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YPFS Lessons Learned Oral History Project: An Interview with Donald Kohn

Donald L. Kohn

Maryann Haggerty

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Lessons Learned Oral History Project Interview

| Interviewee Name and Crisis Position | Donald Kohn¹  
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| Interviewer Name                  | Maryann Haggerty (Contractor)  
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Introduction:

The Yale Program on Financial Stability (YPFS) interviewed Donald Kohn about his role in the 2007-09 financial crisis.¹ At the time, Kohn was vice chair of the Board of Governors of the Federal Reserve System. In that role, he was a voting member of the Federal Open Market Committee (FOMC), the powerful monetary policy group. He also was involved in the bailout of American International Group (AIG), the big insurance company, via what is known as Section 13(3) lending. Under that legal provision, the Fed was able to lend to nonbank firms during the crisis.

Kohn, an economist, is a 40-year veteran of the Federal Reserve System. He served as a member of the Board of Governors, then as vice chair, from 2002-2010. Prior to taking office on the Board, he served in a variety of staff positions.

Kohn holds the Robert V. Roosa Chair in International Economics at the Brookings Institution and is a senior fellow in the Economic Studies program there. He also currently serves as an external member of the Financial Policy Committee at the Bank of England.

[This transcript of a telephone interview has been edited for accuracy and clarity.]

Transcript:

YPFS: Throughout this discussion, I'm going to try to steer things towards lessons that we can learn from the experience of Mr. Kohn during the 2007-09 global financial crisis. As we talk, I'm going to keep coming back to that. However, I'd also like to keep in mind for future reference that this conversation is taking place in March of 2020, when the United States and the rest of the world is in the midst of a global pandemic. Although much of our

¹ The opinions expressed during this interview are those of Mr. Kohn, and not those any of the institutions for which the interview subject is affiliated.

² A stylized summary of the key observations and insights gleaned from this interview with Mr. Kohn is available here in the Yale Program on Financial Stability’s Journal of Financial Crises.
conversation will be backward looking, we're also looking a bit forward on how policymakers might deal with this new and possibly quite different crisis.

We're going to talk about AIG and we're going to talk about the role of monetary policy during the financial crisis. But let's start off talking about the perspective that you brought as a career Federal Reserve employee to the Board of Governors and how that complemented the perspective of other members of the Board.

Kohn: I think my perspective as a career member of the Board staff for many years, working on both monetary policy and on lender-of-last-resort discount window issues, was very valuable to the Board, to Chairman [Ben] Bernanke, as we went through the process. I knew the history. I remembered and had worked with other staff members on various facilities and things that we had tried over the years. Not that I'd ever been involved in the 13(3) lending, the individuals, partnerships, and corporations because it never had happened, but I was aware of the history of it. I think that perspective, that knowledge was helpful to others as we went through it. I knew the staff and I knew who could do what. I tried to be useful in any way I could in the crisis period, bringing that historic perspective to bear.

YPFS: Now you were involved in discussions with AIG management leading up to and during the Fed’s first intervention with AIG. Obviously, the Board and the New York Fed worked together with Treasury, but can you talk a little about what was the role of the Board, the New York Fed, and the role of Treasury, and how they interacted?

Kohn: I actually don't recall Treasury being involved in those discussions about AIG before the first loan, but certainly they were deeply involved after the immediate discussion. I guess [Treasury Secretary] Hank [Paulson] was talking about replacing the CEO so they were involved, but I think the main actors in that first loan were the Board and the New York Fed. The Board had to approve the loan because it was a 13(3) loan. It had to be approved by all five members of the Board. That's all we had at the time.

The Board needed to consider that, and then the New York Fed was obviously there. That's where AIG was headquartered. That's who was in charge of executing the loan, of interacting with AIG. There was very close coordination with the New York Fed. The Treasury was kept informed and they knew exactly what was going on and they informally approved. I mean I don't know. There was never a question about, gee, what does the Treasury think? It was pretty clear what the Treasury was thinking, that this was a huge problem that needed to be handled.

It was a very difficult situation for a number of reasons. The obvious, AIG was huge and one of the world's largest insurance companies, with subsidiaries all over the world, and one of the biggest in the United States with multiple lines of
business that would have been impacted by a failure. But also, the timing was horrible.

