Mitchell's Musings 1-16-12: Tigers in Hindsight

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Two items got me thinking about foreseeing risk, and the capacity to underestimate risk. Once was listening to an old broadcast of Jean Shepherd, a New York City radio "raconteur" who told a story in 1976 about once working in a small TV station when his manager got a bright idea. The Clyde Beatty circus was in town. So why not do a live broadcast from *inside* Beatty's cage? Beatty was a famed lion tamer of that era. Shepherd obediently entered the cage with his microphone. After all, how dangerous could it be with some as knowledgeable as Beatty in charge? Years later he read in a book by Beatty that letting the TV guy into the cage was the riskiest, scariest thing he (Beatty) had ever done.

http://www.youtube.com/watch?v=0sV7gWad9jA

The other item I read was a *Los Angeles Times* article about newly-released 2006 "transcripts" of the Federal Reserve's Open Market Committee – the policymaking arm of the Fed.[1] I put the word "transcripts" in quotes because they are not literal word-for-word transcriptions. If you read them, you will find that everyone speaks perfectly grammatically, never uses verbal pauses such as "um" or "uh," and always frames complete sentences. The transcripts, in short, are cleaned up versions of what was said. They are routinely released six years after the events, so 2012 saw the release of the 2006 transcripts. The transcripts are very detailed in contrast to the much shorter official statements and minutes that are released soon after the meetings are held.

Years ago, I co-authored a journal article, based on such transcripts, illustrating how Fed policy makers remained hung up on notions of "wage-push" inflation – really an artifact of the period

[1] "The Federal Open Market Committee (FOMC) consists of twelve members--the seven members of the Board of Governors of the Federal Reserve System; the president of the Federal Reserve Bank of New York; and four of the remaining eleven Reserve Bank presidents, who serve one-year terms on a rotating basis. The rotating seats are filled from the following four groups of Banks, one Bank president from each group: Boston, Philadelphia, and Richmond; Cleveland and Chicago; Atlanta, St. Louis, and Dallas; and Minneapolis, Kansas City, and San Francisco. Nonvoting Reserve Bank presidents attend the meetings of the Committee, participate in the discussions, and contribute to the Committee's assessment of the economy and policy options. The FOMC holds eight regularly scheduled meetings per year. At these meetings, the Committee reviews economic and financial conditions, determines the appropriate stance of monetary policy, and assesses the risks to its long-run goals of price stability and sustainable economic growth." Source: http://www.federalreserve.gov/monetarypolicy/fomc.htm.

from the 1950s through the 1970s when unions were strong – long after unions had declined.[2] In any event, what the *LA Times* article essentially indicates is that Fed policy makers did not anticipate the magnitude of the financial crisis that was to come in 2008.[3] The article notes that the members sometimes made jokes. Put in other terms, and with the benefit of hindsight, the Fed policy makers were about to get into the circus cage without a full understanding of the risks involved.

I went online to the 2006 transcripts to see what was actually being said, at least in the cleaned-up version of the remarks. In the Appendix to this musing you can see selected quotes which I culled from the transcripts.[4] Judge for yourself whether my characterizations are accurate.

Meetings typically open with a presentation by Fed staff on the staff's forecast and on recent economic data. Then there is a back-and-forth interchange between members of the Open Market Committee and the staff. There are regional reports made by the presidents of the various Federal Reserve Banks that are rotated on and off the Committee. Members of the Fed's Board of Governors also present their views. Fed Chair Ben Bernanke tries to summarize the various views and gives his own interpretations of where the economy is headed. Finally, there is a good deal of discussion of what kind of statement the Committee should release about its current monetary policy. These sessions are lengthy meetings, sometimes intense, and the fact that an occasional "light-hearted joke" is made is hardly reprehensible. (The quote is from the *LA Times* article which seems to find fault with the humor.)

According to the *LA Times'* analysis, *"the transcripts… reveal in painfully embarrassing detail the high degree of overconfidence and lack of foresight just ahead of the real estate collapse and financial crisis."*

I disagree. First, the housing problem was widely discussed at the meetings, as is apparent from the Appendix quotes. Note that the official dating of the beginning of the Great Recession is December 2007, i.e., 1-2 years after the meetings of 2006 which were held beginning in January 2006 and ending in December of that year. We will have to wait another year to see

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[2] See D.J.B. Mitchell and C.L. Erickson, "Not yet dead at the fed: Unions, worker bargaining, and economy-wide wage determination," (2005). *Industrial Relations*. 44 (3), pp. 565-606. Available at: http://www.anderson.ucla.edu/documents/areas/fac/hrob/mitchell_notyet.pdf.

[3] Don Lee, "Federal Reserve missed signs as crisis loomed," *Los Angeles Times*, January 13, 2012. Available at http://www.latimes.com/news/custom/la-fi-fed-transcripts-20120113,0,3399929.story

[4] You can access the transcripts at http://www.federalreserve.gov/monetarypolicy/fomc_historical.htm.

what went on at the Fed in 2007. Anyone who has done economic forecasting will know that spotting turning points a year or two ahead is difficult. "Just ahead," is not how I would describe the elapsed time between the 2006 meetings and the Great Recession. Moreover, there *are* references in the transcripts to the uncertainties involved in interpreting the mixed events that were occurring in 2006. No one at the meetings says they are certain of their interpretations and prognostications.

Moreover, the issue facing the Fed was whether the housing bubble should be addressed directly, i.e., apart from the general state of the economy which is the usual Fed target. The prior experience a few years before with the dot-com episode suggested that financial bubble-bursts produced rather mild recessions. Members of the Committee did look to past histories with housing bubbles specifically, but they did not find from past evidence that more than a mild impact could be expected.

