization. The big losers were the insurance companies, the mutual funds, the pension funds, and the financial intermediaries who actually bought the junk bonds, the equity IPOs, and the venture capital deals to finance the excesses in the telecoms and information technology industries that boomed in the late 1990s and early part of this decade. The bottom line is that you have to distinguish in analyzing the consequences between these different forms of financial intermediation.

Mr. Bernanke: I am astonished by Michael Mussa citing Japan as a poster child for this paper. It is just the opposite. Japan was an example, as we know even today, of a very poorly regulated and supervised banking system, coordinated with a deregulation effort that was a basic source of the bubble in the first place. This is precisely the kind of phenomenon we saw in the 1980s in a number of countries around the world—Scandinavia and other places. That is where the bubble came from.

What was the role of monetary policy? The only place that monetary policy played a role was that in 1989 it intentionally tried to prick the bubble. It raised interest rates sharply in precisely the kind of program that is being suggested here. It did succeed in pricking the bubble. Asset prices collapsed and they had a 14-year depression. So, I am not quite sure in what way this is a poster child for these kinds of policies. In any case, this must be at least a neutral case.

Mr. Dugger: As a market person, I want to, as strongly as I can, affirm Mike Mussa's interpretation of this paper. The success of a company like ours depends on having an accurate very long-term view of things, even though our speculations are sometimes extremely short-term. For example, from our perspective one of the interesting long-term characteristics of two largest stock markets that did result in crashes—the United States in 2000 and Tokyo 1990—is that they occurred when the peak ages of the baby boom expansions both reached about 43 years-old. The peak age of the baby boom generation in Japan is almost exactly 10 years older than that in the United States.

What this leads to is a question: When we talk about taking out an insurance premium, where in the economy is the insurance liability? If it were not important for monetary policy to respond to financial institution crises, we wouldn't be doing it. We wouldn't be taking out insurance premiums. Clearly there is a linkage between monetary policy in its immediate context and financial institution conditions. But we have to ask where the liability rests.

One place we might look is very long-term demographic conditions. Though we know very little about it, we know that the present value fiscal burden on the youth generation doubled roughly from the mid-1990s to 2000. Since 2000 it has doubled again to about \$300,000. The present value burden from private sector debt is additional. My sense is that we are talking about taking out insurance through monetary policy to support the economy through household debt expansion, in conjunction with fiscal policies that increase the U.S. long-term fiscal imbalance. If we look for where the insurance liability is, we will

find that it is occurring generationally. If we look for instability, things that have changed eight, nine, ten standard deviations in a very short period, we can see it in this long-term fiscal burden on kids.

Ms. Woodall: I wonder if the case for central banks tightening monetary policy in response to asset-price booms is stronger in the case of house prices rather than share prices? For one reason, a recent IMF study showed that house price booms are much more likely to be followed by a bust than share prices. Another reason would be that people are much more likely to borrow lots to buy a house than to buy shares, so you tend to see a bigger buildup in credit. Lastly, the IMF also showed that a collapse in house prices has much more serious implications for the economy than a collapse in share prices.

Mr. Freedman: I want to pick up on the comment that David Hale made, which is the difference in the situation in which financial intermediation is done largely through institutions, and that of the sort we have seen more recently at least in developed countries, where it is largely through markets. I want to extend it a little bit further. The notion that monetary authorities and supervisory authorities should be in close contact and work together, is more important in the former case. It is easier to see circumstances in which the two authorities sitting down together see a real estate boom fueled by a sharp increase in credit, and the supervisory authority goes out to the banks and says, "Look, you have to be very careful. If you are giving 75 or 80 percent mortgages in circumstances like this, you may find yourself in some difficulty."

It is much harder to envision how you would deal with the situation of the sort we have seen more recently in which it is the surge in the value of household sector mutual funds that is driving the boom. Usually, securities commissions are not in the business of trying to deal with that kind of thing, nor perhaps should they be.

Over and above that, the Bordo and Jeanne paper, which has been referred to a couple of times, has a very interesting conclusion that I

find somewhat odd in one way, which is that if it is a small asset price boom, you don't do anything on the monetary policy side. If it is a very large asset price boom, you don't do anything because in those circumstances you have to raise interest rates so much that you are going to weaken the economy unduly. The only time you want to raise interest rates is if it's a medium equity price boom or medium house price boom. It is hard to envision how, in practice, you can bring that policy prescription into effect. While I am sympathetic to the fact that we have a problem here, it is not obvious to me how to deal with it, particularly in circumstances where most of the intermediation is taking place through markets rather than through financial institutions.