The U.S. had basically taken over Fannie Mae and Freddie Mac the previous weekend. Through that whole period, financial markets were deteriorating badly—late August, first half of September. That weekend, the weekend that AIG and I were in conversations, was the weekend that the New York Fed was trying to organize a private consortium to put money into Lehman Brothers, which of course didn't work and they filed for bankruptcy Sunday night.

There were a lot of things going on at the same time. Then, Lehman's bankruptcy itself of course made everything worse, but even without Lehman's bankruptcy, AIG was headed for deep, deep trouble. In my memory, they had initiated contact with senior staff at the Board of Governors, Brian Madigan, the previous week. Brian was the head of monetary affairs. He was keeping me informed. I was trying to keep Chairman Bernanke informed.

We had numerous conversations, as I remember it, late the previous week and over the weekend about a coming downgrade to AIG. I just want to emphasize this was going to happen before Lehman's problems. I mean Lehman's problems were there, but before Lehman failed. It wasn't triggered by Lehman's failure. It was triggered by the terrible deterioration all around. That's how I got involved in those conversations the previous week, and then over the Lehman Brothers weekend.

YPFS: Were the roles and responsibilities of those different overseers clear and have they changed in retrospect? Have they improved since then?

Kohn: I'm not inside. I can't say I would say on that, but here's what I think. You had asked about the Treasury. The Treasury was kept informed. They knew what was happening. They supported our actions, but under Dodd-Frank they would've had to give a formal okay. To some extent, Dodd-Frank embodied in law an informal close working relationship between the Fed and the Treasury that existed through this crisis.

I know some academics have worried about that. They say, “We can't be sure that every Secretary of Treasury will be as knowledgeable and have as good judgment as Hank Paulson or Tim Geithner. It's dangerous, a lack of Fed independence to give this veto to the Treasury.” I never worried about that so much. I worried about some other things that Dodd-Frank did, but I didn't worry about that because I thought that if you were in the kind of crisis that required 13(3) lending, then there would be close coordination with the Treasury and the Fed. I would say that's obviously what's been happening over the last few weeks here.

Now one thing that Dodd-Frank also did was an AIG type of lending facility wouldn't be available anymore because it was aimed specifically at that institution. Now 13(3) must be broadly available. I'm not sure under Dodd-Frank
what we would’ve done or whether we could’ve designed a lending facility that would now pass 13(3) muster that helped AIG. I think that's one of the worrisome “reforms”—in quotes—that Dodd-Frank made to 13(3).

You could have a systemically important institution that was going down for its own idiosyncratic reasons in the middle of a broad crisis—if it was just idiosyncratic and the economy and the financial markets were calm, that might be fine. We might be able to do that under another piece of Dodd-Frank, Title I or Title II resolution, but, but, but in the middle of a crisis I think you want all the tools you can have. I don't know how we would've handled AIG or whether we could have handled AIG under the current law as it now stands.

YPFS: When you mentioned a few seconds ago that you had some other concerns about Dodd-Frank, is that what you were referring to?

Kohn: Yes, I think I have on concerns on what they did to 13(3). I mentioned one, the approval of the Secretary of Treasury, which I don't think is that bad, that big a problem, but I’d worry about the transparency requirements.

For any loan under 13(3), the name of the borrower has to be sent up to the chairs of the banking committees in the House and the Senate, I think within seven days or in about a week. The Chair of the Fed can request those names be kept confidential, but we’ve seen that in other environments with other kinds of investigations and things that doesn't always work.

I guess I’d be concerned that the transparency requirements of the Act, one, will make firms much more reluctant to come into the Federal Reserve and avail themselves of discount window loans or special lending facilities. As a consequence, the stigma of borrowing will be worse. If their names are revealed, then they will be seen as weak and they will suffer even more consequences in the market. I worry a lot about the transparency requirements of the new legislation.

YPFS: Moving on, and again we'll stick with AIG for a few moments, what information were you able to glean about AIG and its role in the financial system leading up to the September 2008 $85 billion facility? What data do you wish you had in retrospect?

