THE BROOKINGS INSTITUTION

RESTRUCTURING THE U.S. RESIDENTIAL MORTGAGE MARKET: NEW RESEARCH FROM HOUSING EXPERTS AND PERSPECTIVE FROM ALAN GREENSPAN

(MR. GREENSPAN'S REMARKS)

Washington, D.C.
Friday, February 11, 2011

P R O C E E D I N G S

MR. BAILY: It is with great pleasure that I introduce Alan Greenspan. As you know, Alan became Chairman of the Board of Governors of the Federal Reserve in 1987 and served in that position to 2006 and we had an extraordinary amount of stable, relatively inflation-free growth during that period. He is now at Greenspan & Associates and I can attest that he's still extremely active in economics and economic research. He gave a paper at a Brookings panel recently. I have the privilege of talking to him regularly and hearing what he's working on so that he's still very much still part of the world of economics and of macro. Alan, welcome.

MR. GREENSPAN: Thank you very much, Martin. You didn't say that I've been around here for 40 years being one of the very early members of the Brookings Panel on Economic Activity.

MR. BAILY: I apologize for not saying that.

MR. GREENSPAN: All I can tell you is that if you go into one session today versus what the sessions were 40 years ago you realize how little we've --

MR. BAILY: You haven't been coming often enough. That's the problem.

MR. GREENSPAN: Right. While the rest of the seminar is devoted to the structure of mortgage finance, I thought it might be useful to spend a few minutes on what mortgage finance is ultimately all about, homebuilding.

The last 20 years have exhibited the longest uninterrupted rise in single-family housing starts and by far the sharpest collapse in the postwar years. Starts in recent months have languished at a little more than at a 400,000 annual rate, less than a fourth of where they stood at the top of the boom in early 2006. Nothing resembling this collapse has occurred in the six decades following the War. To find such data we have to back to the 1930s when single-family housing starts between 1925 and 1933 fell by almost 90 percent. Housing starts did not regain their 1925 level over the next 8 years prior to the War. Starts in fact did not recover to their 1925 levels until 1947. I do not expect a similar hiatus this time, but the trudge uphill is not going to be easy.

During the recent boom years, the demand for single-family units and their financing was predominately demand for owner occupancy. The level of additions to ownership was significantly driven by the rate at which households chose to own rather than rent and could afford to do so. The ownership rate in turn was fostered by rising home prices and the implementation of affordable housing goals. After a protracted period of stability, the ownership rate at 64 percent in 1994 began its historic rise to more than 69 percent a decade later producing from 2001 to 2004 an average annual increase in new single-family owner-occupied dwelling units of approximately 1.2 million absorbing all and more of the gain in household formation. In addition to the demand for owner occupancy was the significant demand for single-family residence by investors. According to Home Mortgage Disclosure Act data, the share of total investment and second-home purchases rose from 9 percent of home originations in 2001 to 14 percent in 2004. That combination coupled with a 200,000 annual rate of demolitions and some loss of single-family units to multiunit conversions supported over those years an average annual level of single-family unit completions and mobile-home placements amount to 1.5 million.

The demand for homeownership peaked at the end of 2004 as the limited backlog and higher prices began to take their toll. Ownership rates turned downward in the fourth quarter of 2006, ultimately incidentally falling below 76 percent. Single-family housing starts peaked in early 2006, but it took another 7 months for starts to turn to completions and not before adding an unstoppable and unprecedented 430,000 units to the inventory of single-family homes for sale over the four quarters of 2006 on top of 170,000 added during 2005.

By the end of 2006, the level of vacant single-family homes for sale had reached 1.8 million, a staggeringly historic overhang of more than 700,000, the equivalent of 6 months of sales. For years prior to the surge, completed homes available for sale had been relatively stable at a little more than a million units. Following the topping-out of demand late in 2006, home prices proceeded to fall for 3 years in a largely futile endeavor to uncover enough demand to absorb inventory excess. But homeownership by then no longer held the seemingly irresistible profit-making attractions of earlier years.

Homebuilders and other owners of newly constructed but vacant homes have been able through price discounting to fully liquidate their share of the overall inventory excess, about 200,000 of the more than 700,000 for sale excess. The remaining vacant homes offered for sale by investors, the bulk of the vacant market, were still hovering around 1.5 million, less than 6 percent below their all-time peak reached at the end of 2007. The level of home completions declined by more than two-thirds, but demand fell almost as much placing new supply below only modestly below demand.

