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UA36I/29 Gary Ransdell - Fed. Reserve Board - American Economic Association Annual Meeting

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Excerpts follow from Chairman Bernanke's speech before the AEA entitled "Monetary Policy and the Housing Bubble."
(Excerpts from Vice Chairman Kohn's speech are included below.)

This document is not an official transcript. The text is selectively drawn from the original and summarized. Full text: http://www.federalreserve.gov/newsevents/speech/bernanke20100103a.htm
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Even as we continue working to stabilize our financial system and reinvigorate our economy, it is essential that we learn the lessons of the crisis so that we can prevent it from happening again. Because the crisis was so complex, its lessons are many…both the private sector and financial regulators must improve their ability to monitor and control risk-taking. The crisis revealed not only weaknesses in regulators' oversight...but also, more fundamentally, important gaps in the architecture of financial regulation around the world.

As with regulatory policy, we must discern the lessons of the crisis for monetary policy. However, the nature of those lessons is controversial. Some observers have assigned monetary policy a central role in the crisis…others have taken the position that policy was appropriate for the macroeconomic conditions that prevailed....Obviously, in light of the economic damage inflicted by the collapses of two asset price bubbles over the past decade, a great deal more than historical accuracy rides on the resolution of this debate.

U.S. Monetary Policy, 2002-2006

I will begin with a brief review of U.S. monetary policy during the past decade, focusing on the period from 2002 to 2006.

The target federal funds rate was lowered quickly in response to the 2001 recession, from 6.5 percent in late 2000 to 1.75 percent in December 2001 and to 1 percent in June 2003. After reaching the then-record low of 1 percent, the target rate remained at that level for a year. In June 2004, the FOMC began to raise the target rate, reaching 5.25 percent in June 2006 before pausing.

The low policy rates during the 2002-06 period were accompanied at various times by "forward guidance" on policy from the Committee. For example, beginning in August 2003, the FOMC noted in four post-meeting statements that policy was likely to remain accommodative for a “considerable period.”

The aggressive monetary policy response in 2002 and 2003 was motivated by two principal factors…the recovery remained quite weak and "jobless" into the latter part of 2003 (and) the FOMC's policy response also reflected concerns about a possible unwelcome decline in inflation. Taking note of the painful experience of Japan, policymakers worried that the United States might sink into deflation and that, as one consequence, the FOMC's target interest rate might hit its zero lower bound, limiting the scope for further monetary accommodation. FOMC decisions during this period were informed by a strong consensus among researchers that, when faced with the risk of hitting the zero lower bound, policymakers should lower rates preemptively, thereby reducing the probability of ultimately being constrained by the lower bound on the policy interest rate.

Evaluating the Tightness or Ease of Monetary Policy

Although macroeconomic conditions certainly warranted accommodative policies in 2002 and subsequent years, the question remains whether policy was nevertheless easier than necessary. Since we

cannot know how the economy would have evolved under alternative monetary policies, any answer to this question must be conjectural.

One approach used by many who have addressed this question is to compare Federal Reserve policies during this period to the recommendations derived from simple policy rules, such as the so-called Taylor rule, developed by John Taylor of Stanford University. This approach is subject to a number of limitations. Notably, simple policy rules like the Taylor rule are only rules of thumb, and reasonable people can disagree about important details of the construction of such rules. Moreover, simple rules necessarily leave out many factors that may be relevant to the making of effective policy in a given episode....That said, as much of the debate about monetary policy after the 2001 recession has made use of such rules, I will discuss them here. (Please see the full speech for a discussion of the Taylor rule equation.)

The most commonly cited evidence that monetary policy was too easy during the period from 2002 to 2006, is that actual federal funds rate was is below the values implied by the Taylor rule--by about 200 basis points on average over this five-year period. Room for disagreement exists. For example, some empirical and simulation evidence suggests that the responsiveness of policy to the output gap…should be higher than the value originally chosen by Taylor…(and thus) lead the Taylor rule to recommend somewhat lower policy rates during recessions and their aftermaths. The prescriptions of the Taylor rule may also depend sensitively on how inflation and the output gap are measured. The difficulties in measuring the output gap, particularly in real time, are well known. The choice of inflation measure may also be consequential....As it happens, the choice of inflation measure matters for the interpretation of this episode, as alternative measures gave policymakers somewhat different signals.