Kohn: I think my memory here, and it's been 10, almost 12, years, is that we didn't have that much information. We knew, obviously, whatever was public about AIG, but remember everybody was very, very busy. We had some reports from the AIG supervisor in the state of New York, the insurance supervisor. At least in my memory, one of the things we relied on in making the loan was his assurance that the insurance companies were viable, solvent, valuable, so that we could take them as collateral for making the loans and would be sufficiently collateralized to make a loan. What we didn't know and what was very disappointing to me in my conversations with AIG executives, including the CEO in those few days over the weekend, was they didn't have a very good sense of their own liquidity needs, and
how they might develop over the coming weeks. They didn't have a good sense of how they were going to get out of the mess, as I was reminded a few years ago when that court case was being adjudicated. At one point, I wrote in an email I think to Chairman Bernanke and maybe President Geithner as well that I felt that AIG was trying to fund a bridge to nowhere.

That is, I remember being very disappointed that they didn't have a day by day count of what their liquidity was, how they were going to handle it, what their sources and uses of funds were so we could see the size of the hole and what might happen under different circumstances. And they didn't have a plan for how they were going to pay the loan back. I was disappointed. I was not happy with the amount of information we had. Now, I think this was just indicative of the less-than-stellar leadership of the organization at the time. I think the CEO had just come in a few months before, hadn't he?

YPFS: It was relatively short tenure, particularly considering they had been a company that had been led by one person, [ex-CEO Hank Greenberg], for so long.

Kohn: Right, right, and I remember also hearing from the New York Fed people who ended up going into the company that their systems were inadequate in a number of dimensions, including for personnel and all kinds. I think you just enunciated a key point, which is that it had really been run by one guy for decades and it wasn't robust to a change in leadership. The systems weren't there. They didn't know. I guess the top of my wish list at the time for data was liquidity data. I mean they're asking for liquidity and didn't have a good fix on what their cash flows would be under various circumstances, like downgrading and how much liquidity they might need.

YPFS: What can policymakers and regulators do to ensure that they have information they need the next time around?

Kohn: I think it's hard from institutions that aren't regulated at the federal level. It's one thing to say to a bank—remember the big banks now have all the living wills. They do various stress tests, both liquidity and capital stress tests. I think for a bank that was a deeply troubled bank that was systemically important, the regulators would have a lot of information. Furthermore, they would have people, supervisors, examiners who had been looking at that information over time and had a good sense of whether the bank really was viable over the long run or whether we were looking at a solvency problem instead of a liquidity problem.

I don't know what to do about it. You asked a great question and I don't know how to solve it actually when you have this very, very important industry, insurance, that is regulated at the state level. With coordination across states, I get that. They designate a chief overseer and there's [a National Association of Insurance Commissioners] that sets some standards across states, et cetera, but
still, I don't know how to enforce the stress tests and other information that you’d really need to make a judgment about liquidity and solvency in a crisis.

YPFS: Now in part, the Dodd-Frank designation process [for systemically important nonfinancial institutions] was meant to address that, but…

Kohn: Right, right.

YPFS: As we speak right now, the insurance companies that were designated have all been de-designated.

Kohn: Right.

YPFS: Do you have any thoughts?

Kohn: I think I'm disappointed that designation process didn't work, was so easily undone. I didn't follow it closely enough. First of all, I guess the first thing to say is I agree with you that the whole point of designating these guys was to make sure that there was somebody at the federal level, and specifically the Federal Reserve, that was going to be the one that would've had to make a loan, had information and had done stress tests, et cetera.

I think maybe the designation process could have been better handled, more transparent. Some of the complaints that I read in the paper about it, I wasn't inside, from the insurance companies seemed legitimate about the transparency, the process, and the responsiveness of [the Financial Stability Oversight Council] (FSOC) to their complaints.

But I think it's a mistake to give up on that. Saying that, “Oh, we're going to regulate activities, not companies,” is a saying. It's not a plan. It's not a policy. They might think it's a policy, but I don't know how you implement it because all these activities are carried out inside entities. I don't think we have a clear vision from FSOC about what they really mean and how they're going to carry this activity, not entity, regulation out.

We've seen in the current crisis that life insurance companies take a pretty big hit in the stock market more than, someone said, more than airlines. I mean they're threatened on a number of fronts. One obvious one is that there's a spike in mortality, but I think even more they're threatened by continued low-for-long interest rates, by deterioration in business credit quality, because they're huge holders of corporate debt. That's their main asset. If that debt is riskier than they thought and prices have dropped, they've got to mark to market. They're under stress. It'll be interesting to see how that plays out and whether FSOC and others are as complacent coming out of this as they were going into it about the insurance industry.