Since the downturn was 1-2 years away, what the Committee found was mixed data on economic performance which is typical when the economy nears a peak. The year 2006 featured an economy that by some measures was overheating and by other measures was softening. That mix might have heralded a recession, a growth pause, or maybe nothing at all. Regional conditions were varied.

It was thought that the channel through which a bursting of the housing bubble would affect the economy was directly through reduced employment in construction and housing-relating industries and indirectly through a wealth effect on consumers. Higher house prices made home owners feel wealthier and therefore stimulated consumption. A drop in house prices would presumably have the reverse effect. But at the time, house prices were leveling off, not consistently dropping. And standard forecasting models incorporated only limited wealth effects operating in a linear fashion. Forecasting models typically don't deal with abrupt, suddenly-off-the-cliff responses.

There was concern expressed about potential "non-linearities" that the standard models tend to miss. But the general view on the Committee was that absent a clear direction of the economy, the Fed should simply watch and wait. It could take action later as the situation clarified.

The fault was not really "a glaring absence of alarm" – the Fed was not out of line with most forecasters at the time – but a failure to detect the flaky mortgage securities and practices that escalated what might have been a mild recession into the Great Recession. Some mention of these flaky practices is made in the transcripts and - with hindsight - one can say that the Fed and other financial regulators should have had a greater grasp of the problem. But as is now apparent, the fractured regulatory system was inadequate and some of practices taking place were outside the traditional regulatory framework.

In short, the Fed climbed into the cage with financial lions and tigers because the dangers were not apparent. With hindsight, we can see the danger signs. But there were lots of folks (sometimes mentioned in the transcripts) - such as CEOs of major firms (outside the housing industry) - saying that as far as they could tell, the economy was moving along just fine despite the housing problem. To put it in a nasty fashion, why worry about the Big Cats in the cage when the Fat Cats ostensibly in charge of the business world seemed to have everything under control?

Anyway, as of 2006, consumers were buying. Business investment was going ahead. Indeed, some Committee members feared that the danger for the U.S. economy was really inflation, not recession. That view was old thinking, as it turned out.[5] Too bad that neither the Fed, nor the *LA Times* for that matter, could not foresee the future back in 2006.

For of all sad words of tongue or pen,
The saddest are these: "It might have been!"[6]

[5] I *was* sorry to see "wage-push" mentioned by Chair Bernanke a year after Erickson and I published our paper cited earlier. But, then again, he could not have foreseen the paper we published a year later on why even a low-unemployment labor market was unlikely to result in wage pressures. C.L. Erickson and D.J.B. Mitchell, "Monopsony as a metaphor for the emerging post-union labour market," *International Labour Review*, Vol. 146 (2007), No. 3–4, pp. 163-187. Available at http://www.anderson.ucla.edu/documents/areas/fac/hrob/mitchell_erickson_monopsony.pdf.

[6] From the poem, "Maud Muller" by John Greenleaf Whittier available at http://www.poetry-archive.com/w/maud_muller.html.

Appendix: Selective Quotes from Transcripts of Federal Reserve Open Market Committee Meetings

Meeting of January 31, 2006[7]

Page 18: The principal source of slowing in aggregate activity in our forecast continues to be the housing sector…

With respect to house prices, the recent data and anecdotes also have pointed to some weakening. As a result, our forecast of a sharp deceleration in home prices… seems less of a stretch than it did a while back…

As we have noted before, our house price forecast also has implications for consumer spending. Slower growth of house prices is the chief factor causing the wealth-to-income ratio … to drift down over the projection period…

Pages 27-28: …Our model has a relatively low marginal propensity to consume out of housing wealth, one that is similar to that out of overall household wealth. It's not difficult to imagine upping those effects. If one wants to assume that, instead of the three and a half cents on the dollar effect that we have incorporated in our model, the marginal propensity to consume was around five to seven cents on the dollar, those effects would obviously be increased. The second potential channel that our straightforward model simulations don't account for is that a lower path for housing prices could be accompanied by some hit to consumer sentiment. There would be an outsized effect on consumer spending if households really became more pessimistic given the downturn in what is an asset with a high profile in their portfolios…

So I think there are some pretty wide confidence intervals. … As I contemplate our outlook and the things that I worry about the most on the domestic side of the economy, I'd say the housing sector is clearly one of the biggest risks that you're currently confronting…

Comment: Generally in this meeting, there was agreement on uncertainties stemming from the housing market and that if there was to be trouble ahead, it would come from that market.

Meeting of March 26-27, 2006

Page 85: …An overall reflection on the economy: Consumer activity remains strong, but flattening of real estate equities will certainly restrain the wealth effect on consumption to some extent. In the so-called bubble markets, we are clearly seeing prices drop. In the mortgage business, the purchase mortgages are very active, but refinancings are almost entirely eliminated…

Page 92: …Not only are we faced with the forecaster's typical dilemma of trying to predict a trend break or a turning point, but we also have relatively few experiences in the United States over the last few decades of a downturn in the housing market…

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[7] Note: Page numbers cited are transcript pages, not pdf file pages.

Page 93: …Many of the discussions about the housing market suggest that there will be some sort of exogenous shock that somehow may send the housing market down, as opposed to the housing market's being part of the broader economy in which there are consumption demands for investment and in which houses are an asset as part of a portfolio. It is important to put housing in that context. In the other countries where we have seen downturns and GDP effects, it is hard to pull out what part was due to housing's lead as opposed to housing's just being one of the factors affected by a general economic downturn. So with those caveats in mind, and obviously we have to be careful about extrapolating from other countries' experiences, I do think we should be mindful of the potential risks that are there…

Chair Bernanke on page 95-97: …We have had, I think, a fairly upbeat group here the last couple of days, which is of course good, both in terms of views of economic activity and in terms of keeping inflation well controlled. The economy appears to be quite strong, but my sense is that most people feel that risks on that score are relatively balanced, which I take to imply that, after being strong in this quarter, growth will slow to something closer to a more-sustainable pace in the remainder of the year. Perhaps the leading source of uncertainty on the output side is the housing market, but I was reassured to hear that most participants think that a decline in housing will be cushioned by strong fundamentals in terms of income, jobs, and continuing low interest rates…