Even at current depressed levels of new single-family construction, the inventory overhang cannot be credibly absorbed quickly. A stabilization of the homeownership rate would help in the sense that a fall ownership rate severely undercuts single-family unit demand. The ownership rate moving from negative to zero is in that sense I guess a positive. Nonetheless, market pressure could keep completions below demand for much of this year or longer as excess inventories are gradually brought under control. New demand creation must come from either an increase in the rate of household formation or an increase in the share going toward owner occupancy. Temporary tax credits rarely do either. It is thus no surprise that the recent first-time homebuyer tax credit produced little if any permanently higher demand. Certainly the currently more than 2 million single-family units in foreclosure has not helped Recent history suggests that approximately two-fifths of the surge in foreclosed properties on completion of the foreclosure process will be sold possibly into a still-troubled market. That would amount to an additional several-hundred-thousand overhang bringing the total excess to more than a million units. Home prices after falling almost 30 percent from their late 2000 peak stabilized by most measures between early 2009 and the spring of 2010. By the summer of last year, however, they began to soften again largely as a consequence of the pick-up in distressed foreclosure sales especially in December.

There was, however, some evidence of price stabilization at the end of 2010. Seasonally adjusted CoreLogic prices excluding stressed sales rose as the median price of newly built homes. Stabilization is important not only to the housing market but economic recovery as a whole since approximately 8 million homes were financed with conventional conforming mortgages during 2005 and 2006. Most of their original 20 percent and more original down payment plus recent amortization of that debt has been eaten into by the 25-percent decline since origination. Another 5- to 10-percent decline in home prices that many are forecasting would place a significant part of the 8 million homes underwater. To be sure, the propensity to default on underwater conventional conforming mortgage debt has been much less than for the more-vulnerable subprime and Alt-A home mortgages financed homes. Nonetheless, a price weakening itself could set in motion the contagion for further a further decline. However, with the rest of the economy currently recovering rather impressively, I am hopeful such an outcome can be avoided, but it would be unwise to fully rule it out.

As a consequence of the near-30-percent decline in home prices, equity in homes by the end of the third quarter of last year had retraced all of the $7 trillion rise between 2000 and 2006, but its composition had changed. Currently it is highly concentrated. Subprime and Alt-A financed homes are net underwater. There is some net equity in prime jumbos and surprisingly in the niche market of homes financed only with home-equity loans. Nationwide, well over half of home equity is currently in homes free and clear of debt. Conventional conforming financed homes are running a distant second. Prior to the crash in 2006, they had similar shares of net equity, but that was a time when virtually all homeowners had positive net equity. With home prices after that crash landing having flattened out over the past year, the number of homes underway has stopped rising. The number of homes in foreclosure has also stabilized at approximately 2.3 million seasonally adjusted at least for now, but they presumably would move higher should home prices slide again. The rapidity of the housing recovery when it gets underway is going to depend in large part as it has in the past on trends in what we used to label equity extraction. Equity extraction, the raising of cash by borrowing against the market value of equity in homes, has faded as a key positive determinant in economic activity, but it remains important to the housing and mortgage markets and it will surely reemerge as a factor driving household saving rate and personal consumption expenditures in the future.

Today equity extraction is negative as debt write-offs and new owners add equity to the nation's owned homes rather than extracting it. Despite flat home prices, equity has risen by a half-a-trillion dollars since March 2009. The overall stock of home mortgage debt is in a constant state of turnover and revaluation owing largely to changes in home prices and/of the degree of refinancing of the debt. But to understand the equity-extraction process better, we can usefully separate quarterly debt change into two components. One, that part of the increase or decrease that is solely the difference between mortgage originations on newly built homes and the scheduled amortization of debt that exists at the beginning of each quarter. In short, the amount of debt accumulation that occurs solely from the financing of newly built home; and, two, the remainder of debt change that holds wholly to actions that in total we measure as equity extraction. Equity extraction is capable of being fully accounted for in three buckets. First, debt changes owing to the sale, that is, turnover, of existing homes. The buyer of an existing home will almost always add more debt on that home than the seller will repay as part of the transaction. Secondly, cash-out refinancing, the difference between the balance on a refinanced mortgage less the mortgage balance being refinanced. And finally, three, unscheduled repayment of debt unrelated to a property transfer or a refinancing including especially delinquent scheduled amortization that may or may not more than offset burgeoning write-downs.