YPFS: At the same time that AIG was posing its problems, you were also a key player in monetary policy as a member of the Board of Governors. As you
may or may not remember, on September 16th of 2008, right after Lehman-AIG weekend, the [Federal Open Market Committee] (FOMC) voted to maintain the Fed funds target rate where it was at 2 percent. Can you talk about that decision? To put it in context, Chairman Bernanke has written that in retrospect he thinks that might have been a mistake. I don't know what your memories of the time were.

Kohn: We just didn't have enough information to act. I mean this is a nice illustration of just so many things happening at the same time. It's hard to integrate them and figure out what the right thing to do is. I think we acted shortly after.

YPFS: Yes, you did.

Kohn: I remember reading that in Bernanke's book and saying, “Well, maybe, sort of,” but not a serious mistake because we corrected it very quickly. The whole thing was, as I remember, we were kind of late starting the meeting, the FOMC meeting, because we were in Ben’s office on a conference call dealing with the fallout from Lehman, maybe even AIG. I can't remember the exact contents of the call.

Partly it's also a result of the monetary policy process having some inertia in it. A lot of preliminary views are formed the previous week and then debated at the meeting, but people come into the meeting and the press releases are drafted. It's hard to switch at the meeting. It can be done, and Chairman Bernanke did it a couple of times, where he led the committee to a more forceful decision—this is after the collapse in September 2008—than perhaps they had been thinking about. It was just so much stuff happening and focus on so many different places. Frankly, I think the AIG and the money market funds dealing with the fallout from Lehman was more important than whether the funds rate moved a little bit and we obviously could correct that.

YPFS: Over the next two months, October and November, you eased aggressively. Can you discuss the thinking during that time?

Kohn: It was clear that the economy was entering into a free fall. The financial markets had frozen up. Financial conditions tightened substantially because the stock market was dropping and credit spreads were widening and credit simply wasn't available in many dimensions. That's why we started so many of those discount window facilities, commercial paper facilities, et cetera, or asset-backed commercial paper. We needed to be very aggressive in lowering interest rates. Then, in, what, late November, the New York Desk started buying [mortgage-backed] securities, MBS.

YPFS: Right.

Kohn: I'm not sure about Treasuries, but MBS certainly, and the size and the weight of those reserves drove the federal funds rate essentially to zero. My memory is that it was clear this was all-in. This was just recognizing the seriousness of the
situation and deciding we needed to do everything we could in inventing some stuff on the fly, like this MBS purchase when that market was so injured.

YPFS: How did the asset purchase policy evolve? Do you remember anything about that?

Kohn: Not clearly. I think this was a proposal from the Desk who saw that the mortgage-backed securities market was severely disrupted. They wanted to go in and help restore market functioning, similar to what we're seeing today. That seemed like an obvious and great idea. At least Chairman Bernanke and others said, “Yeah, let's go to Bill Dudley [then the markets chief at the Federal Reserve Bank of New York], who proposed it.” This is my memory anyhow. I haven't gone back and checked any records. This was the right thing to do. The mortgage market was at the center of the problems and dysfunction in that market, even in the agency mortgage-backed market, was just going to make everything much, much worse. Then, remember also that Ben Bernanke had given a speech in 2003 and written a paper in 2002, 2003. He had written a paper with Vincent Reinhart, who was then on the Board staff, talking about what to do when interest rates got to zero lower bound. I think he was prepared to adopt unconventional monetary policies. He’d thought about it. He'd written about it. I think that the move in that direction was a natural outcome of the circumstance and the leadership we were getting.

YPFS: To have unconventional policies come up from essentially a front-line operation like the Desk, what does a large organization—and we've all worked in them, we know they can move slowly. How do you remain open to unconventional policies that may work?

Kohn: I think it's a responsibility of the leadership of the organization to remain open to things that hadn’t been tried before and to listen with an open mind to people around them who are bringing these new ideas and to actively solicit the new ideas. One of the strengths of Ben Bernanke's leadership was indicated by the fact that he would send out what he called blue-sky emails, asking his colleagues and his staff for new ideas, different ideas.