However, the most significant concern regarding the use of the standard Taylor rule as a policy benchmark is its implication that monetary policy should depend on *currently observed* values of inflation and output.

Because monetary policy works with a lag, effective monetary policy must take into account the *forecast* values of the goal variables, rather than the current values….The distinction between current and forecast values does not always matter much, as (for example) high levels of inflation or output today may signal high levels of those variables in the future. However, over the past decade, the distinction between current and forecast inflation has been an important one. On several occasions surges in energy prices led to increases in overall inflation. According to the standard Taylor rule…these episodes should have led to a significant tightening of monetary policy. However, both the FOMC and private forecasters expected these increases in energy prices to subside--correctly as it turned out--and therefore did not much adjust their medium term *forecasts* for inflation. Consequently policy was not tightened as much as would have been called for by the standard Taylor rule.

Put another way, the standard Taylor rule makes no distinction between increases in inflation expected to be temporary and those expected to be longer lasting. In practice, however, policymakers have responded less to increases in inflation that they expect to be temporary, a reasonable strategy given that monetary policy affects inflation only with a significant lag.

An alternative Taylor rule (that replaces the current inflation rate with a forecast of inflation over the current and subsequent three quarters) prescribes a path for policy that is much closer to that followed throughout the decade, including recent years. In other words, when one takes into account that

policymakers should and do respond differently to temporary and longer-lasting changes in inflation, monetary policy following the 2001 recession appears to have been reasonably appropriate, at least in relation to a simple policy rule.

Which version of the Taylor rule--the standard version, that uses current values of inflation, or the alternative version, that employs inflation forecasts--is the more reliable guide? I have explained my preference for using inflation forecasts rather than actual inflation in the policy rule: Monetary policy works with a lag, and therefore policy decisions must be forward looking.

A proponent of the standard version would have recommended that the FOMC raise the policy rate to a range of 7 to 8 percent through the first three quarters of 2008, just after the recession peak and just before the intensification of the financial crisis in September and October--a policy decision that probably would not have garnered much support among monetary specialists. The version of the Taylor rule based on forecast inflation explains both the course of monetary policy earlier in the past decade as well as the decision not to respond aggressively to what did in fact turn out to be a temporary surge in inflation in 2008. This comparison suggests that the Taylor rule using forecast inflation is a more useful benchmark, both as a description of recent FOMC behavior and as a guide to appropriate policy.

We have not yet addressed the possibility that accommodative policies--though perhaps appropriate for achieving medium-term inflation and output goals--inadvertently contributed to the housing bubble. I turn now to that question.

Monetary Policy and the Housing Bubble

The beginning of the run-up in housing prices predates the period of highly accommodative monetary policy. On the other hand, the most rapid price gains were in 2004 and 2005, when the annual rate of house price appreciation was between 15 and 17 percent. Thus, the timing of the housing bubble does not rule out some contribution from monetary policy.

First, can accommodative monetary policies during this period reasonably account for the *magnitude* of the increase in house prices that we observed? If not, what does account for it? Second, house prices rose significantly during this period in many industrialized countries, not just in the United States. If monetary policy was an important source of house price appreciation in the United States, it seems reasonable to expect that, in an international comparison, countries with easier monetary policies should have been more likely to have significant rises in house prices as well. Is that the case?

With respect to the magnitude of house-price increases: Economists who have investigated the issue have generally found that, based on historical relationships, only a small portion of the increase in house prices earlier this decade can be attributed to the stance of U.S. monetary policy. This conclusion has been reached using both econometric models and purely statistical analyses that make no use of economic theory.

To demonstrate this finding in a simple way, I will use a statistical model developed by Federal Reserve Board researchers that summarizes the historical relationships among key macroeconomic indicators, house prices, and monetary policy. The statistical technique employed in this model, known as vector autoregression, is familiar to econometricians who seek to analyze the joint evolution of a collection of data series over time. (Please see the full speech for a discussion of the model.)