In years past Jim Kennedy at the Federal Reserve and I went through a set of detailed calculations to separately estimate each of these three components, but equity extraction in total can be approximated more expeditiously from a simple regression in which equity extraction per capita is regressed against the refinanced share of total home mortgage originations and a cumulative moving 4-year change in home price. I must say that the latter is by far the most potent part determining the issue of equity extraction. The results over the past 15 years are statistically highly significant. Moreover, the regression accurately traced equity extraction in the boom years as well as at small negative during the past year. What the price variable suggests is that it takes 4 years of cumulative capital gains on homes on average before homeowners endeavor to extract equity mainly through sale of a home or cash-out refinancing. The regression coefficients can be employed along with the calculated amortization rate and the value of home originations estimated as the product of the number of 1-4 family completions and the average price of sales of newly constructed homes. These inputs estimate the change and hence the level of 1-4 family regular mortgages. I might say regular mortgages are the usual numbers you look at ex construction loans and equity lines of credit. This simple model suggests that home prices will have to rise by 10 percent or more before signs of a full-fledged recovery in housing and the mortgage finance that goes with it becomes unambiguous. Thank you very much and I'm open to your questions.

MR. BAILY: Excellent. Thank you. We have some microphones so let's get some questions. Somebody needs to get started. Can you identify yourself?

MR. KING: I'm Arnold King. Mr. Greenspan, how are you doing? My question is about the balance sheets. How did they play a role in reconstructing the U.S. market to see if the balance sheet had caused problems the housing crisis?

MR. GREENSPAN: I don't quite get the question. Which balance sheet are you referring to?

MR. KING: How did balance sheets play a role in --?

MR. BAILY: Company balance sheets or household balance sheets?

MR. KING: Household balance sheets.

MR. GREENSPAN: Very much so. Indeed, another way of looking at the equity-extraction issue to recognize that that is the foremost important determinant of what the asset side of the equities are in the household balance sheet. So what we were beginning to see all through the period of the boom was a very dramatic rise in the market value of real estate matched only in part by a rise in the liabilities and the effect was to very significantly augment the equity that the personal sector meaning households or nonprofit organizations and in some calculations noncorporate business, there was this big surge going up on the asset side and an almost comparable surge on the liability side and it went into full reverse on the downside in which a goodly part of the decline in the level of debt was actually write-offs and effectively a very significant part of the housing stock going into foreclosure and that of course moves it off individual balance sheets.

MR. BAILY: Can I ask you a question? The Treasury White Paper that just came out raised three options that they gave to Congress for the role of government going forward. One was an FHA-only option, a small, narrow role for government. The second was that the government would provide a backstop to the mortgage market at a time of crisis. And the third was more extensive, the role of the government as a reinsurance vehicle for the mortgage market. You may not want to answer this question, but I'm asking it anyway. Do you have a preference among those three or do you have a different the view of what might be, if any, the role of government going forward?

MR. GREENSPAN: I'll pretend to answer the question.

I'm aware of what Tim said -- the Secretary said -- and I thought it was a good presentation, frankly. The problem I'm having is that we have gotten the housing market into such a state where, as you know, virtually all mortgages are one way or another government financed, government guaranteed.

SPEAKER: Right.

MR. GREENSPAN: And we get the impression that because of that the private market is dried up. Well, of course it has. The difference here is that we don't have any good sense of what is out there ex the actions of Fannie, Freddie, Ginnie, and the operation, and I would frankly like to see at least an academic simulation what the yield spreads would look like if the government was not there.

And this may sound like ancient history, but I served on a savings and loan holding company board in 1962, and all we had really to finance mortgages was savings and loans. And it was an incredibly effective market where you had a huge amount of home construction, because the baby boomers were just building up -- and you having the Levitt Towns and the all the other types of operations going on.