…Housing is the crucial issue. To get a soft landing, we need some cooling in housing. So far there is a good bit of evidence that there has been a peak, but we do not know a great deal more than that. So obviously we are going to have to watch carefully. The range of possible outcomes is quite wide…

Chair Bernanke on Page 137: …I see the economy as still being basically quite strong, and it needs to moderate to become consistent with its long-run potential. The vehicle by which that is going to happen is the slowing in the housing market. I think we ought to raise the rate today and not to signal an immediate end for several reasons. First, we could think of our policy in terms of the mortgage rate rather than the funds rate. The mortgage rate is currently about the same as it was when we began tightening in June 2004, and it is still providing support to the housing market. If we failed to act today or signaled that we are definitely done, we would create a rally in the long term bond market and in the mortgage market. We would create, I think, some risk of re-igniting what is currently a cooling market. I think that would be a mistake…

Meeting of May 10, 2006

Page 12: I have awoken with the fear that recent developments could provoke us into a familiar trap of overshooting on policy. If policy were to lean against strength in activity and inflation pressure that was largely seen in the rear-view mirror, the risk of tightening too much and for too long would be amplified. In that regard, the evidence has continued to accumulate that housing markets are softening, and last Friday's employment report at least hinted at some slowing in labor demand. Tightening significantly further when the economy already may have begun to decelerate risks an unwelcome cyclical downturn in the economy. Given our poor track record in predicting recessions, one should not take lightly the risk of overshooting the mark. I'm not embarrassed to admit that I've harbored both fears—that of falling *behind the curve and that of overshooting—often on the same day and sometimes even in the same conversation with my colleagues. [Laughter] But in the end, I have come to the view that, while you are almost certainly somewhat behind or somewhat ahead of the curve, there are some good reasons to think that you are not too far from the curve.*

Page 28: …Incoming data on the pace of economic activity surprised me slightly to the upside, although the indications are that housing is continuing to cool. Such an upside surprise is of concern, given that we are probably in the neighborhood of full employment and inflation is already on the high side of a range I consider consistent with price stability. I have also been slightly surprised, and unpleasantly so, by incoming data on core inflation…

Page 37: …In terms of the housing market, you may recall my last report from a large house builder who built 400,000 homes thus far. I've expanded that to another builder of similar size. The cancellation rate now, David, is up to 40 percent—a key indicator. However, it has shifted around the country, and… they report that you'd have to be a princess on a pea to feel any discomfort with the Texas housing market. It is booming, unlike the Florida market—which, as you know, is cascading…

Page 46-47: …Employment growth will support consumer spending even as house price appreciation slows. The rising gasoline prices will have a damping effect but probably not a dramatic one. There are no signs of a sharp retrenchment in housing. So far, the slowing has been orderly. With the economy expected to remain at full employment and with labor markets tight, we expect hourly compensation growth to accelerate over the forecast period, but not dramatically so…

Page 48: …In addition, foreclosures also point to some weakening in the housing market. I guess the most notable is a 31 percent increase in March over the previous month that pushed Colorado to the highest foreclosure rate in the nation—as reported anyway. One factor behind the increase is the unusually widespread use of interest-only mortgages in that state…

Page 49-50: …The CEO of one of the nation's largest home builders… explained that a number of factors, in his view, have come together to precipitate that slowing—overbuilding, higher mortgage rates, a retreat of housing speculators, earlier conversion of many rental apartments to for-sale units, and now the wait-and-see attitude among those who still expect to purchase at some point. He reinforced my sense that, while the cooling-off in housing is being felt to some extent in most markets, so far it is only the frothy coastal markets, like South Florida, that have seen a significant adjustment..

Page 53: I think that there are a few straws in the wind that suggest that some deceleration is in the offing, including the evolution of housing activity and the diminution of the positive wealth effect, at least from that source. I do not want to exaggerate that effect at this moment. It is based largely on what we are seeing in the most recent data, but the anecdotes, at least that I am getting, are consistent with that…

Page 63-65: …On the real side, one area that I think is critical is the housing market. As you all know, I have continued to worry about what is going on in housing and mortgages and have wanted to give you *another perspective on what we are observing. Most of you are well aware that we put out some supervisory guidance for comment awhile back on nontraditional mortgage loans, which include various forms of interest-only, adjustable-rate, negative-amortization mortgages. If you look at the 2005 earnings reports of the large mortgage banks and the large savings and loans that do mortgage lending, these institutions have a really striking amount of interest rate risk embedded in their negative amortization loans. As you know, most of the product is securitized and sold. So the relative share of these products originated in the last couple of years that are on the banks' books is small overall. But the numbers have gotten so bad that now the setters of accounting standards want banks to disclose how much interest income they are recognizing as income that they have not collected, through this negative amortization. In other words, they bill the customer for this interest, but instead of making the customer give them the cash every month, they just add the amount to the outstanding balance and it creates negative amortization. For some of these big organizations, the amount represents 5 or 10 percent of net income from last year. So the number is growing, and we are looking to make sure that banks are appropriately putting aside reserves for the portion that may not be collectible. In the past few weeks, I have become aware that the rising interest rates are creating more problems for customers in servicing debt. …Now, the mortgage industry, ever creative and ever worrying about the ability of homeowners to pay amid rising rates, has now decided to create negative-amortization, fixed-rate mortgages. What these mortgages do is say, "Just borrow for your house. You have a monthly payment, no amortization of principal, and you do not even have to pay the full fixed rate. We will just continue to add to your principal, and you pay what you can afford every month versus what you really owe us on the fixed rate every month." This process just continues, and one thing that bothers me for the long run is the extent to which housing could slow this year and slow the economy. I just wonder about the consumer's ability to absorb shocks… So the growing ingenuity in the mortgage sector is making me more nervous as we go forward in this cycle, rather than comforted that we have learned a lesson. Some of the models the banks are using clearly were built in times of falling interest rates and rising housing prices. It is not clear what may happen when either of those trends turns around…*

