Commentary: Housing and the Monetary Transmission Mechanism

James D. Hamilton

Governor Mishkin has done a nice job of categorizing the various channels by which the consequences of monetary policy might be transmitted to the economy. I'd like to take a step back and reflect on what are the instruments of monetary policy, the transmission of whose effects we're discussing.

The instrument of monetary policy that we tend to think of first is the time path of short-term interest rates. It's natural to start there because it's easy to quantify exactly what the Fed is doing.

But another instrument of monetary policy that I think needs to be discussed involves regulation and supervision of the financial system. This is inherently a messier question. It's harder to quantify the effects, and many of the issues I'm going to be raising today may be outside the current regulatory authority of the Federal Reserve itself. Indeed, one way you can view the history of our financial system is that a certain type of problem becomes recognized, we develop regulations to deal with it, and then new parallel institutions evolve, outside that regulatory framework, where the same kind of problem arises in a new setting.

Although the regulatory question is messier to address, I think we'd all agree there have been periods historically where it played a key role in determining the course of events. The most recent experience might be the 1980s, for which you all know the story.[1] As a result of a series of bad luck and bad decisions, a significant number of U.S. banks and savings and loans at the time ended up with a position of negative net equity. But that did not prevent them from being able to borrow large sums at favorable rates, thanks to deposit insurance. The decision problem for an entity in that situation has a clear solution—with the lower part of the distribution truncated, you want to maximize the variance of the investments you fund with that borrowing. That recklessness in lending was a factor aggravating both the boom and the subsequent bust of that episode. Fortunately, through a combination of good luck and good policies, we were able to correct the resulting mess in a way that avoided the more severe problems that some of us were anticipating at the time.

Why do I suggest that there might be something similar going on in the current environment? I'm basically very puzzled by the terms of some of the mortgage loans that we've seen offered over the last few years—for example, mortgages with no down payment, negative amortization, no investigation or documentation of the borrowers' ability to repay, and loans to households who had demonstrated problems managing simple credit card debt.

The concern that I think we should be having about the current situation arises from the same economic principles as a classic bank run and potentially applies to any institution whose assets have a longer maturity than its liabilities. The problem arises when the losses on the institution's assets exceed its net equity. Short-term creditors then all have an incentive to be the first one to get their money out. If the creditors are unsure which institutions are solvent and which are not, the result of their collective actions may be to force some otherwise sound institutions to liquidate their assets at unfavorable terms, causing an otherwise solvent institution to become insolvent.

In the traditional story, the institution we were talking about was a bank, its long-term assets were loans, and its short-term liabilities were deposits. In the current situation, the institution could be a

bank or investment fund, the assets could be mortgage-backed securities or their derivatives, and the short-term credit could be commercial paper. The names and the players may have changed, but the economic principles are exactly the same. How much of a worry this might be depends on the size of specific potential losses for Institution X relative to its net equity and the volume of short-term loans that could potentially be disrupted as a result.

This is not just a theoretical possibility. My understanding is that this is exactly what happened to Germany's IKB Deutsche Industriebank on August 9 to set off the tumult in global short-term capital markets.[2]

Governor Mishkin discusses the potential role of real estate prices in the monetary transmission mechanism. I am seeing that not as an issue in its own right, but instead as a symptom and a propagation mechanism of the broader problem. It is a symptom in the sense that, if loans were extended to people who shouldn't have received them, real estate prices would have been bid up higher than they should have been. And it is a propagation mechanism in the sense that, as long as house prices continued to rise, all sins were forgiven. Even a completely fraudulent loan would not go into default when there's sufficient price appreciation, since the perpetrator is better off repaying the loan in order to enjoy the capital gain.