“Here's a problem. The markets are jammed up in this way. What can we do about it?” I think it's hard. There's certainly inertia. I would say I think the further you are from the center of action, the greater the inertia, and I'm thinking about Reserve Banks here--some Reserve Banks, obviously not New York, but New York was right at the center of action, and the Bernanke, Geithner, Paulson triumvirate—troika—leading the crisis response was very, very closely in agreement. Some Reserve Banks were with them [the NY Fed], Eric Rosengren in Boston where he was dealing with State Street and the money funds. However, a number of Reserve Banks who were out across the country, particularly in the Middle West, maybe couldn't see the issues as clearly, were more reluctant. In Richmond, Jeff Lackler had a greater faith that somehow markets would sort this out. But it does take leadership from the center, the people dealing with it, and then I think confidence by the other people that the leadership knows what it's
doing to overcome a certain amount of inertia. Boy, I would say Jay Powell certainly has moved forcefully, quickly, adopted many of the things we did, but then expanded them to meet the needs of the time. The current Federal Reserve is being very, very proactive and not being held back. Whatever the magic formula is for that, Powell has adopted the Bernanke formula or whatever and carried it through.

It's certainly possible in a crisis. In a crisis, there is often a sense of, “We're in this horrible thing together. We've got to throw everything at it. Let's work together and hit this thing.”

Your question makes me reflect a little bit, because there had been a lot of discussion, going back on the monetary policy side about the Japanese situation in the late '90s and early 2000s, who were at the zero bound. That's the environment in which Ben Bernanke gave his talk about what to do with the zero bound. It was motivated by Japan. When he gave it in the early 2000s we weren't that far from it, but we weren't there yet.

There had been a conference in '99 I think or 2000, run by the Boston Fed in Woodstock, Vermont, in which a very influential paper by Dave Reifschneider and John Williams had been given. It was saying their modeling showed that for monetary policy when you were near the zero lower bound, the best thing to do was go forward rapidly and preemptively. Don't get stuck. Don't hold back and then have the economy be so weak that even going to zero doesn't help. The best thing to do is be preemptive and try and keep the economy from getting into this very weak position. I think the intellectual environment around monetary policy was go fast. Go soon. Don't hold anything back. The keep your ammo dry argument is not a good one under these circumstances.

YPFS: We are talking lessons learned and in your paper for Brookings in 2018 you laid out four lessons from the crisis that could help monetary policy decisions moving forward in periods of stress. I know you've said this elsewhere, but I'd like you to talk a little about these lessons. I'm pretty sure you know them, although I can read them to you if you like.

Kohn: Please read them to me so I don't get them wrong.

YPFS: Lesson one, recognize the considerable effects that financial developments can have on the economy and the uncertainty that attends the economic outlook during periods of financial stress.

Kohn: Right, I think that lesson was drawn from the difficulty of seeing just how bad it could get in the markets and then just how badly the markets could affect the economy. We looked at a number of the staff forecasts for what was going to happen to the economy. The staff had run alternative scenarios that had even worse financial market problems than were then apparent, but everything got even
worse than the staff had anticipated in the feedback of the markets on the economy.

Once you start cutting off credit, boy, it's a huge factor in the economy. I think in central bank monetary policy, and I would also say in the lender-of-last-resort policy, you need to anticipate the worst and prepare for the worst and remember that the worst is going to be worse than you think possible as you're going into it. It's what we're living through right now.

YPFS: **Have you thought about steps that have been taken or should be taken to make sure the policymakers can put this lesson into practice?**

Kohn: Yes, I think doing a better job of working the effects of financial fragilities and financial credit availability into our models was the first step. I know that the Federal Reserve has done a lot of that and that many economists have been trying to build models that incorporate the possibility of a financial crisis and then the feedback of that crisis on the economy.

I think we went into the crisis with, most of the models we were using were the only thing that mattered was the federal funds rate actual and expected. There wasn’t a credit availability problem. Basically, it was looking through the financial sector to the real economy. What we learned was you can't do that. You might be able to do that in peace time, but you can’t do it in war time. You can't do it when the financial sector in 2008, 2009, drove the economy and that wasn't part of our modeling. It was only peripherally part of our thinking. I think a lot of progress has been made there, although it's still I think probably not entirely satisfactory.

YPFS: **To the best of your knowledge, and obviously you don't have your fingers now on the modeling, but were people taking into account feedback on how the real economy affects the financial system and circle around? I'm thinking of the current situation where the problem does not start on the financial side.**

Kohn: I think probably only imperfectly and I'm not familiar with the current model. I don't know for sure, but I would doubt that. I think it's still the case. I don't know this and I hope I'm wrong, but it's still the case that the financial variables are pasted on to the basic model and aren't endogenous to developments in the basic model. I may be wrong, but I don't think so. I think we haven't really, that's very, very difficult.