Mr. Kaufman: There is a dilemma here that is difficult to reconcile. When you have increased competition globally and domestically in financial markets, as some of the speakers have indicated here, you need improved supervision. The dilemma is that the improved supervision follows behind the increased competitiveness and the willingness to take risks in the financial markets. There is an attempt to catch up in the supervisory process. That is quite obvious when we had the financial mishaps in 1998 which involved Long Term Capital Management. The supervisors and the regulators did not know the extent of the indebtedness, the arbitraging that was going on, whether it was the central bank or whether it was the stock exchange. There have been many other instances. There is always this effort to catch up to the structural changes in the market. Central banks need to be much more alert to financial extremes and to their excesses and to interdict rather than to allow them to run their course. Unfortunately, they did not do so in the 1990s when the bubble of the late 1990s caused substantial economic and financial distress.

Mr. Greenspan: I would like to reiterate what a couple of speakers have previously said about the 1995-99 period, especially 1999—an issue I raised here a year ago.

It is one thing to make judgments about whether or not you are going to attack asset appreciations especially when you identify them

as somewhat comparable to previous historic bubbles that collapsed. We at the Fed were obviously aware of the fact that the markets were moving well beyond what historical trends suggested was persistent and stable over the longer run. When we began to act against various pressures, we found that modest incremental tightening in monetary policy actually increased the equilibrium stock price, which, indeed, the Borio-White paper references in its conditions.

This is an issue that has not gotten enough evaluation. Having gone up 300 basis points in 1994 and failed to cut off the nascent stock market boom suggested to us that an appropriate policy that would have curtailed or contained the expansion would have been a significant multiple of what we actually did. Our experiences in later years confirmed that. We know, of course, that if we raise rates 1,000 basis points we will knock down any asset bubble. We will also knock down the economy. We also know that we can prevent any asset bubble from ever emerging by engaging in highly inflationary monetary policy, because inflationary monetary policy will assure that equity premiums will never be able to recede to a level which will create a stock market boom. Until we have some insight as to whether a mild tightening of monetary policy will restrain asset price growth—the evidence of the recent past suggests it will not—we need to know more about the orders of magnitude required and not merely stipulate that monetary policy should attack asset price bubbles.

In trying to implement policies to address them, as I indicated last year, led us to conclude that the only policy we had left was to try to effectively address their ultimate diffusing. This was the reason we engaged in some very aggressive easing after it became evident that the bubble was indeed deflating. Whether that will succeed, we of course won't know for awhile. Even if it does succeed, all we know is that it succeeded in this instance. We don't yet know the general principles of how to approach this issue. Clearly, it is a very important question that requires a great deal of our evaluation. The one thing I am sure about is that a mild calibration of monetary policy to address asset price bubbles does not and cannot work by the nature of the way markets function.

Sir Andrew Large: Clearly, the whole debate is really quite relevant for us in the United Kingdom. We have had an inflation target. We have met it with some success. And we have done this even in the context of some imbalance. Personal debt levels have built up to record levels, both on the secured front—which, of course, relates to the housing side—and the unsecured front. The risk we can see. It is hard to evaluate how great the risk is, but the risk is really one of potential behavior change, either as a result of some shock or as a result of people in the personal sector waking up to the realities of the cost of servicing the debt that has been taken on. This could have an impact on monetary policy through the direct impact on consumption, but it also could have an impact on the banks, whose risk models for credit scoring in this field are relatively new, relatively untested to significant behavioral change.

The question of what one does about this is one that exercises us quite a bit. Obviously, we do put out financial stability review points of view to the public on exactly what they might need to be thinking about in relation to debt.

Secondly, we do have a regular basis of dialog with the prudential supervisor, given that we do not actually have responsibility for it at the bank. It is certainly an area that requires deep thought. I have to say that I find the paper, the discussion, and the comments extremely valuable.

Mr. Dudley: I have a lot of sympathy for the less orthodox view. We have been writing about it for a number of years. It seems to me that the key issue that has come out of this discussion is that the U.S. experience is very different than in the experience of the late 1980s and early 1990s in the United States. The U.S. experience in the late 1990s is one of a stock market bubble. The real question that emerges from that is, “Who is responsible for the prudential regulation of the stock market to whisper in the ears of stock market investors that the stock market is either too high or too risky?” I would argue that there probably is a role for the Federal Reserve to play in that. I don’t agree with the authors that the Federal Reserve should tighten monetary policy. I

would agree with the Chairman that tightening monetary policy is probably an overly blunt tool. I am not convinced that the Internet companies' stock prices would go down because short-term interest rates were higher. The Federal Reserve could have played a more constructive role in identifying beliefs held by market participants that probably were not in the center of the probability distribution of likely outcomes. For example, one is the idea that productivity growth was high and that was going to lead to increased corporate profits over the long run, as opposed to those corporate profits being competed away, as what actually turned out to be the case.