The problem is that, as this process gets undone, both effects operate in reverse. A credit crunch means that some people who should get loans don't receive them, depressing real estate prices, and as prices fall, some loans will become delinquent that otherwise might not. If such fundamentals are indeed contributing factors on the way up and the way down, the magnitude of the resulting decline in real estate prices, and their implications for default rates, could be much bigger than the reassuring numbers Mishkin invites us to remember based on the historical variability of these series. What worries me in particular is, if we see this much in the way of delinquencies and short-term credit concerns in the current economic environment, in which gross domestic product (GDP) has still been growing and house price declines are quite modest, what can we expect with a full-blown recession and, say, a 20% decline in average real estate values?

Now, the question that all this leads me to ask is why—why did all this happen? Why were loans offered at such terms? I'm not sure that I have all the answers, but I am sure that this is the right question. And if you reject my answers, I hope it's because you have even better answers, and not because you dismiss the question.

It seems the basic facts highlighted in Green and Wachter's paper yesterday might be a good place to begin. Since 1990, U.S. nominal GDP has increased about 80% (logarithmically). Outstanding mortgage debt grew 50% more than this, raising the debt/GDP ratio from about 0.5 to 0.8. Mortgage-backed securities guaranteed by Fannie and Freddie grew 75% faster than GDP, while mortgages held outright by the two government-sponsored enterprises (GSEs) increased 150% more than GDP. The share of all mortgages held outright by Fannie and Freddie grew from 4.7% in 1990 to 12.9% in 2006, which includes $170 billion in subprime AAA-rated private label securities. The fraction had been as high as 20.5% in 2002.[3] It is hard to escape the inference that expansion of the role of the GSEs may have had something to do with the expansion of mortgage debt.

This acquisition of mortgages was enabled by issuance of debt by the GSEs, which currently amounts to about $1.5 trillion. Investors were willing to lend this money to Fannie and Freddie at terms more favorable than are available to other private companies, despite the fact that the net equity of the enterprises—about $70 billion last year—represents only 5% of their debt and only 1.5% of their combined debt plus mortgage guarantees. If I knew why investors were so willing to lend to the GSEs at such favorable terms, I think we'd have at least part of the answer to the puzzle.

And I think the obvious answer is that investors were happy to lend to the GSEs because they thought that, despite the absence of explicit government guarantees, in practice the government would never allow them to default. And which part of the government is supposed to ensure this, exactly? The Federal Reserve comes to mind. I'm thinking that there exists a time path for short-term interest rates that would guarantee a degree of real estate inflation such that the GSEs would not default. The creditors may have reasoned, "The Fed would never allow aggregate conditions to come to a point where

Fannie or Freddie actually default." And the Fed says, "Oh, yes, we would." And the market says, "Oh, no, you wouldn't."

It's a game of chicken. And one thing that's very clear to me is that this is not a game that the Fed wants to play because the risk-takers are holding the ace card, which is the fact that, truth be told, the Fed does not want to see the GSEs default. None of us do. That would be an event with significant macroeconomic externalities that the Fed is very much committed to avoid.

While I think that preserving the solvency of the GSEs is a legitimate goal for policy, it is equally clear to me that the correct instrument with which to achieve this goal is not the manipulation of short-term interest rates, but instead, stronger regulatory supervision of the type sought by the Office of Federal Housing Enterprise Oversight (OFHEO) Director James Lockhart, specifically, controlling the rate of growth of the GSEs' assets and liabilities, and making sure the net equity is sufficient to ensure that it's the owners, and not the rest of us, who are absorbing any risks. So here's my key recommendation—any insitution that is deemed to be "too big to fail" should be subject to capital controls that assure an adequate net equity cushion.

While I think the answer to our question may begin here, it certainly doesn't end there, since the more problematic mortgages have all been funded outside the GSEs. Moreover, the growth of mortgages held outright by the GSEs has stabilized since 2005, and we simply saw privately issued mortgage-backed securities jump in to take their place, with their share of U.S. mortgages spiking from 8.6% in 2003 to 17.4% in 2005. One might argue that the buyers of these private securities may have made a similar calculation, insofar as the same aggregate conditions that keep Fannie and Freddie afloat would perhaps also be enough to keep their noses above water. Or perhaps Professor Shiller is right, that psychologically each investor deluded himself into thinking it must be OK because he saw everybody else doing the same thing. Or maybe they were more rationally thinking, "The Fed wouldn't let us all go down, would it?" And the Fed says, "Oh, yes, we would." And once again, regulation, not selecting an optimal value for the fed funds target, has to be the way you want to play that game.