Remember I think part of the difficulty here is we're trying to model the economy and the financial markets and those interactions in very extreme tail events. Most models are built around most likely kinds of outcomes, means and medians, and whatnot. We're trying to think about a tail event. While there's modeling going on I know to predict tail events, I don't think that's really been incorporated into most mainline models. It's a very, very difficult problem.
YPFS: Your lesson number two, which you've touched on already, but we'll bring it up anyway. Be sufficiently aggressive in cutting the federal funds rate as financial conditions deteriorate.

Kohn: This is the point I was trying to make about that paper in 1999, 2000. If the conditions are deteriorating, it's better to cut it too much than too little. You can always take it back later. If inflation gets going, you can always act against that. There's no limit on the upside of the policy variable of the federal funds rate. There's just a limit on the downside. That asymmetry suggests that it's better to be aggressive and stop and try to cushion the economy from the really bad stuff happening, because once it happens, you're really stuck and then you're with the unconventional policies.

YPFS: Moving on to unconventional policies, lesson number three, use asset purchases to achieve additional accommodation when the capacity to cut policy rates does not provide a sufficient response to economic conditions and do so with less concern about the associated risks. Again, as you talk about it, what steps have been taken and remain to be taken so that policymakers are in a position to put this into practice, to the best of your knowledge?

Kohn: I think the basic steps have been taken and are being taken right now in terms of the unlimited purchases that the Fed is undertaking. When we started this in late 2008 and then added to it in March of 2009, it hadn't been done before or it was only just being undertaken by a few other central banks like the Bank of England. No one quite knew what was going to happen.

There were concerns on the FOMC of two sorts that proved not to be a real problem. One was inflation. Buying all these securities, increasing the Fed's balance sheet, this would inflame inflation expectations. This would result in greater inflation. There were a lot of economists outside the Fed that thought the same thing. A good example is Allan Meltzer. I remember going to several conferences at academic institutions in the spring of 2009 after we'd done our all-in March meeting, so April, May 2009, and having Allan, but others also, bringing up Zimbabwe and Weimar... My goodness, no central bank has ever blown up their balance sheet like this without resulting in inflation. It was them not recognizing the problems of liquidity trap and the limits of monetary policy at the liquidity trap at the zero lower bound.

Inside the FOMC, there wasn't much of that. There was some concern that our doing this would have effects on inflation expectations--that people would anticipate this inflation coming the way some of these academics were predicting. Of course, that didn't happen. That was one issue that was talked about outside the FOMC and, to some extent, inside the FOMC that didn't come to pass.

The other one was exit. We have all this stuff on our balance sheet. How are we ever going to tighten monetary policy when it comes time to tighten policy? In the past, we'd tighten policy by reducing reserves available--by announcing a higher
federal funds rate and the Federal Reserve Bank of New York validating that by taking a little bit of reserves out of the market to make sure that supply and demand crossed at the new federal funds rate. That really hardly required any open market operations at all. The markets adjusted right away.

In September, we had been given the ability to pay interest on reserves, both required and excess reserves. This was something that Congress had passed into law on a couple years before, but it wasn't due to come into effect for a while. They sped that up. That ability to pay interest on reserves gave the Federal Reserve a way of setting a floor on interest rates, but it hadn't been tried. We didn't know what would happen. There was a lot of discussion in the open market committee in 2009 and 2010 about exit strategies. At the time, I recall being somewhat concerned that it was premature to discuss this and if people knew we were talking about this, they would think we were getting ready to do it. I was wrong. I mean we were able to clarify in the minutes of the meeting that nothing was contemplated right away. The discussion of exit strategies I think made the committee members more comfortable going all in on various large-scale asset purchases. I think this was a good move by Chairman Bernanke, but we hadn't had that experience. We had to work through that.

But now we have had that experience the Fed has moved aggressively with asset-purchase programs. I think certainly the inflation and exit issues shouldn't hold back the Fed and haven't held back the Fed over the last couple weeks. I think the Federal Reserve has learned that lesson that Brian Sack and I had at the end of the chapter.

YPFS: Your lesson four, which is the outward-facing one, provide forward guidance on interest rates in order to signal a policy reaction function that differs from history or market expectations. I think that that's been internalized, right? What would you say?