But I will tell you, aside from the very chronic concern that those of us, as economists or finance people, who were in the S&L industry felt very uncomfortable about the fact that a savings and loan institution as constructed at that point was not a viable institution. It required that inflation was low, and therefore interest rates were low. And you could play the yield curve, which was indeed how a lot of those holding companies had stock prices at 50 times earnings. It was really extraordinary what was going on back there.

But it struck me, especially after the S&L debacle many years later, that there's nothing wrong with that particular model if we could get the people to swap their short-term, overnight liabilities into longer-term debt. It would have cost another 100 basis points -- I'm not sure what it was -- but the shortsightedness was something you couldn't get around.

And when you look at Northern Rock in the recent crash, that was essentially the same thing. They went from deposits, which were reasonably stable to short-term financing, why? Because they could get a few basis points less.

SPEAKER: Right.

MR. GREENSPAN: And I would be very curious to get a sense of what the current housing market would look like if the government were out.

I know there are several things. One, interest rates -- mortgage rates -- would clearly be higher. But the question is: how much higher? The size of the market would be smaller because of that, and is that all bad? We went through a period of hyping up housing in every conceivable respect, and I think it was the general consensus within the economics profession that we were putting too much of the nation's capital into home ownership. And the fact that it turned around so dramatically with the crisis -- remember, we erased virtually all of the run-up in home ownership in a very short period of time -- tells you how unstable that is.

In any event, before we get into the notion of which of these various different pockets we wish to put the new sets of regulation in, it would be useful to get a sense of what the alternatives are. To start merely with saying we are going to stop -- start -- somewhere in the middle presupposes a degree of subsidization, and the size of which we do not have the slightest clue about.

And I think we get a much broader notion of what would work and what would be to the nation's interest if we first had some view of what level of degree of subsidization we find desirable and acceptable. And I don't think we're getting into that discussion. It sounds to me as though we are sort of starting somewhere in the middle, working our way backwards and forwards.

And I've been looking at this market for generations, and I don't have a clue what we have here. I do know a home mortgage -- an amortized 30-year mortgage -- has a value to an investor. The only question is: at what yield? I have no doubt that you could probably sell subprime mortgages at almost any volume, if people wanted to take the risk that would be implicit in the mortgage, and accept a 13 percent yield, or whatever the number would be.

SPEAKER: Right.

MR. GREENSPAN: But let's get a sense of what it is we're trading off here, rather than making the key decision before we go to square one.

SPEAKER: Thank you. That was the best pretend answer I've ever heard.

Bob Posen has a question.

MR. POSEN: So actually, some of the papers here tried answer that question and give you some modeling. And I think it's a fair statement that, if you look at those papers...

MR. GREENSPAN: I have looked at them.

MR. POSEN: ...and the sources, that there would be some increase in interest rates and a decrease in the supply of mortgages. But I think that my sense is politically we could handle that.

There is a second argument, and that's what I'd like to know what your view is, because it's essentially that that's in normal times. But the reason why we need either insurance all the time, or as a backup, is because when there is a liquidity crisis -- whether it's every 20 years or 30 years or whatever you want to define it -- at that point the notion is that even at a higher price, that people won't buy, and implicitly the notion must be that the Fed doesn't have powers to deal with it.

So, I guess I would like to just refine your excellent answer from before, and try to get you to take one step further. Because I think that when that work is done, actually people might be willing to accept that as normal times. And then it's the second argument that seems to motivate people to say: we need either a backup insurance or a full-time insurance. And that implicitly assumes that the pricing mechanism that you just described won't work. And it also implicitly assumes that the Fed doesn't have other tools to deal with it.

MR. GREENSPAN: Well, with 13-3 essentially gone, the Fed does not have the tools it did have. But this is more a non-housing question, because it rests very critically on the issue of how unusual this recent crisis was. From what I can gather, this crisis was the greatest financial crisis ever. It was not as large an economic crisis, obviously, as the Great Depression, but the short-term money markets did not go out of business during the Great Depression. The call money rate went up to 20 percent, but it still traded.

But in this particular one, we had major aspects of the short end of the market collapsing. And that is the -- the short overnight rate is the ultimate determination, when it goes, of how bad the crisis is. The last time we actually had a shut down in a short-term market, as I recall -- I wasn't there, but some people think I was -- was in 1907.