The (model) suggests that, although monetary policy during the period following the 2001 recession was accommodative, it was not inconsistent with the historical experience, given the macroeconomic environment of the time. (However) the rise in house prices falls well outside the predictions of the model.

Thus, when historical relationships are taken into account, it is difficult to ascribe the house price bubble either to monetary policy or to the broader macroeconomic environment. A possible objection to this conclusion is that the responsiveness of house prices to monetary policy may have been different in the past decade than it was in the 1980s and 1990s (because) low policy rates feed through to monthly mortgage payments more directly when the mortgage interest rate is adjustable and tied to short-term rates.

Using the Board's principal macroeconometric model, staff simulated the effects on the economy and on mortgage rates of a monetary policy that followed the original 1993 Taylor rule, taking into account the feedback effects from tighter policy to the economy. Under this scenario, they found that the initial ARM rate would have been about 0.71 percentage point higher than in the baseline and that the initial monthly payment for an ARM borrower would have increased by only about $75. This result does not suggest that moderately tighter monetary policy would have dissuaded many potential ARM borrowers.

More exotic mortgages show much more significant reductions in the initial monthly payment than could be obtained through a standard ARM. Clearly, for lenders and borrowers focused on minimizing the initial payment, the choice of mortgage type was far more important than the level of short-term interest rates. The availability of these alternative mortgage products proved to be quite important and, as many have recognized, is likely a key explanation of the housing bubble.

The use of these nonstandard features increased rapidly from early in the decade through 2005 or 2006. The picture that emerges is consistent with many accounts of the period: At some point, both lenders and borrowers became convinced that house prices would only go up. Borrowers chose, and were extended, mortgages that they could not be expected to service in the longer term. They were provided these loans on the expectation that accumulating home equity would soon allow refinancing into more sustainable mortgages. For a time, rising house prices became a self-fulfilling prophecy, but ultimately, further appreciation could not be sustained and house prices collapsed.

This description suggests that regulatory and supervisory policies, rather than monetary policies, would have been more effective means of addressing the run-up in house prices.

Let me turn now to the international evidence on the link between monetary policy and house price appreciation. A recent study of 20 industrial countries by the International Monetary Fund (IMF) and replicated by Board staff (found that) house price appreciation in the United States, though of course large in absolute terms, was actually less than that in the majority of countries in the sample.

Interestingly, essentially all of these countries had monetary policies easier than that prescribed by the Taylor rule, (and) the relationship between the stance of monetary policy and house price appreciation across countries is quite weak. For example, 11 of the 20 countries in the sample had both tighter monetary policies and greater house price appreciation than the United States. (While) tighter policy is associated with somewhat slower house price appreciation, the relationship is statistically insignificant and economically weak; moreover, monetary policy differences explain only about five percent of the

variability in house price appreciation across countries.

What does explain the variability in house price appreciation across countries? In previous remarks I have pointed out that capital inflows from emerging markets to industrial countries can help to explain asset price appreciation and low long-term real interest rates (Bernanke, 2005, 2007). Today is not the appropriate time to revisit that hypothesis in any detail, but I would like to take a moment to show that accounting for capital inflows is likely to prove fruitful for explaining cross-country differences.

(Examining) the relationship between capital inflows and house price appreciation for the same set of countries as in the (IMF study shows that) countries in which current accounts worsened and capital inflows rose had greater house price appreciation over this period. The relationship is highly significant, both statistically and economically, and about 31 percent of the variability in house price appreciation across countries is explained. This simple relationship requires more interpretation before any strong conclusions about causality can be drawn; in particular, we need to understand better why some countries drew stronger capital inflows than others. I will only note here that, as more accommodative monetary policies generally reduce capital inflows, this relationship appears to be inconsistent with the existence of a strong link between monetary policy and house price appreciation.

Conclusions and Policy Implications

My objective today has been to review the evidence on the link between monetary policy in the early part of the past decade and the rapid rise in house prices that occurred at roughly the same time.

Policy during that period--though certainly accommodative--does not appear to have been inappropriate, given the state of the economy and policymakers' medium-term objectives….(Also) the magnitude of house price gains seems too large to be readily explainable by the stance of monetary policy alone (and) cross-country evidence shows no significant relationship between monetary policies and the pace of house price increases.

