Yale SCHOOL OF MANAGEMENT
Program on Financial Stability

Lessons Learned Oral History Project Interview

Interviewee Name and Crisis Position	Brian Sack[1] Executive Vice President, Markets Group, and Manager, System Open Market Account, Federal Reserve Bank of NY, 2009–12
Interviewer Name	Sandra Ward (Contractor) Yale Program on Financial Stability
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Introduction:

The Yale Program on Financial Stability (YPFS) contacted Brian Sack by email to request an interview regarding Sack's time as Executive Vice President, Markets Group, and Manager, System Open Market Account, Federal Reserve Bank of New York from 2009-12.[2]

In his role at the New York Federal Reserve Bank, Sack oversaw the implementation of the asset-purchase programs designed to facilitate more accommodative financial conditions, as well as seven of the liquidity facilities that were launched during the financial crisis. In addition, he was charged with monitoring the impact of the programs and measuring how well they performed during a time of extreme financial stress.

In this capacity, Sack served also as an adviser to the top policy makers at the Fed, updating them on market developments as well as keeping them abreast of the progress and impact of the programs.

Prior to his work at the NY Fed, Sack was a vice president at independent consultant Macroeconomic Advisors, where he was deputy director of the firm's Monetary Policy Insights. Prior to that, he had been a senior economist at the Federal Reserve Board, heading up the Monetary and Financial Analysis section.

Currently, Sack is Director of Global Economics at global investment manager and technology development firm the D. E. Shaw group.

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

Transcript

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[1] The opinions expressed during this interview are those of Mr. Alvarez, and not those any of the institutions for which the interview subject is affiliated.
[2] A stylized summary of the key observations and insights gleamed from this interview with Mr. Alvarez is available in the Yale Program on Financial Stability's *Journal of Financial Crises*.

YPFS: **Can you talk about the role you played in quantitative easing and introducing that concept?**

Sack: I rejoined the Federal Reserve System in 2009. The asset-purchase programs and most of the liquidity facilities had already been launched. But the asset-purchase programs were relatively new, and there was still a lot of discussion and analysis on how they worked and what role they were playing. My contributions were in two dimensions.

The first one was helping the Federal Reserve understand how the programs were working, what channels were working, and how they mattered in a period of financial stress.

The perception was that they were needed, but there was still a lot of ongoing discussion about how they operated. Assessing how the asset purchase programs were affecting markets was a very big focal point. The New York Fed and the Monetary Affairs division at the Federal Reserve Board worked together quite a bit on assessing that.

The other dimension was implementation, which fell to the New York Fed's Markets Group. It was a very meaningful challenge to operationalize the program that was buying assets in that size and at that pace. The Fed had never done that before. They had systems to buy Treasury securities, but those systems had never been used so intensively. For the mortgage-backed securities, we had to contract with outside managers to implement those purchases.

YPFS: **When had it been done before? You mentioned asset-purchase programs had been done before but not at that scale.**

Sack: The open market desk in New York had a system in place to buy Treasury securities called FedTrade. It was already operating with primary dealers through that system, but the system hadn't been used on that scale and at that frequency. For mortgage-backed securities, we did not have the systems in place to purchase those directly at the time. That part of the program had to rely on outside vendors for a time.

It may seem as if it would be a simple process to have the Fed buying assets, Treasuries and MBS, at a particular pace and over a particular period of time. But, the implementation of that is complicated. There are operational details, there are accounting issues, there are technology issues, there are vendor contracts, and there are contingency planning and transparency efforts. There were hundreds of decisions to make during the implementation.

YPFS: **As executive vice president and manager of the system, where did you stand?**

Sack: I was in charge of all those operational details. It's the job of the SOMA Manager and of the Markets Group to implement the policy decisions made by the FOMC. We were in charge of implementing the asset-purchase program.

In addition to that, as I mentioned in the beginning, we were very involved in the discussion about how the programs were affecting markets, and, of course, what was going on in the markets and how the programs were being perceived.