SPEAKER: I remember it well.

MR. GREENSPAN: The call money market shut down for one day. And going back in history, it is very difficult to find anything like this. Now, I grant you that when you get a structural breakdown of the type which we had, you have no substitute for -- other than substituting sovereign credit for private credit. And that's indeed what was done.

And I happen to have been a strong supporter of TARP. I think it was the right thing at the right time, and I think it worked. The question of which the repayment was out of the capital gains they all got as the stock market went up is a secondary question. What it did do is when the market was going down, it stabilized a lot of institutions. I think we have to do that periodically because the system has human nature associated with it, and human nature has a remarkable tendency to do very peculiar things.

So, I first say, if you are going to make it every 20 years we're going to have a problem like this, then I'd have to agree with you. But I don't see it that way. I see that this is a much rarer event. And I think the critical issue you have, and the catastrophic insurance issue, which is basically what everybody is talking about, is: how in the world do you price it? I mean, we know that if we actually had a probability distribution of potential outcomes, and we had a full measure of the tail risk, we would probably calculate the cost of the subsidy -- in fact, almost by definition -- at the margin where people who are borrowing money would be indifferent as to whether they would be getting either one or the other.

And I will tell you, however one does this catastrophic insurance calculation, the numbers that come out really implicitly only refer to, quote, normal times. And, so it is a degree of subsidization and I think you have to ask yourself: is it worthwhile or is it not worthwhile? And this is where the issue comes in, and from your point of view, you would say: it is worthwhile.

From my point of view, I would say I would agree with you if I agree with the underlying premise of how often we have these crises. But that's the type of discussion we need to have -- just not parading out a whole series of different ideas unconnected to anything in particular.

SPEAKER: There's another question coming, but can I just sneak in...

You mentioned that 13-3 is gone, and that the TARP was helpful. Well, though TARP was very hard to get -- it took a lot of political effort to get Congress to pass it -- do you think with 13-3 gone we still have enough tools to deal with these rare but very severe crises?

MR. GREENSPAN: I don't think that if you have a committee of diverse people that you could get 13-3 acted in a timely manner -- and Don Kohn is sitting there. Don could probably tell you that it wasn't self evident to everybody that that was the desirable thing to do. And the reason why that happens is that we all have this very unusual, psychological problem. We believe that we can forecast. And we can't.

I mean, a financial crisis, by definition, is a dramatic decline in asset prices virtually overnight. And if that were anticipated by the great majority of the people, it would be arbitraged away. And indeed I don't know how many crises we never even were aware or in the process of brewing which got arbitraged away before we knew it. The only one I would say we were very clearly aware of -- is my recollection that the trigger of the crisis that was going to occur after, say, 2005 -- whenever it happened -- was going to be a collapse in the dollar because our current account balance was out of whack.

SPEAKER: Right.

MR. GREENSPAN: Everybody agreed with it. So what happened? The dollar basically moved down very sharply over a number of years and arbitraged the crisis. And the one thing -- the only thing -- that had nothing to do of any significance with the crisis was the American current account balance and the dollar.

So I think that there is a -- just general implication that we can have committees, which can somehow anticipate events. Good luck. It will not work that way. I sat in meetings for years and years and years and it is remarkable what amnesia overcomes you after the fact.

You forget how little you knew, and I just question how successful we will be in setting up some of these things.

SPEAKER: Dwight.

MR. JAFFEE: I'm Dwight Jaffee from UC Berkeley. I'm one of the researchers that have actually looked at the question of what might be the level of U.S. mortgage rate in a private, nongovernment market.

The key evidence we have is, of course, most of Western Europe has mortgage markets with very little government intervention, with a ride range of fixed rate and variable rate mortgages. And the evidence is that by and large their mortgage rates -- the spreads of their mortgage rates to their treasury rates -- are lower than ours. And of course the leading question is: what are they doing that makes it work? And I think there are two answers.

First, a lot of the options that are free in our mortgage, such as the prepayment option, are actually priced there. And that's worth 50 basis points. So immediately you've knocked off 50 basis points if you make the borrower make a decision whether they want a free prepayment option or not.

MR. GREENSPAN: They used to be able to do that.

MR. JAFFEE: But it... Several...

MR. GREENSPAN: Or I would say...