Chair Bernanke page 71-72: I think we are following the path laid out by the Greenbook toward greater moderation in the second half. The main difference is that, since our last meeting, the uncertainty around that prospective path has increased. Obviously, the key to this moderation is the housing market, and fundamental analysis would suggest that the combination of high prices and rising interest rates would make affordability a problem and would bring housing starts and housing prices down. So far we are seeing, at worst, an orderly decline in the housing market; but there is still, I think, a lot to be seen as to whether the housing market will decline slowly or more quickly. As I noted last time, some correction in this market is a healthy thing, and our goal should not be to try to prevent that correction but rather to ensure that the correction does not overly influence growth in the rest of the economy…

Page 83: …The housing falloff that we're beginning to see signs of could hit not just residential construction but also consumption harder than we expect, and rising energy costs could exact a greater tax on spending. But as I noted, we have yet to see much of that projected slowing in the incoming data. It's still a forecast…

Meeting of June 28-29, 2006

Page 12: …Widespread anecdotal reports suggest that the drop in demand is being driven partly by a withdrawal from the market by investors and purchasers of second homes. Data on mortgage originations by investors and those purchasing second homes, which begin on a monthly basis in mid-2003… are available only through March... The first thing to note is that these groups are a relatively small part of the overall market. Moreover, although the data are quite noisy, neither group, at least through March, was leaving the housing market in droves. Nevertheless, the recent spate of reports and a jump in the rate of contract cancellations for new homes, which homebuilders attribute largely to a retreat by investors, pose a downside risk to the housing outlook. Another risk to the forecast is the possibility of a pronounced deterioration in the financial conditions of some vulnerable households, which could cause them to retrench significantly on spending…

Page 37: …What we have done is to take down the rate of growth roughly ½ percentage point beginning in the third quarter and moving to the end of the projection period, in large part, I'd say, because of the disappointing developments in the housing sector but because of other things, such as weaker consumption news, as well. I would also say that we don't see this cumulating. We've weakened the forecast, but we don't see the economy falling apart. We continue to see an economy that, as I said, was in a transition to a rate of growth that will be below potential. We just marked it down further below potential than we had in the last Greenbook. But I don't think that there's a disconnect between what we've done and the news that we have received…

Page 44: …Of course, housing markets are weakening. At the last meeting we were more pessimistic than the Greenbook. This time, with its large revision, the Greenbook is slightly more pessimistic than we are. However, the overall negative tone of the Greenbook seems a bit puzzling to me given the current conditions that we were discussing earlier. After all, mortgage rates are not that high. The rate of house-price appreciation has not come down more than we expected. Still, current conditions are softening. A contact from a major national builder, Pulte Homes, told us that their new orders had dropped sharply and that the current high level of construction is being supported by working off backlogs. Accordingly, he expected a more marked slowdown in building in 2007…

Page 49: …The CEO of EDS, who has as his clients GM and Delphi, said, "You hear a lot about quarter-to-quarter slowdown. I'm not seeing it in the general economy." … I think all of us saw FedEx's numbers that were reported. I spoke at length with the CFO of UPS, who reports that sales were up 6 percent in the first quarter. As of last week they are forecasting closer to 5 percent for the second quarter. The CFO said that "there is no dramatic slowdown that we can observe." The chairman of an airline that moves 80 million passengers, who last time worried aloud about a slowdown that they were seeing in California, says that in terms of realistic bookings, across the nation it is strong without exception…

Page 52: …Activity related to residential real estate has softened, and I continue to hear from my business contacts that they are concerned that consumer spending will retrench in response to the softer *housing market and higher energy prices. But I do not get much indication that this concern is having a substantial effect on their business plans. Capital spending plans in particular seem little changed from the beginning of this year…*

Page 55: …Housing prices are not falling quite as much as the decline in sales and the rise in unsold inventories might suggest. We are getting reports that builders are now making concessions and providing upgrades, such as marble countertops and other extras, and in one case even throwing in a free Mini Cooper to sweeten the deal [laughter] rather than reducing prices. So real house prices may be declining more than the data suggest…

Page 73: …We had already anticipated the slowdown in residential investment that has now materialized; therefore, we didn't see that as a basis for revising down our forecast. We believe the changes in household wealth in general have less effect on consumption than the Board staff believes, and as a result we expect a more modest deceleration in growth. We expect stronger employment growth, too, and we have a stronger view of the rate of growth in private investment going forward. The world economy still looks pretty robust to us…

Page 81: …the bankers I talked with said that they aren't going to let the amount of loans that they extend drop as much as I think is in that forecast. So I really believe that the drop in housing is actually on net going to make liquidity available for other sectors rather than being a drain going forward and that will also get the growth rate more positive than the current Greenbook forecasts…

Chair Bernanke Pages 92-93: …The housing construction industry is large, bigger than historically normal, and a controlled decline in housing obviously is helpful to us at this stage in bringing us to a soft landing in the economy. But as people have pointed out, the cooling is an asset-price correction. Like any other asset-price correction, it's very hard to forecast, and consequently it is an important risk and one that should lead us to be cautious in our policy decisions… Another potential nonlinearity is in financial markets, as we've seen recently. We don't have a good understanding of how changes in interest rates are affecting risk reduction and positions in financial markets right now… So let me just conclude by reiterating that we find ourselves in an extraordinarily complicated situation because we have these different themes—the cyclical turning point, the supply shock, and the housing cycle. The implication is that, whatever we do, we're going to have to be very deliberate and careful; but I think we cannot ignore the inflation side of this equation…