YPFS: There was a lot of debate internally about these operations, correct?

Sack: That's correct. The program that had been put in place had been decided on in December 2008 and expanded in March 2009. Both decisions occurred before I arrived. There was a consensus that the Federal Reserve should implement this program and do so aggressively. The FOMC chose a very large size at the March 2009 meeting when it upsized the program. The mindset was that the Fed had to do everything it could to support the recovery, and these programs, as well as the liquidity facilities and other programs, had been introduced very quickly. We continued to consider how the programs were working. That would prove to be important, because the FOMC would later turn to subsequent rounds of the asset purchase program.

My role was to implement and to advise policy makers on the programs and on markets more broadly. I would brief the FOMC on the programs and on market developments. More importantly, I would advise the so-called troika--the Fed chair, the vice-chair, and the president of the New York Fed--on policy calls and discussions that occurred between FOMC meetings. There were a lot of policy discussions- and a lot of work that was done for those discussions- that took place between meetings, which I was part of as a senior staff member. There were specific calls that established the FOMC's decisions to use calendar-based policy guidance, the QE2 program, and the maturity extension program.

As for the asset purchases, they were a new instrument that was going to be used in addition to the federal funds rate. From a policy perspective, it was a fascinating period to think about how that instrument worked and about how it should be used and how to adjust that usage to whatever situation was occurring at the time. That involves a lot of analysis and a lot of work by the Federal Reserve staff in the form of memos to the FOMC, but also in conversations among a smaller set of policy makers who ultimately had to make suggestions to the FOMC.

YPFS: What was the alternative? Was there any alternative? Was this the only tool that would be effective?

Sack: For monetary policy decisions -for influencing financial conditions with the intention of affecting certain outcomes in the economy to accomplish the FOMC's objectives- these were the tools. To this day, the FOMC notes that its tools are “forward guidance” and “asset-purchase programs.” In this period, those two tools emerged and were used in ways that hadn't been used before. Their usage evolved over time during this period, but these were the two primary tools available.

YPFS: Talk about the goal of quantitative easing.

Sack: The goal of the asset purchases was to make broad financial conditions more supportive of economic growth in the U.S. QE1 was launched at a time of significant financial strain. It initially pushed towards more accommodative financial conditions by improving financial market functioning, particularly, in mortgage-backed securities. That market was under strain, spreads were very wide, and asset purchases brought greater balance back to that market, improved market functioning, and helped financial conditions through that channel. That is how I would characterize the very beginning of the QE program.

The rest of the program really worked through what I and others called the portfolio balance channel. Essentially, the Fed, through asset purchases, is pulling assets that investors want to hold out of the market, and so, of course, they will pay more for the assets that remain. In doing that, you push down longer-term interest rates, you push down mortgage rates, and you have knock-on effects to broader financial conditions in terms of making them more supportive of growth. That was the objective.

YPFS: Despite all that, the economic recovery during the years following the great financial crisis was very sluggish. How do you, then, rate the success of that program?

Sack: I would gauge the programs as having been quite successful. You can see that primarily through how they affected financial conditions. There's overwhelming evidence at this point that QE helped to push down long-term interest rates and helped make financial conditions more supportive of growth.

As you noted, the recovery was sluggish. That might have, in part, had to do with fiscal policy. It might have, in part, had to do with the fact recoveries from financial crises just tend to be slow because the financial sector becomes impaired. All monetary policy can do is create financial conditions that are supportive of growth. Judging through that lens, the programs were successful.

It's always hard to define the counterfactual, but if at the peak of the crisis, the Fed had conveyed that it had already done everything it could and had no more instruments available, that likely would have been quite devastating to sentiment and would have led to a much more severe recession and longer recovery. It's hard to judge the programs because the counterfactual can't be observed.