MR. JAFFEE: I advocate going back to that. And then of course a lot of those countries have recourse, which means that in a sense the borrower has a much more difficult process of default. And the bankruptcy laws do not allow bankruptcy to be an alternative to the recourse.

So I think if we move to a safer mortgage market, and a safer instrument, we actually would probably end up with lower mortgage rates. The question, in a way, is: is this political system up to creating a menu of mortgages, and allowing the consumer the ability to make a choice among them and pick the one that they actually feel is best?

MR. GREENSPAN: Well, you know, there is double entry bookkeeping. And you find that some structures which help one group, disadvantage another, and vice versa. And the whole purpose of getting market prices is that this is supposed to be a nonpolitical, anonymous way of making choices among democratic societies.

I'm usually arguing on your side, but there is another question here, in fact, that there is a quasi-implicit guarantee in Europe that banks will not be allowed to fail.

SPEAKER: Exactly.

MR. GREENSPAN: And that when you've got that, it is almost the equivalent of Fannie and Freddie not being allowed to fail.

SPEAKER: We had this argument earlier, but I'm glad you're on my side.

MR. JAFFEE: Could I just say -- one answer to that is that role -- I agree with that -- then the regulators take a very -- but it's made a much easier job when the underlying mortgages are very safe. In other words, their mortgages are like Double-A securities, so it's a much less of an onerous task on the banks and the regulators to have them than if you have a system where the underlying mortgages are B's.

MR. GREENSPAN: I mean, they've been having covered bonds for generations. But they don't have an FDIC. For those of you not aware of this, the problem -- well, we have uncovered bonds in the United States is the sequence of where claims fall in a bankruptcy proceeding. And FDIC always insists that it not only be on the top, but on top of the top, and that's not going to work in this type of context.

SPEAKER: You talked about the recovery of housing. Your main part of your speech was about what's happened to housing. You said the economy is recovering impressively. Where do you think the growth is coming from? Your discussions about housing suggested that that's going to be a slow road.

Now investment tends to do well if everything else does well. Equipment and software is doing okay, but we need other things to keep growing in order to grow. Nonresidential construction is still fairly weak. So, where is this impressive growth going come from? I agree with you, by the way, but I am a little nervous about where we are going to get this growth from. Exports? Or consumption?

MR. GREENSPAN: Martin and I have discussed this previously, so I'll just repeat it.

SPEAKER: I wanted to give the world your...

MR. GREENSPAN: My view is that one of the consequences of the extraordinarily long period of virtually no contraction in the American economy. From the early 1980s forward and very little, and indeed, it was interspersed with the 1987 stock market crash, which historically would almost always have brought economic activity down because the wealth effect was dramatic at that time. And then we had the dotcom boom. We had a soft landing in the process. And the consequence of that is that all the vast proportion of capital investment was for longer-lived, market expanding-type investments. And the result of that was a very dramatic change in the capital stock and in employment and productivity. But it did create, I should say, an unexploited backlog of cost-saving investments. When the economy went into the sink, all of a sudden you had this large amount of potential, fairly safe, investments. And the result of that was that we have had, up until very recently, an extraordinary rise in cost-saving investments, which largely, of course, hit labor -- boosted labor productivity, but it also shows up as significant gains in energy productivity and materials productivity. And the result was without any increase of significance in sales, margins opened up wholly because of the productivity changes. This created a surge in profitability, which under ordinary circumstances would have created a major increase in investment and long-lived assets. But if you take a look at the ratio of fixed capital investments, illiquid capital investment, as a share of cash flow, you find very quickly that what you are looking at is the willingness on the part of corporate management to convert liquid cash flow into illiquid fixed investment. Their propensity to do that is a very important measure of their sense of confidence or lack thereof, and the data show that what has happened in this particular period is we're looking at the lowest ratio of fixed capital investment to cash flow up until -- or I should say, maybe six to nine months ago -- the lowest since 1940.