Meeting of August 8, 2006

Pages 21-22: …my contacts are unable to point to explicit examples, apart from housing, showing that such a marked deceleration currently is in train. Indeed, many of the reports that we get are quite upbeat. For instance, one of our national temporary help contacts said his indicators were pointing to a bounce back from a weak second quarter, and he was seeing strong conversions from temporary to permanent status…

Page 25: A large homebuilder in our District summarized the views of many of our contacts when he recently commented that "the housing market has not yet popped, but a hissing sound is now clearly audible." [Laughter] He pointed to rapidly rising cancellations as a particularly ominous sign. I will be watching the incoming data closely for signs as to whether the housing slowdown remains orderly as hoped or takes a steeper downward slide, posing a greater risk to the economy. My concerns about inflation have also been somewhat heightened by the recent data or, more precisely, revisions to past data. Core measures of inflation continue to be well above my comfort zone…

Page 28: …I regularly talk to CEOs of two of the five big builders. They like using analogies. In the words of the second largest builder in the country, "The pig is still in the python." That is, he expects the decline from peak to trough in home sales to exceed that forecast in the Greenbook. I think we had 17½ percent; he is talking about a correction of 25 percent…

Page 40: …Some of the veteran Realtors in my District with whom I have been talking are saying that this housing market is the worst that they can recall. Comments like these, although they are selected, do suggest some more uncertain prospects for the housing sector…

Page 53: …The outlook, therefore, is not particularly encouraging. I think consumption will show some further slowing going forward, especially as we see further shocks in the economy related to energy. Some of the wealth effects related to the housing industry will also affect consumption going forward…

Page 56: …the economy is going through a set of extremely complicated transitions, including a large, adverse, sustained relative price shock of uncertain duration and a substantial adjustment in asset prices that is now concentrated in housing. Our capacity to anticipate the evolution of these forces and to assess their effect on growth and inflation is, of course, very limited. The forces that now appear to be working on the economy still present the unpleasant combination of upside risk to inflation and downside risk to growth; but for the moment we believe that the former, the possibility that our forecast is too optimistic on inflation, remains the predominant risk…

Page 63: …When the housing bubble (of the 1980s) burst, all of a sudden we had unsold housing units. They had to be sold before builders could start building on the developments that had already been laid out, and it took us several years to work through that. This time we don't have the unfinished inventory of developments that we had in the '80s. So I think that the cycle is likely to be much shorter than it was then and that it will put some firmness in that market. At the same time, this is the sector, aside from energy and commodities, that had a very rapid rise in prices, and it's good that we're seeing some correction in those prices right now…

Chair Bernanke Pages 74-75: …(An) element of uncertainty as we look into the forecast is what I would call parameter risk, which is that the staff assumes that the effect of housing wealth on consumption spending is, through the standard wealth effect, about four cents on the dollar. I happen to think that is a good estimate. I think the econometric calculations are persuasive. Nevertheless, there is the possibility that the effect is somewhat greater, perhaps operating through liquidity effects. There may be buffer stock effects. If people see their equity falling, they may become more cautious about spending *in order to avoid eliminating their buffer of reserves. Thus there is the possibility that housing will have a stronger effect on consumption than we now expect…*

Meeting of September 20, 2006

Page 12: …All in all, however, the incoming data over the past week left our forecast pretty much unscathed. I am relieved about that, because, if I do say so myself, it's a beautifully constructed forecast. [Laughter] After all, with no further tightening of monetary policy, the economy eases into an extended period of slightly below-trend growth led by a retrenchment in the housing sector. That slower growth of activity opens a small output gap by the middle of next year but does not trigger a more precipitous cyclical contraction. Then, as the downturn in housing wanes and the associated multiplier and accelerator effects largely play out, the growth of real GDP picks back up toward potential in 2008…

Page 14: Still, we are not anticipating the weakening in activity to cumulate into outright recession. In our forecast, the fact that the implications of the housing downturn for the broader economy are relatively limited rests importantly on two suppositions, both of which are open to question. The first is that the slump in housing produces a sharp slowdown in house prices but not a large nationwide decline in those prices. In the past, housing prices have been relatively sticky on the downside, with homeowners resisting price cuts and keeping their homes on the market longer. Our forecast envisions something similar occurring in this episode. The second assumption is that housing wealth affects consumer spending like other forms of wealth and that there are no other channels of influence of house prices and housing finance on consumption. For example, we have not incorporated any significant negative effects on consumer sentiment that might accompany a rapid deceleration of house prices. We have also made no special allowance for the decline in mortgage equity withdrawal to restrain consumption because we find the empirical evidence of such a connection to be fragile…

Page 35: …Labor markets are in good shape, so growth in jobs and wages should continue to support household spending. We are getting a welcome boost to real incomes from lower energy prices; and given the increase in business optimism that I noted earlier, I am less concerned that cautious animal spirits will cause businesses to pull back on spending. Housing remains the major downside risk, but I get the impression that thus far the weakness in residential investment is not spilling over to the other sectors of the economy...