What policy implications should we draw? I noted earlier that the most important source of lower initial monthly payments…was the increasing use of more exotic types of mortgages and the associated decline of underwriting standards. That conclusion suggests that the best response to the housing bubble would have been regulatory, not monetary. Stronger regulation and supervision aimed at problems with underwriting practices and lenders' risk management would have been a more effective and surgical approach….Moreover, regulators, supervisors, and the private sector could have more effectively addressed building risk concentrations and inadequate risk-management practices without necessarily having had to make a judgment about the sustainability of house price increases.

The Federal Reserve and other agencies did make efforts to address poor mortgage underwriting practices. In 2005, we worked with other banking regulators to develop guidance for banks on nontraditional mortgages, notably interest-only and option-ARM products. In March 2007, we issued interagency guidance on subprime lending, which was finalized in June. After a series of hearings that began in June 2006, we used authority granted us under the Truth in Lending Act to issue rules that apply to all high-cost mortgage lenders, not just banks. However, these efforts came too late or were insufficient to stop the decline in underwriting standards and effectively constrain the housing bubble.

The lesson I take from this experience is not that financial regulation and supervision are ineffective for controlling emerging risks, but that their execution must be better and smarter. The Federal Reserve is

working not only to improve our ability to identify and correct problems in financial institutions, but also to move from an institution-by-institution supervisory approach to one that is attentive to the stability of the financial system as a whole. Toward that end, we are supplementing reviews of individual firms with comparative evaluations across firms and with analyses of the interactions among firms and markets. We have further strengthened our commitment to consumer protection. And we have strongly advocated financial regulatory reforms, such as the creation of a systemic risk council….The crisis has shown us that indicators such as leverage and liquidity must be evaluated from a systemwide perspective as well as at the level of individual firms.

Is there any role for monetary policy in addressing bubbles? (M)onetary policy is a blunt tool, and interest rate increases in 2003 or 2004 sufficient to constrain the bubble could have seriously weakened the economy at just the time when the recovery from the previous recession was becoming established. That said, having experienced the damage that asset price bubbles can cause, we must be especially vigilant in ensuring that the recent experiences are not repeated. All efforts should be made to strengthen our regulatory system….However, if adequate reforms are not made, or if they are made but prove insufficient to prevent dangerous buildups of financial risks, we must remain open to using monetary policy as a supplementary tool for addressing those risks--proceeding cautiously and always keeping in mind the inherent difficulties of that approach.

Excerpts follow from Vice Chairman Kohn's speech before the AEA entitled "Monetary Policy in the Crisis."

This document is not an official transcript. The text is selectively drawn from the original and summarized. Full text: http://www.federalreserve.gov/newsevents/speech/kohn20100103a.htm

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Monetary Policy Past

In August 2007, we recognized that we were coping with a potentially serious disruption in financial markets that could feed back adversely on the economy and job creation. Lower policy interest rates were not going to be enough; we had to operate on multiple fronts.

Our first actions were to ease the access of depository institutions to Federal Reserve liquidity. To counter the financial shocks hitting the economy and support the flow of credit, we then needed to extend liquidity support to a range of nonbank institutions and to some financial markets to break the vicious spiral of uncertainty and fear feeding back on asset values, credit availability, and the economy. We also found we needed to innovate by making liquidity available through auctions as well as standing facilities to overcome firms' reluctance to borrow from the Federal Reserve.

(To offset an expected weakening in aggregate demand), we began to lower the federal funds rate in September 2007, well before any hard evidence had become available regarding the magnitude of the restraint that it might impose on economic activity. As it became increasingly evident over the course of 2008 that the financial disruptions were sending the U.S. economy into recession, we picked up the pace of reductions in our federal funds rate target.

To ease financial conditions further even after our policy interest rates had approached zero, we needed to operate directly on longer-term segments of the financial markets. Our purchases of agency-guaranteed mortgage-backed securities (MBS), agency debt, and Treasury securities evidently were successful in reducing long-term interest rates.

To (assist) market participants (in formulating) expectations for the future path of interest rates, FOMC statements have noted that exceptionally low rates will likely be warranted for an extended period.