Now I want to just parenthetically say, I'm not talking about liquid markets. Liquid markets are very different. A Baa corporate tenure note, for example, is highly liquid and, therefore, has an effective maturity of five minutes. What you're looking at in a liquid market are essentially short-term -- effective short-term maturity instruments, which often have, depending on what the maturity is, a highly volatile interest rate risk and credit risk, but not liquidity risk. This is the reason I might say parenthetically that a non-financial corporation keeps capital at 50 percent of its assets, whereas a financial institution like commercial banks is at 10. And what I'm raising here is the fact that something very significantly dampening is occurring on the American economy, which is suppressing it. I'm just finishing up an article, which will be published by the Council on Foreign Relations on this. I did an op-ed piece for the *Financial Times* a while back in which I tried to explain this. But I think this explains something very unusual. It's the reason why the -- I don't know the best way of putting this -- it's either price earnings ratio or more importantly equity premiums -- are at the highest level in a half century. And that means that with a surge in profitability in the context of a very high degree of risk premium, the stock markets have been going up very gradually against the pressures of extraordinarily high equity premiums. What this means is that we have a very significant backlog in which we have been getting a major wealth effect, which has been spilling all over the place. Remember, what energized the financial markets from their lows in the early months of 2009 was a dramatic rise in equity prices, which essentially created for the banks a big increase in the market value of equity, and it is the market value of equity which determines what level and risk type liabilities you can sell. And with the market value of equities doubling in the banking system, all of a sudden they didn't quite open up for lending, but the issue of solvency disappeared. And this is true as it spills over into the non-financial sector -- and to just end this answer on a more positive note -- what is now -- what in the process of what we are seeing is the fact of the wealth effect in the consumer markets. In the last four or five months, these markets are beginning to look very much like they used to prior to the crisis. And you've got personal consumption expenditures, and last quarter was up 4.4 percent annual rate as I recall in real terms. The monthly running data say that the first quarter of 2011 are really quite strong. And this is mainly consumption. And it is mainly the fact that part of the whole collapse in the whole market and stock market induced a dramatic rise in the settings rate as one would expect. And I think we're now working in the other direction. So I think this thing is just building. And if we somehow could get beyond this very over -- very heavy overhang in the residential markets, it would be very helpful. But remember, with 400,000 single-family completions and no vibrant multi-family construction, we're getting nothing out of home construction. And the non-residential construction part of capital investment has been flat to dead. All of the increase that has occurred has been in short-lived assets. In fact, one of the calculations that -- and I think I mentioned this to you the other day -- that if you take -- if you reconstruct the gross domestic product by age of the type of elements within the GDP, what you find is that if you look at the GDP of only those assets which are 20 years of perspective life or less, the -- since I guess the last three years -- the GDP has been growing one percentage point or more than the official numbers. And if you translate that into the total GDP -- if we didn't have the collapse in these longer lived assets, mainly construction -- we would have had a GDP going up enough to have pushed the unemployment rate -- if you just do something which I hate to do, leave everything as though it were -- you get under 8 percent unemployment rate just merely by the growth rate, using the same productivity levels and all the various other elements, it turns out that the equivalent of that cumulative one percentage point over three years translates into well over a percentage point in the unemployment rate.

And so you can -- this is a very unusual situation, and I think there are so many things going against it that it's very hard not to start to pick up because we are beginning to see a degree of lesser activism, which I think has been the major contributor for this suppression of a level of illiquid risk. And the numbers are just gradually now beginning to soften and look somewhat better. And ordinarily I don't listen to businessmen when they're complaining because it's usually -- or they can't get a subsidy. But when they tell you that they are very much at sea as to what the future is going to look like, if that is true, what is happening to the degree of illiquid risk in the economy is precisely what you would expect if that were their view. So without taking what they're saying at face value, they are behaving as though they really believe that.

MR. BAILY: Other questions? One at the back there.

MR. WINSHIP: Hi. I'm Scott Winship. I'm with the Pew Economic Mobility Project. Running through the discussion so far has been this undercurrent about how attempting to help the disadvantaged creates in its own way a lot of problems for broader macroeconomic policy. In his recent book, Raghuram Rajan has this idea that I wanted to get your thoughts on, which is that the United States has a relatively thin social safety net, and that in turn puts pressure on fiscal policy but also monetary policy to stimulate the economy more aggressively perhaps than might be best, which he argues in this case led to the housing bubble. In your view is there any merit to this idea that broader safety nets or the thinness of them does actually translate into impact on monetary policy?