Finally, the last thing I would like to say is that we are not just talking about financial sector imbalances here. There is also a real side imbalance that came about in the late 1990s. That is the private-sector imbalance you can see by looking at the difference between private-sector income and spending. In 1997, that first-turned negative went to about 5 percent of GDP in 2000. The turn into negative territory was virtually the only time it had been negative in the 50-year period from 1950 to 2000. So, there really was something beyond the stock market that was telling you that the U.S. economy was out of whack. There was the fact that the private sector's balance had moved sharply into negative territory. I would argue that was another reason that the Federal Reserve probably should have been concerned about what was developing.

Mr. Yamaguchi: I have a brief comment on the Japanese experience, followed by a more general question for Borio and White. With respect to Japan in the 1980s, I can fully endorse the argument put forward by Mike Mussa, including his argument that monetary policy in the late 1980s should probably have been a bit more tighter a little bit sooner. The reasons why the Bank of Japan failed to do so have been discussed in many forums, including my own argument here back in 1999.

My point is that even a little bit tighter monetary policy in Japan in the late 1980s would not have been successful in stopping the financial market developments, particularly the huge credit explosion that mainly went to the property market.

This is because a much stronger, much tighter monetary policy would not have been possible, given there was no inflation and partly because a moderately tighter monetary policy might have added fuel to the asset market developments. I'm obviously underlying the point just made by Chairman Greenspan a few minutes ago. I would think that under the circumstances that we were facing in our country in the late 1980s, a better cooperation with prudential authorities would have been desirable and much needed. Here, I come to a question that I would like to pose to the presenters. How can it be possible for the central bank and the financial supervisory authority to arrive at a reasonable, pragmatic, and effective state of cooperation since the supervisory authority, in some countries at least, is migrating to the independent financial services authority, which appears to be largely uninterested in macroeconomic development?

Mr. Cotis: First of all, it is an excellent paper and I share the author's view that situations where financial liberalization has been ill-designed and inflation expectations are strongly anchored may generate macroeconomic instability. The economy could indeed become overextended, with price signals late to come. Now, a very short and modest remark about indicators and surveillance. It would be good to have indicators of financial imbalances available, but I don't know whether this is, in practice, possible. It is probably worth trying to investigate. However, my own experience as a former European policymaker is that a lot of progress could still be made in the selection and practical use of traditional real-side indicators such as output gaps. These indicators are often poorly designed, poorly used, and sometimes do not "bark" when you need them. There is still room for progress in this area.

Mr. Iwata: I would like to add a comment about the Japanese difficulty in dealing with asset deflation. Our long-term, postwar land price bubble that burst in the middle 1980s had a far-reaching impact, not only on the macroeconomic area, but also on the banking and financial system in Japan because the banks provided credit based on using land value as collateral. The bursting of this land price bubble had a very strong impact on the Japanese economy. If you

look at the ratio of total land value compared with nominal GDP during the bubble period, that ratio almost reached 6. In the United States, that ratio is about 1, and today that ratio in Japan is about 3, which was its value before the bubble. In addition to this financial problem, we also have structure changes in our population. Our population is aging more rapidly than expected. The smaller number of children and the aging population both work to reduce the fundamental value of land. Therefore, land prices today are decreasing at about 5 percent, although equity prices have picked up slightly. Therefore, the structural changes in the real economy have added to the difficulty of monetary management in coping with this property asset value bursting.

Mr. Meltzer: I would like to comment about a point made earlier about risk management. The issue here is a question of separating adequately the private and social risks and costs. It isn't the job—at least in my view—of the central bank to be concerned with trying to prevent foolishness, mistakes, over estimates, or to substitute its judgment about what the correct prices for real estate and the stock market should be.

There are two ways to deal with this problem. One is the way that Borio and White have talked about, and that is the one that is wrong-headed and goes in the wrong direction: using monetary policy to try to substitute the judgment of the monetary policy officials for the judgments of the marketplace.

The other, which is the social way of dealing with the problem, is a broad lender-of-last-resort function. That is, let the people who make the mistakes pay for those mistakes. That is a very important part of the job of getting discipline in the system, and it is one of the things that is missing in many of our systems. At the same time, you manage socially the systemic risks that occur because of that behavior.

The major problem in Japan and the United States in the past, and elsewhere is to develop ways of making the managements fail and lose

when they make mistakes, which is the private part, while having as little as possible disruption to market relationships, which is the social responsibility. That is where the broader thought about the lender of last resort is badly needed. What kinds of institutional structures are there going to be that are going to try to smooth the risk for society, while at the same time making the people who make mistakes lose as a result of their errors.

Mr. Borio: First of all, I would like to thank Mark Gertler and the audience for their very useful remarks. Let me group the questions that have been raised. I will certainly not be able to answer all of them.