(To help keep) inflation expectations anchored (the FOMC has reported) the long-term inflation rates Committee participants view as most consistent with (the Fed's) dual mandate.

In the absence of any other governmental agency having the authority to fill the role, we have lent to stabilize several systemically important institutions….(W)e have urged the Congress to enact other means of safeguarding financial stability in such circumstances while imposing costs on shareholders, management, and, whenever possible, creditors.

Monetary Policy Present

(Because of monetary, fiscal and financial policies and the natural resilience of the economy, there has recently been) a marked improvement in financial markets and the beginnings of a recovery in economic activity.

Financial markets are performing much better now than they were in early 2009….The Federal Reserve is winding down and closing most of its extraordinary liquidity windows….With markets improving and the economy expanding, the FOMC is tapering down its purchases of Treasury, MBS, and agency securities.

But the cost of credit remains relatively high and its availability relatively limited for many borrowers. Some securitization markets continue to be effectively closed. Under these circumstances, some borrowers will be more dependent than in the past on banks for credit, but banks are still reluctant and very cautious lenders. Banks have been reducing their book of loans for about a year; in part, this drop reflects weaker demand (for credit) (but) also results from cutbacks in supply. I expect bank credit to turn around only slowly as banks rebuild capital and become less uncertain about economic prospects.

Lingering credit constraints are a key reason why I expect the strengthening in economic activity to be gradual and the drop in the unemployment rate to be slow. Even as the impetus from fiscal policy and the inventory cycle wanes later in 2010, private final demand should be bolstered by further improvements in securities markets and the gradual pickup in credit availability from banks. In addition, spending on houses, consumer durables, and business capital equipment should rebound….(But) the odds are that the pickup in spending will not be very sharp.

(With) considerable persisting slack in labor and product markets, and with productivity having increased substantially cost and price inflation should remain quite subdued. (H)eadline inflation should retreat toward core inflation. Some further slowing (in core inflation) is possible if the economic rebound is as gradual as I think it is likely to be.

Monetary Policy Future

We have no shortage of tools (including payment of interest on reserves, reverse repurchases, offering banks term deposit facilities, and even possibly selling assets) for firming the stance of (monetary) policy. We will be able to unwind our actions when and as appropriate.

The fiscal situation will not impede timely tightening. (A) large and growing federal deficit will not stop the Federal Reserve from exiting from current policies when that's needed to keep prices stable and the

economy on a path to sustainable high employment....We will need to begin withdrawing extraordinary monetary stimulus well before the economy returns to high levels of resource utilization…(w)e will need to be flexible and adjust as we gain experience.

Because monetary policy typically acts with long lags on the economy, the choice of when and how to exit will depend on forecasts (especially of resource utilization, inflation, and inflation expectations.)

Should conventional monetary policy be used in the future to address developing financial imbalances as well as the traditional medium-term macroeconomic goals of full employment and price stability? The key question is whether we are likely to know enough about asset price misalignments and the likely effects of policy adjustments to give us the confidence to deliberately tack away for a time from exclusive pursuit of fostering aggregate price stability and high employment. Obviously preventing situations like the current one would be very beneficial. But against this important objective we need to balance the potential costs and uncertainties associated with using monetary policy for that purpose.

Monetary policy is a blunt instrument. Increases in interest rates damp activity across a wide variety of sectors, many of which may not be experiencing speculative activity. (In the current situation) tightening policy to head off a perceived threat of asset price misalignment could be expensive in terms of medium-term economic stability.

Furthermore, small policy adjustments may not be very effective in reining in speculative excesses…even substantial increases in interest rates (in 1999 and 2005) did not seem to have an effect on dot.com speculation or house price increases (respectively). Larger adjustments would incur greater incremental costs. Policy adjustments need to damp speculation; if higher rates just weaken output and inflation without damping speculation, the economy could be even more vulnerable when the speculative bubble bursts. We do not have good theories or empirical evidence to guide policymakers in their efforts to use short-term interest rates to limit financial speculation.

For all these reasons, my strong preference would be to use regulation and supervision to strengthen the financial system and lean against developing problems. Given our current state of knowledge, monetary policy would be used only if imbalances were building and regulatory policies were either unavailable or had been shown to be ineffective.