MR. GREENSPAN: I would doubt it very much. Let me just say with respect to the argument about easy fed monetary policy, I'll refer you back to the paper I just wrote for the Brookings panel. And I address that subject, and while I acknowledge the possibility that it could be or could have been, the data show that it was not. And the fact is what we're looking at is the real world. Why would we be dealing with something in which monetary policy was a major contributor to the bubble, and I would say that you look at the evidence as to what was going on in these markets, the evidence is you can't find it.

Now I will grant you that there's a tendency for somebody who's sitting in the middle of the Federal Reserve to come up with that conclusion, but I do have a wife who tells me, you know, "Be careful." And the question is the data have to stand on their own. If I'm wrong in that, I wish somebody would take a look at the Brookings panel paper that I wrote in which part of it, not all of it, relates to that issue. If they can find a hole in my t-values or among the biases in my regressions, I will change my mind. I'm waiting for somebody to do that, and I'm prepared to change my mind, but no one's tried it yet. I don't know that they'll succeed, but have fun.

MR. BAILY: There's a slightly nuanced version of that, though, which is not around monetary policy per se, but that it's all these incentives for housing which we either capped or strengthened were a way to provide additional wealth to middle- or lower middle-class families that weren't getting much increase in their labor income. So I think that's part of Rajan's argument as well, that this was a little bit of policy conspiracy of let's buy off these folks. They're not getting any money, so let's generate a housing bubble. I don't actually believe that, but that's -- I think that's part of the story.

MR. GREENSPAN: If it were -- if that were the -- I mean, one of the rare advantages of sitting at the head of the Federal Reserve system is that you are right where all those conspiracies are supposed to happen. And in eighteen and a half years, I don't think that I recall a single instance of that sort of thing going on. You know, I always used to argue that when the Congress would say, “You guys do everything in secret, and it’s all conspiratorial.” And they were pressing us to open up our minutes and this sort of thing. So I finally invited down a couple of senior staff people from the Congress to sit and listen to the actual oral transcript of a meeting. They went away and I never heard from them again. And one of them actually said as they were going out the door, “You know, you ought to play this for high school students and they would see the way our government functions.” Now that is about as far as you can get away from -- without naming names -- some of the conspiratorial views of what goes on in government. It’s not that bad.

MR. BAILY: Question here and then I think we’ll --

MR. WILLIS: Mark Willis at NYU. I just want to pick up on that fact about stagnant incomes for all but the highest parts of the distribution and come back to this issue of housing prices because you talked a lot about factors that may be contributing to an excess supply. But we didn’t talk a lot about what people are going to be willing to pay for housing going forward given this stagnation of income, increases in medical costs, and energy costs. That housing is not going to be viewed, at least in the short run, as a great investment. So how much will people be willing to pay for housing? How will that affect, do you think, evolution here of housing prices until we get to some new floor?

MR. GREENSPAN: This gets down to the critical question of what proportion of the propensity to buy homes during the boom period was attributable to the expectation and, in fact, the need to get a capital gain? Because the data do show that some significant part of it is that. Now what you have to essentially do, I guess, is to try to separate that factor out and you’ve got a normal market or as close as we can get to it. I’ve actually not seen that done. I’m sure that people in this room have done that. But I think it’s important to realize the extent to which housing is a very critical investment vehicle for a very substantial proportion of the population. It's their sole, major source of increased wealth and decreased wealth. And we should be able to ferret out from all the various surveys that we have where the dividing line is between adding to the owner-occupancy capital stock as a function of price expectations and not merely a desire to live in your own home.

MR. BAILY: Alan, thank you so much for talking. That was just terrific.

People can take a little break, finish their lunch, and we will reconvene at 1:30, 1:30 sharp.

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CERTIFICATE OF NOTARY PUBLIC

I, Carleton J. Anderson, III do hereby certify that the forgoing electronic file when originally transmitted was reduced to text at my direction; that said transcript is a true record of the proceedings therein referenced; that I am neither counsel for, related to, nor employed by any of the parties to the action in which these proceedings were taken; and, furthermore, that I am neither a relative or employee of any attorney or counsel employed by the parties hereto, nor financially or otherwise interested in the outcome of this action.

/s/Carleton J. Anderson, IIi

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Expires: November 30, 2012