Page 38: …As one CEO told me, the only subject that has been more analyzed than the housing situation is the birth of Brad Pitt's baby. [Laughter] According to this view, if we have not discounted what has been happening in the housing market, we have been living on Mars, and I think that is an important point to take into account… All the retailers I talked to—from 7-Eleven to JCPenney to Costco to Home Depot—report that they feel that they have bottomed out and that things are picking up, with one exception. That exception is Wal-Mart, and I think some of that situation relates to the internal dynamics of the way Wal-Mart is positioning itself in the market…

Page 39: …The CEO of EDS summarized the growth side of the economy much as did the majority of the CEOs I spoke to for this go-round when he said, "We were all expecting things to be worse. They haven't *gotten worse."   They were all expecting things to get tougher, and they haven't gotten tougher, except for one area—the procurement of labor. There is a shortage of bank tellers and mechanics. By the way, a wrench bender, as they call the job in California now—a simple mechanic without the completion of a high-school diploma—gets $100,000 a year. There is a shortage of truck drivers, of oil field hands, of chemical engineers, and even of unskilled workers such as retail store cashiers in Houston; and for the first time I have heard from the major hoteliers of a shortage of hotel maids. To illustrate the point, one CEO mentioned that, whereas his company regularly used to get 300 applications for 100 truck driver jobs, they now get 3. So the bottom line is that our contacts are feeling more optimistic than the economists' forecasts. They are worried about some constraints on domestic labor. As one contact said, the economy feels like a full employment economy…"*

Page 41: …In terms of economic activity, the recent news has been uniformly negative, resulting in a significant downward revision to growth in the Greenbook. Indeed, compared with the outlook of other forecasters, the Greenbook's projection of real GDP growth for the second half of this year is quite pessimistic; it would now rank in the lower 5 percent tail of the distribution of individual Blue Chip forecasters. I think this pessimism is not completely unfounded, however, largely because of my worries about the housing sector. The speed of the falloff in housing activity and the deceleration in house prices continue to surprise us. In the view of our contacts, the data lag reality, and it seems a good bet that things will get worse before they get better..

Page 47: …I did talk to Nick Retsinas at the Joint Center for Housing Studies, which Harvard runs, and he was not particularly negative. He felt that a correction is occurring but thought that it would be short-lived. Now, he did say that they were going to come out with some revisions and that he was still working on them, so his outlook may get more negative. But I am going to try to keep tabs on where they see things because they do stay in touch with all the large builders across the country. Again, the knock-on effects of lower residential construction may not be all that great…

Page 53: …On the negative side, housing has weakened more sharply than many expected, and auto production seems to be turning down for the rest of the year. On the positive side, as has already been mentioned by a number of others, business investment and corporate profits remain firm. Employment continues to rise at a moderate pace. The revised wage and salary data are now more consistent with the strength in consumer spending that we've seen, and continued growth in income and perhaps lower gas prices will help offset the possible negative effect that we may see from a deceleration in housing prices. On balance, I am somewhat more optimistic than the Greenbook about the growth side of the economy…

Page 60: …Apparently people are not leaving much to chance. I heard a report yesterday morning that sales at religious stores for statues of St. Joseph have been soaring. [Laughter] It seems as though people who are trying to sell their homes are buying statues of St. Joseph because he's the patron saint of real estate, and they're burying him next to the "For Sale" sign. Unfortunately, there is no patron saint for central bankers. [Laughter]…

Page 66: …I say that even though I can readily imagine that the decline in housing activity turns out to be both more protracted and deeper than you forecast it to be. By the way, as a footnote, if I did the numbers right, back in 1965 and 1966, we did get a decline in aggregate housing starts of better than 20 percent without a recession, although 1966 was considered a mini-recession, or a pause, or something—I've forgotten what the exact term was... Growth recession… Yes, something like growth recession. But the bottom line here is that it hasn't been a good idea to underestimate or underrate the performance of the U.S. economy since late 1982…

Page 74-75: …I've been worried about the mortgage market and housing for quite a while. In an endeavor to find something good to say, I have noticed that, in the past couple of months, the Mortgage Bankers Association index of new loan applications for purchase mortgages looks as though it's starting to level off. Very often that could be a leading indicator, so that could be a positive sign. However, as some of you have remarked, there's a lot of speculation in the housing markets that has to unwind. All the folks who bought housing for investment have to do something as they see housing prices slowing and the financing costs to carry their investments going up. How that unwinding will occur, given the substantial size of the speculative positions in some markets, is something that will need very close monitoring. I know that our supervisory staff is focusing on that, too. People are focusing on the fact that delinquency rates in mortgages still look good. However, we've seen a very rapid increase in debt service ratios since 2004. I'm concerned, again, with the amount of adjustable-rate mortgages out there that will re-price in the months ahead. If, as we think, some of these loans, particularly subprime loans, were made mainly on the collateral value of the house and not on the affordability of the mortgage, we could see more distress in the borrowers' markets coming forward. If that's the case, it could have spillover effects on consumer spending more broadly…

Chair Bernanke page 86: …The sense is that, on the real side, there's a two-tier economy. There's the housing sector and maybe autos, and there's everything else. On housing, there's agreement that a significant correction is occurring, but the views of the risks vary among participants. In particular, some feel that this still could be a quite deep correction, and others say that the fundamentals, such as incomes, interest rates, and so on, will ultimately support housing. With respect to the rest of the real economy, there were some mixed reports; but on the whole, people characterized it as a full employment economy….

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Page 9: …Although it is far too early to conclude that these indicators are pointing to stabilization in housing markets, they provide at least some encouragement to the view that the bottom may now be closer than the top…

Page 16: Our slowdown in the growth rate of house prices, to roughly 1½ to 1¾ percentage points over the next two years, doesn't make a big dent—if you remember from the briefing that we did one and a half years ago—in the price-to-rent ratio, which we plotted there and showed that that had increased very significantly. So our best guess is that, as in the past, those nominal prices will flatten out rather *than actually decline. But the run-up was so large that we couldn't rule out this time around that the adjustment of house prices could be more significant and more rapid than in the past. But I don't know of any reliable empirical model or evidence…*

Page 23: …Except for housing and autos, activity remains on a solid footing, and most of our contacts are relatively optimistic about the outlook. For instance, the two large temp firms we talk to regularly both reported that, although billable hours were roughly flat, their clients were upbeat about the outlook. Furthermore, demand for workers in light industry—the segment most closely tied to the national business cycle—continued to grow. In terms of wages, both temp firms noted that compensation increases have been running much higher than last year at this time…