Kohn: I think so. I think we maybe will see how much as this particular crisis goes forward. Remember we started in 2008, I guess December of 2008, with some vague words. I can't remember exactly what they were, considerable period or something like that. Then, over time I think the forward guidance was strengthened and tied more explicitly to emerging economic circumstances and even to specific dates.

It became, I think, a more powerful tool in the Fed's toolkit as it became more sophisticated and more specific. I think you need to communicate to the market. It's not so much about what's happening right now. They can see what's happening right now. I think the risk that we worried about, and that I think Brian and I wrote about, was that the market would have these rates rising faster than the Fed intended to raise them once the economy began to recover.

If the market builds in the increase in interest rates under those circumstances, it's going to damp the recovery itself. The Fed needs to be very clear as the economy
begins to bottom out, as people begin to anticipate the economy bottoming out, about whatever its views are in terms of how rapidly it will need to raise interest rates and needs to guard against overeager anticipation of increases in rates by market participants.

There were even at the bottom of the recession in 2009, people talking about V-shaped recoveries. The sharper the drop, the sharper the rebound. I don't think anybody on the FOMC really thought that was going to happen when the financial system was broken so badly, but, there were people in the markets who did. It was necessary to damp those expectations down with forward guidance. The Fed has given some forward guidance now. I would expect them to have learned this lesson and as soon as people begin to see the health crisis begin to abate, level out, the risk is markets will start building in a turnaround in monetary policy. At that time, the Federal Reserve may have to give more explicit forward guidance. But there's every reason to think they've learned that lesson as well.

YPFS: **What do you wish someone had told you back in 2007 and what advice would you give to others that you wish someone had given you?**

Kohn: That's a really interesting question. To some extent, it's what we were just talking about. When you're in this kind of situation, assume the worst or prepare for the worst and act quickly, decisively. Try to head off the worst that can happen. Don't wait for the markets and the commentary to catch up with you.

Even in 2007, I can remember. I guess it must have been at Jackson Hole 2007, the focus of the discussion was moral hazard. At that time, we'd hardly done anything in retrospect. We'd made the discount window cheaper. We'd encouraged people to borrow. Maybe we'd eased policy a little bit. Then, there was all this discussion that, “Oh my God, you're creating moral hazard. There's a Bernanke put,” et cetera. Ignore that, I guess would be the advice. Just go fast. Go hard. Go soon. Correct the moral hazard issues later with regulation like in Dodd-Frank. Don't worry about it now.

That's one thing. I think the other: None of us appreciated how—this isn't advice, this is information maybe--interconnected and fragile the financial system would be, and how much risk had migrated outside the banking system, but was then connected back into the banking system through some of these special purpose vehicles.

There was a briefing of the FOMC in mid-2005, I think, that posited a housing crisis, that said, "House prices are overvalued by 20 percent. Let's see what happens if they fall. What would that do to the financial system?" The conclusion unfortunately was, “Well, banks are well capitalized. They’re profitable. There would be a recession, but it wouldn't be serious. It wouldn't be bad.”

We didn't see the fragilities. And 2007 would have been too late. So the advice I wish I had gotten in 2005, is there are a lot of fragilities out there. There are a lot
of interconnections, you need to understand them, you need to get on top of them, you need to make sure the banking system is resilient to the worst kinds of outcomes. Running a stress test in 2005 would have been really helpful. And you just need more information about more pieces of the system. I think we're generating that now and people are certainly doing studies of the shadow banking system; the Financial Stability Board. FSB does a lot of work on this.

There will be something unexpected. I think one interesting thing will be what comes out of this particular circumstance, are there some feedback loops within the system that even with our experience in 2008, 2009, we didn't see coming? Not quite sure what they would be, but I think it will be important and take lessons learned out of this thing. You're always fighting the last war. I mean that's the information you have. But you can make the system sufficiently resilient that when an attack comes from some place you hadn't anticipated, it will be able to absorb the attack and still continue to provide services.

We've seen some credit markets being quite disrupted this time. It'll be interesting to figure out why and how. Anything that the Fed isn't touching is not functioning well. The non-agency mortgage market is in very, very bad shape, for example. How could that be corrected? There've been some surprises and some things worse than we anticipated, but we need to figure out the lessons learned from that.

So these interconnections, the correlations, concentrations of risk that might not be obvious on the surface: We need to keep working at that.