YPFS: **When you look back, could anything or should anything have been done differently? Could there have been more forward guidance at the time or anything else that could have been considered?**

Sack: With the benefit of hindsight, we could have had less trepidation about the costs associated with the asset purchases. At the time, there was a lot of focus on the potential cost. That, at times, probably limited how quickly the programs were implemented and the ultimate size of the purchases. Those concerns were right to have in real time. At this point, we've learned that those costs are quite muted.

It's important to remember that these programs were surrounded by uncertainty and by some degree of angst. When QE2 was launched, it caused quite a reaction in lots of public circles. There were negative comments from politicians, from foreign officials, and from the academic community. There was a petition that was sent to the FOMC by leading academics. It was somewhat controversial. That reflects the uncertainties involved in using a new policy instrument.

It was important to consider the potential costs. But, at the end of the day, those costs were limited.

In terms of their design, perhaps it is surprising that the set of programs ranged from such a large discrete program for QE1-a $1.75 trillion program announced up front- to QE3 -a monthly flow of purchases. The maturity extension program and QE2 were of intermediate sizes. The asset-purchase programs therefore took a number of different forms. In hindsight, we should try to learn about what's the best of those forms and what's the right way to implement them going forward. The practice has landed much more in the direction of QE3 in terms of specifying an open-ended flow of purchases. That was something that evolved over time across the program.

YPFS: **Do you think that the asset purchase programs suffered because of those different forms? Maybe they were viewed as scattershot and created more uncertainty around them?**

Sack: It wasn't that damaging. It just raises the question of what is the right form and what works best. QE1 perhaps was larger and more discrete than it had to be. Maybe there's a benefit of doing something that creates shock and awe in the middle of a crisis. But, it could have been smaller in size with some communication that additional programs would follow, and that approach probably would have worked equally well.

YPFS: **What do you say when people joke about QE to infinity? Is it the result of a series of an incredible set of circumstances in which we no sooner get through a crisis than we're in another one? Or are we becoming too reliant on quantitative easing?**

Sack: The Fed did manage to shrink the balance sheet to what I would've considered normal size by the second half of 2019. The good news is that, even though we had this large, expansive balance sheet during and after the financial crisis, it did return to something that could be considered normal under the new regulatory regime for banks. Although there was a lot of discussion about how many reserves should be left in the system, it looks as if we got to about the right level of the balance sheet and of reserve balances in 2019. Thus, it's not really QE to infinity because the Fed did normalize before we had another shock. This is the pattern one might expect: the balance sheet goes up when you have a severe shock to the economy.

Now that we have had another severe shock, the balance sheet today is quite big. The difference between now and the financial crisis is there's much less room to compress long-term interest rates now. In my view, asset purchases become less effective as the yield curve approaches the zero bound, or the effective lower bound. It becomes harder to push down long-term interest rates.

In that environment, we may need to rely on other tools to stimulate the economy, which brings us to fiscal policy. If monetary policy effectiveness is diminished, it calls for more active fiscal policy as a means for reacting to negative shocks. We've seen a very aggressive fiscal response to the COVID-19 shock, and that's been effective in my view. The question is, does this represent a shift to a regime where we can expect more active fiscal policy in general, or does it reflect the extraordinary nature of this shock? That's an open question still.

YPFS: **What's your sense of the relationship between Congress, Treasury, and the Fed? There's a lot of discussion about whether as a result of the response to the Great Financial Crisis that the Fed is risking its independence and is on a slippery slope. What's your take on that?**

Sack: I'm not overly worried about that. The authorities of the Federal Reserve are clear in terms of what it can do, and it's been an effective structure. The Federal Reserve can affect short-term interest rates, and it can purchase Treasuries and mortgage-backed securities. That gives the Federal Reserve influence over the risk-free yield curve. Under its regular authorities, the Federal Reserve doesn’t have the ability to buy private assets or do other things that would involve it as deeply in the political process.

The authority to do broader lending and buy other assets comes through the 13(3) authority of the Federal Reserve, which has a set of particular requirements and needs the approval of the Treasury secretary. In many cases, it requires some capital from Treasury or some legislation to effect it. In that sense, we could think of some of those actions as essentially the implementation of fiscal policy decisions that the Federal Reserve can help with.