Page 32: …If the slowdown in housing continues to be an orderly one, without large spillovers as has been frequently mentioned, I would not characterize that correction as unwelcome. Housing activity has been at an unsustainably high pace in recent years. Of course, at this point we cannot rule out the possibility that the correction in housing from the unsustainably high pace of activity that we've seen over the past few years will derail the expansion. But so far, we have not seen spillovers of housing into other sectors. In particular, we have not seen any retrenchment by the consumer for the most part…

Page 40: …we have continued reports of shortages of skilled and unskilled labor, from chemical engineers to school teachers to bank tellers and even to hotel housekeeping staff. So we have a significant problem in terms of labor shortages—skilled, semiskilled, and now, increasingly, unskilled…

Page 41: …From the 27 or 28 CEOs and CFOs to whom I spoke in preparing for this meeting, as I always do, I do hear reports of a slowdown. I talked to two of the Big Five house builders this time. They are cutting back significantly. Let me give you some numbers. For example, Centex owns 109,000 lots outright and has 54,000 lots under hard option and 80,000 lots under soft option, as they call it. They've canceled 25 percent of their hard options. That is $85 million worth of properties. Hovnanian is walking away from $100 million worth of hard option properties. The effort there is to cut back so that what was a two-month leading supply has now become a three month leading supply. You can see how the dynamics are beginning to work. They're moving on price, but they are also trying to shut down their inventory and are taking very quick action. That is a depressing factor…

Page 45: …Retail (real estate) brokerages are starting to contract in terms of both number of offices and number of brokers. It was reported that so-called investors have disappeared entirely from many markets and that inventories of unsold homes are rising and the extent of the increase may be understated by the published data. There was little expectation among this group of improvement in housing in the next several months at least, and I would say not a whole heck of a lot of confidence that there was improvement in store even out beyond that, maybe as you get later into '07. In contrast, and on a somewhat more positive note, the people who are also in nonresidential construction—in particular, office and retail development—thought that the outlook was promising, indeed positive, and are seeing a lot of activity in that business…

Pages 47-48: We've also spent a lot of time talking recently with contacts in the housing industry. The word that we're getting is that some of the smaller and even regional builders have perhaps six months, and if they don't see a pickup, they're going to be filing for bankruptcy. They are very, very hard pressed. A lot of them overbuilt. They are stuck with a big inventory. They have the carrying costs of that inventory, and laying off workers doesn't solve that problem. They may bring the new construction down very low, but it doesn't solve the problem of what to do with the unsold inventory. So without a pickup in housing, I think we can anticipate some bankruptcy filings in that area…

Page 50: …Of course, housing is a relatively small sector of the economy, and its decline should be self-correcting. So the bigger danger is that weakness in house prices could spread to overall consumption through wealth effects. This development would deepen and extend economic weakness, potentially touching off a nonlinear type of downward dynamic that could trigger a recession. But so far at least, there are no signs of such spillovers. Consumption spending seems on track for healthy growth…

Page 70: …I think that the housing market, although it has retrenched a lot, which I actually consider a rebalancing of the economy, does not look as though it's going to collapse in a nonlinear way. For example, we see that the market has some expectations along those lines—for example, the stock prices of builders have actually come back a substantial amount. We also see that consumers seem to be holding up very well. The real danger that we were worried about in terms of a housing market retrenchment is that it would spill over in a nonlinear way to the household sector. We don't see any evidence of that either. Consumer confidence is staying strong. The stock market is up—again, an indication that these spillover effects are not occurring over and above those that we think would be normal in terms of wealth effects and so forth…

*Chair Bernanke pages 76-77: …although we have not yet seen much **wage-push inflation**, clearly the risk is there. Anecdotally, and to some extent statistically, we have very tight labor markets. It is surprising how little wage push there has been so far, and if labor markets continue to stay at this level of tightness, then one would expect that you would get an inflation effect that would be uncomfortably persistent. That is a real concern, which I share with everyone around the table. If the Phillips curve language doesn't appeal to you, another way of thinking about it is that, if the labor market stays this tight, which means that growth is at potential or better, then the real interest rate that is consistent with that growth rate needs to be higher than it is now. I agree with that point as well. So my bottom line is that I do agree that inflation is the greater risk, certainly…*

Meeting of December 12, 2006

Page 12: …We see forces at work that, by the middle of next year, should result in a gradual reacceleration of activity back to a pace in line with the growth of the economy's potential. Importantly, we are expecting some lessening of the contraction in residential investment. Housing starts have now fallen by enough that, if home sales stabilize at something around their recent pace—and I recognize that this is a big if—homebuilders will be able to make substantial headway in clearing the backlog of *unsold homes. As they do, we expect construction activity to level off in the second half of 2007 and then to stage a mild upturn in 2008...*

Page 23: …The last time we met I described the situation as a bimodal economy with strength in most sectors and weakness limited to just two sectors, housing and domestic auto production. This description by and large remains apt. The correction in the housing sector has continued, even sharpening somewhat compared with our expectations. Still, there are some encouraging signs that the demand for housing may be stabilizing, probably assisted by recent declines in mortgage rates. After a precipitous fall, home sales appear to have leveled off…

Page 29: …Business confidence appears to be holding up fairly well. Indeed, I'm impressed by the lack of pessimism among my contacts, even those who are experiencing flattening sales or sluggish sales. Finally, real interest rates are low across the maturity spectrum, and risk spreads remain narrow…

Page 32: …I speak to two of the five largest builders, and I've added a third to that sample. …They are reporting what they call a sense of a turn, but this may be their perpetual optimism. But cancellation rates have improved from 40 percent to 32 percent according to the reports, and actually in November there was a gross pickup in unit sales of about 3 percent according to these reports. So they are feeling that some pent-up demand is building. The interesting thing about that industry in particular is that they are all walking away from their options. One of the largest said that they expect to end up with only 20 percent of their land options, and yet land prices have not yet fallen. So I think that's the next shoe that will likely drop…