There was a set of questions on the properties and the nature of the indicators. One thing that is important to realize is that we were very careful to make sure that the information used to construct the indicators was information that you have *ex ante*, in real time. We are not using *ex post* information in trying to evaluate the possible risk of problems for the economy or the financial system.

Individual components versus combinations of signals: Gertler went through a list of possible drawbacks of individual components. Let me stress again that what is important is to combine them in a reasonable fashion. That is essentially what we try to do in the paper. Just looking at asset prices in isolation is not really going to give you a reasonable answer. One additional problem of this type of analysis is that you inevitably have to rely on cross-sectional information. If you look at individual countries, these episodes are rare and far between. You absolutely have to use your own judgment as to how far you can extrapolate or draw inferences from experience in other countries for your own country.

Equity versus real estate: Indeed, in general, I would argue that real estate prices, for the reasons mentioned in the discussion, are more relevant than equity prices for some of the mechanisms that we are describing. It was rather surprising to us when we started this exercise that we could go as far as we did only on the basis of equity prices.

The main reason why we could not use real estate prices is a question of availability.

Stability of the relationships: It is absolutely true that whenever one is looking at a particular relationship over a particular period, there is no guarantee that that relationship will hold also in the future. Of course, the type of relationship we are talking about is something that held in the 1980s, in the 1990s, and partly in the 1970s. I would suspect that if you were to go back in time you could find that it was also a very useful relationship in the episodes of financial instability that we saw in the pre-World War I period. Improvements in risk management are bound to have an effect on the statistical relationships we have uncovered. They would affect, for example, the link between our indicators and the timing or possibly even the occurrence of particular financial crises. These indicators are only supposed to serve as a kind of starting point for a more thorough analysis of financial vulnerabilities. This is basically what is being done in a number of forums these days.

Deregulation: Is it deregulation per se or is it a liberalized financial system that can cause instability? It is hard to tell. It is really difficult. We don't have much evidence here. The only evidence that we have, again, is the pre-World War I period. What I draw from this is that probably it is not just the deregulation process itself, but the forces that exist within the financial system—those that give rise to the procyclicality that we discuss in detail in the paper—that are strong enough to lead, occasionally, to episodes of instability of the kind that we described.

A very important question: Why monetary policy and why not just prudential policy? It is obvious that the first thing you would like to use is prudential policy, particularly if you are focusing on financial stability. But as some people have noted and as discussed at length in the paper, it is very difficult to use prudential tools in order to address problems that are perceived to arise essentially from systemwide macroeconomic imbalances. This has to do with the nature of the

tools. It has also to do with the nature of the culture of the supervisors. This is what can be frustrating and what, in fact, started some of this work. If you talk to the supervisors, they will agree with the diagnosis of the problem, but they will say, "But surely we cannot do anything about this. It must be the monetary authorities who have to take responsibility for this." When you talk to the monetary authorities, you lay out the problem and they say, "Yes, this is a reasonable problem. But it is not "us," but the prudential authorities that have to take action." The question then is: Who is going to take action?

I have only one minute, so let me turn to one final point: the effectiveness of monetary policy. One should make a clear distinction here between how effective monetary policy would have been in particular circumstances in the past and how effective monetary policy might be in the future. The reason why I am saying this is that if you have incorporated this type of mechanism within the framework of your policy, within your paradigm of how the economy works, then you may well find that the effectiveness of your monetary policy tools is going to be enhanced. In fact, it could actually reduce the probability of these episodes arising in the first place, because market participants would be more cautious if they feared a possible reaction on the part of the monetary authorities.

Think of the analogy with the anchoring of inflation expectations. By anchoring expectations, we can reduce the extent to which a one-off shock is translated into a permanent inflationary process. We had a long discussion about this in the early part of the session today. The shocks themselves are endogenous with respect to the monetary policy regime. Here, it is a little bit similar. You might expect that financial instability shocks of the kind we described may themselves be endogenous with respect to a policy regime in which you see the authorities caring about them and being prepared to act upon them. Regarding the political economy problems—as we argued in the paper and going back to the discussion we had earlier today—it is a question of how you really think about the workings of the economy. Just as in the 1970s changes in the paradigm laid the basis for a

change in the policy response that allowed us to bring down inflation, there is a chance that, to the extent that we could reach a consensus on this type of paradigm, we could also be able to address the problem more satisfactorily.

Mr. Gertler: It is true that bursts in real estate prices are more frequent than equity prices. But the Bordo-Jeanne evidence suggests that this is largely associated with single cosmopolitan areas. It is mainly relevant to countries dominated by a single cosmopolitan area. I'd also more generally refer everybody again to the Stock and Watson paper, which shows that housing prices per se have no stable forecasting power for economic activity. This is not surprising because housing prices are largely endogenous and sensitive to monetary policy.