Overall, I don't think an enlarged balance sheet, consisting of Treasury securities that the Fed has bought, really compromises its independence.

YPFS: **I've seen comments where you said you doubt that the Fed's balance sheet will ever fall below $3 trillion again because it’s a framework that is effective and simpler to operate.**

Sack: That prediction, that the balance sheet wouldn't fall below $3 trillion, was part of a debate in the financial community about whether in steady state the system needed a large amount of reserve balances or not. By having a bigger balance sheet, the Fed ends up creating a bigger set of reserves in the banking system. Our view was, the banking system and the financial markets needed a large amount of reserves. Reserves are a very effective asset for the central bank to provide, since they are a risk-free liquid asset that the banking system can use for its liquidity management purposes. And it's essentially costless for the central bank to provide it.

For those reasons, I thought the balance sheet shouldn't shrink too far. The way the market has evolved has eventually proved this right. In 2019, we saw some pressures begin to emerge in funding markets as reserve balances fell, and that happened earlier than people thought.

YPFS: **What are the risks of an ever-expanding balance sheet?**

Sack: Some might argue that with the Fed holding a larger amount of government debt, and with government debt increasing, maybe there will come a time when the Fed feels compromised by the fiscal authority, where it can't raise interest rates because that would be too costly to the government, given the high levels of debt.

The root problem in that argument comes with the level of government debt more than the size of the Fed’s balance sheet. And it involves the Fed becoming compromised in terms of its objectives.

Right now, the objectives given to the Fed by Congress are quite clear, in terms of achieving maximum employment and stable prices. Those goals are legislated, and so they are not easily violated and shouldn't be fragile.

The balance sheet is extremely big now, so it is a valid question to ask what happens from here. I would imagine that we're going to see something similar to what we saw after the financial crisis, and the Fed is not going to keep the balance sheet at this size indefinitely. We'll go through a period where it shrinks the balance sheet back towards a more normal level. But we will have to see if it goes all the way back, as that is a long road to travel from its current size today.

YPFS: **Are you worried about the inflation rate and the ability to manage inflation?**

Sack: It's proven challenging since the financial crisis to bring inflation up. I don't think it's concerning by itself to have inflation running below 2%. The economy functions just fine with inflation running between 1% and 2%. That doesn't keep us from getting to full employment. The new policy framework might let the Fed push the economy to even higher levels of output, or at least probe the production potential of the economy. In some ways, that's a good thing.

What is concerning, if we think about it more broadly, is whether this difficulty with getting inflation up to 2% reflects an underlying lack of control–one that's not problematic when inflation is running at 1% or 1.5%, but would be more damaging if we were to see inflation fall further or see inflation rise quickly.

These instruments affect inflation very gradually over time. That could become more problematic in some circumstances. The Fed, including the framework adjustment that was recently made, is doing the right thing by conveying the importance of that 2% objective and keeping the private sector's perception of inflation centered on that 2%. That's going to help give them the best chance of meeting that objective. But recent history shows the Fed doesn't have perfect control of inflation and it is sometimes hard to move it.

YPFS: **When you look back to the 2007-09 crisis what lessons do you take away from that in considering this most recent crisis?**

Sack: An important lesson is there is tremendous benefit to acting early and aggressively, with all the instruments you have. In that regard, it was quite useful to have a playbook ready as we entered into the COVID crisis, because part of the response of the Fed followed the facilities and approaches that were implemented after the financial crisis. Having been through that once and having developed that playbook proved very effective because those steps could be taken very quickly, and that was quite useful.

During the COVID crisis, there was also a lot of innovation: the direct-lending channel facilities, for example, were steps we didn't take during the financial crisis. Having done those facilities, we can study them and understand them better and that could prove useful in the future.

But the big lesson from the financial crisis is to be prepared and use your tools early and aggressively.