Page 34: …Moderate employment growth continues. Layoffs are down, and electronic job postings, as opposed to newspaper want ads, are rising. Retailers are cautious about the fallout from the housing market, but except for those in the hardware or furniture businesses, sales were reportedly buoyed by the drop in gasoline prices…

Page 37-38: … Nationally, there are some indicators suggesting that housing demand has stabilized at a low level. Sales of new homes have been fluctuating around an annual rate of 1 million since July, and purchase mortgage applications have been fairly flat since then as well. But the national data also show a sizable overhang of housing inventory that will continue to depress new building activity going forward. If—and… I recognize this is a big "if"—the demand for housing holds up at current levels—and favorable fundamentals such as moderate mortgage rates and continued real income gains should help—then the adjustment process is simply a matter of working inventories down. This is consistent with the Greenbook's estimate that residential investment will no longer subtract from real GDP growth after the first half of next year…

Page 38: … one way the housing downturn could spread to the remainder of the economy is through a wealth effect. So far I'm not persuaded by this gloomy view, and I think there are good reasons to doubt it. Household net worth looks pretty strong, and equities continue to advance. The other leading candidate for a spillover channel is the labor market, but so far the weakness in construction and real-

estate-related employment has not been large enough to offset the broader strength in employment. I remain skeptical of a housing-induced step-down in consumption growth…

Page 40: …I am concerned that we don't yet have a good handle on where house prices are headed and how the uncertainties surrounding house prices might affect consumer spending. Second, the support to consumption provided by cash-out refinancing is not likely to be available going forward to the same degree that we've had during the past several years. Finally, the financial condition of some households has become pretty fragile, and we all know that rates on adjustable mortgages, including some subprime mortgage loans, continue to reset at higher rates. The adjustable rate mortgages are already causing some well publicized problems for some households…

Pages 63-64: …Delinquency rates are really, really low by historical standards. The one sector that has had a jump in delinquencies is subprime ARMs, and clearly the jump is related to rates that have already reset. We've got more to come. Even though these have jumped, they're still not at alarming levels. But it's something that I think the banks are watching very, very carefully. One thing I'm hearing more from some folks who have been investing in mortgage backed securities and maybe in some CDOs (collateralized debt obligations), where they've been tranched into riskier positions through economic leverage, is the realization that a lot of the private mortgages that have been securitized during the past few years really do have much more risk than the investors have been focusing on. I'm hearing this from folks who understand that the quality of what goes into those pools varies tremendously when you don't have the Fannie Mae and Freddie Mac framework for the underwriting. When a mortgage is originated through a bank, we do a lot through safety and soundness supervision to make sure, if a bank is buying loans from brokers, that the loans are underwritten in a sound manner and are therefore affordable to the borrower when they're undertaken. We're seeing that some of the private-label mortgage-backed securities are having very high early default rates or delinquencies in the mortgages, which usually means that the originator has to buy them back out of the pools. There isn't a whole lot of transparency in the disclosures around some of these bonds, and some of the brokers are underwriting products that have very high early default rates, which is something that investors are starting to focus on. As more products are generated outside the banking sector, they get funneled to pools through broker-dealers as opposed to the banks. I think that we're missing a level of due diligence regarding brokers, who may not be doing a good job. As you all know, the fraud rate on mortgages has tripled in the past two years. So I think we could see noise in some of the mortgage-backed private deals and some of the riskier CDO economic leverage positions…

Chair Bernanke page 79-83: …Looking forward, again to compliment the staff, I think most people around the table accepted the general contour of the Greenbook forecast—that is, moderate growth perhaps below potential for the next few quarters but returning to potential growth later next year, with risks to the upside as well as to the downside. So far there is little evidence of spillover into consumption in particular, although obviously we have to keep an eye on that. There are a number of strong underlying conditions, including supportive financial conditions, strong profits, and a strong international economy, which are providing a cushion to the economy… I think that a soft landing with growth a bit below potential in the short run looks like the most likely scenario. I expect the unemployment rate to *increase gradually but income growth and other factors to be sufficient to keep consumption above 2 percent, which is essentially what we need to keep the economy growing. Again, I see the risks going in both directions. Let me add a couple of extra comments about risks in the housing market. I talked last time about the dynamics of starts. Even if final demand stabilizes, starts may take a time to fully work out the inventories. A couple of other factors are like that, which I just would like to bring to your attention. One has to do with the very strong presumption we seem to have now that demand for housing has stabilized. That may be the case, but I would point out that we have seen a very sharp decline in mortgage rates. People may have a sort of mean-reverting model of mortgage rates in their minds. It could be they are looking at this as an opportunity to jump in and buy while the financial conditions are favorable. So even if rates stay low, we face some risk of a decline in demand. The counter argument to that, which I should bring up, is that if people thought that prices were going to fall much more, then they would be very reluctant to buy. That's evidence for stabilization of demand. Another point to make about housing is that, even when starts stabilize, there are going to be ongoing effects on GDP and employment. On the GDP side, it takes about six months on average to complete residential structures. Therefore, even when starts stabilize, we're going to continue to see declines in the contribution of residential construction to GDP… There will be lagged employment effects from the housing sector and presumably from the associated manufacturing sectors, like appliances and furniture, which also tend to lag. So there will be some employment drag coming forward, and I think it's reasonable to think that unemployment rates will start to rise. But, again, this is about 15 percent of the economy as compared with 85 percent of the economy… I think that we have some reason to think that inflation will slow, but I don't disagree with the very wide sentiment I hear around the table that the slowing is far from certain and that the risks are still to the upside on inflation…*