If these bad loans were all a big miscalculation, perhaps that is something the Fed might consider addressing as a regulatory problem as well. The flow of accurate information is absolutely vital for properly functioning capital markets. I have found myself frustrated, in looking through the annual reports of some of the corporations and funds involved in this phenomena, at just how difficult it is to get a clear picture of exactly where the exposures are. I think the accounting profession has let us down here, which you might describe as a kind of networking equilibrium problem. But if the Federal Reserve were to develop and insist on certain standards of accounting transparency for its member institutions, that might help to be a stimulus to get much more useful public documentation for everybody.

It also might be useful to revisit whether Fed regulations themselves may be contributing to this misinformation. Frame and White (2007) report that U.S. depository institutions face a 4% capital-to-assets requirement for mortgages held outright but only a 1.6% requirement for AA-rated mortgage-backed securities, which seems to me to reflect the (in my opinion, mistaken) assumption that cross-sectional heterogeneity is currently the principal source of risk for mortgage repayment. Perhaps it's also awkward for the Fed to declare that agency debt is riskier than Treasury debt and yet treat the two as equivalent for so many purposes.

Of course I grant the traditional argument that regulation necessarily involves some loss of efficiency. But to that my answer is, It's worth a bit of inefficiency if it enables us to avoid a full-fledged financial crisis. I'd also point out that, if our problems do indeed materially worsen, the political calls for regulation will become impossible to resist, and much of the cures recommended by the politicians would create dreadful new problems of their own—that too is part of the historical pattern we've seen repeated many times. For this reason, I think it would be wise for the Federal Reserve to be clear on exactly what changes in regulatory authority could help prevent a replay of these developments and preposition itself as an advocate to get these implemented now. Such steps will also be

necessary, I think, to restore confidence in the system, if the situation indeed worsens from here.

Now, I should also emphasize that understanding how we got into this situation is a different question from how we get out. Tighter capital controls by themselves right now would surely make the matter worse, and allowing an expansion of the GSE liabilities may be as good a short-term fix as anybody has. But I do not think we should do so without seeing clearly the nature of the underlying problem and certainly cannot think that by itself expansion of GSE liabilities represents any kind of long-run solution.

Finally, in closing, suppose that I'm wrong about all of this. Suppose that the developments I've been talking about—the appearence of loan originators in every strip mall, anxious to lend to anyone, and other parties just as anxious to buy those loans up—suppose that it is all a response to the traditional monetary instrument, the manipulation of the short-term interest rate. After all, a 1% short-term rate, 6% 30-year mortgage rate, and 13% house price appreciation, such as we saw in 2004, is plenty of incentive to borrow and repay. I used to believe that this was sufficient to account for all that we were seeing, and many of you perhaps still think that way. But if it were the case that all these institutional changes are just a response to interest rates, it means that the lags in the monetary transmission process are substantially longer than many of us had supposed. If people were still buying houses in 2006 as a result of institutions that sprung up from the conditions in 2004, it means that if we thought in 2004 that overstimulation could easily be corrected by bringing rates back up, then we would have been wrong. And likewise, suppose you believe that the pain we're seeing now, and may continue to see for a matter of years, until the new loan originators all go out of business and recent buyers are forced out of their homes, is simply a response to a monetary tightening that ended a year ago. If so, then if we think today that, if things get really bad, we can always fix things by rapidly bringing interest rates back down—well, then, once again, we'd be wrong.

Endnotes

[1]See for example Kane (1989) and Keeley (1990).

[2] *Wall Street Journal*, August 10, 2007, p. A1.

[3]Sources: Office of Federal Housing Enterprise Oversight, Enterprise Share of Residential Mortgage Debt Outstanding: 1990–2007Q1, and Lockhart (2007).

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