YPFS: **Is that to say in the 2007-09 crisis there was too much of a lag in responding**?

Sack: Some of the steps took time. We talked about the asset-purchase programs, but there was tremendous innovation in terms of liquidity facilities, also. Historically, when people thought about liquidity provision from the Federal Reserve, the focus was on the discount window and dealing with banks. What the financial crisis showed was that liquidity needs are much wider than just the banking sector. We have a financial system that involves a wide range of players. That makes it a very efficient financial system in many ways, but it also makes it harder to address when you have extreme stress emerge.

To the credit of the policy makers and the Fed staff in 2008, the innovations that were made for those liquidity facilities were tremendous. Given the amount of innovation involved, I feel that the Fed actually moved quite quickly during the financial crisis. That's also what proved useful again more recently, in terms of launching a commercial-paper facility, a money-market facility, the TALF (term asset-backed securities loan facility), and so on.

YPFS: **Some will criticize some of the facilities as poorly designed and point to the lack of use as proof while others will argue a facility wasn't used because the steps taken alleviated stress. Where do you come down in those arguments and are those good arguments to have?**

Sack: The amount of usage is not a complete statistic for judging the effectiveness of programs. Putting a backstop in place can be very reassuring to markets and can have tremendous effects even if usage is limited.

Your question may be in reference to a money market facility, the MMIFF, where its design probably was part of the issue. We learned, over time, what works and why. We should keep in mind that these were all incredibly novel and innovative facilities. It was challenging to determine exactly what was going on in markets and what was needed, and to structure these facilities in efficient ways that would prove effective and provide enough security to the Federal Reserve. They were hard to design and the majority of them work extremely well and brought the financial system back from a severe liquidity run.

YPFS: **Is there one facility, in particular, you can point to that was so exquisitely designed that its effects were beautiful to behold?**

Sack: The dollar swap lines for foreign central banks proved to be very important. It was extremely important to recognize the global nature of U.S. dollar and liquidity needs, and to have a tool like that where those needs could be met on a global scale.

The AMLF money market facility was also tremendously important during the financial crisis. That facility took a bit of special design because money markets experiencing runs on liquidity can't take on leverage and couldn't use credit. That facility had to find a way for them to unload the securities, which was done by providing credit to banks so that the banks could then buy the securities from the money funds. That required a more complicated design to address the limitations in terms of the types of firms involved. That proved to be extremely important for bringing stability to the money-market sector.

YPFS: **There's concern that, at some point, the Fed will be bailing out the stock market, and recent rallies in stock performance is the result of people thinking the Fed will buy equities. Where do you come down on that? And does buying ETFs qualify as buying equities in some fashion?**

Sack: It's clear the Fed has the authority to buy only Treasuries and mortgage-backed securities under its normal authorization.

It launched a facility to buy corporate bonds during the COVID crisis under special authorization under 13(3). That decision and that authorization leads to the question of, "Look, could the Fed buy more assets, and could it even support stocks?" But, that's very unlikely. Any narrative in that direction is way overstated. The Fed bought corporate bonds during this period strictly to encourage or support market functioning. They did not buy corporate bonds on a large scale with the intention of creating portfolio balance effects that would compress spreads to an unusually narrow level, nor did they contemplate buying equities to push up broad equity indices. The Fed has been clear about this in its communications about that program, but it's been a point of some confusion in the markets.

One lesson from the COVID episode is that we should think harder about this function that central banks are performing in supporting market functioning. Historically, we've thought about the lender-of-last-resort function of central banks, where they provide liquidity when short-term funding markets seize up. But central banks have increasingly assumed a broader responsibility of stepping into markets that aren't functioning well.

As I mentioned earlier, they had done this at the beginning of QE1, by addressing market dysfunction in mortgage-backed securities. During the Covid crisis, there were disruptions to the corporate bond market. The Fed participation in corporate bond markets seemed to have tremendously beneficial effects because it brought market functioning back to that market. But, the fact is, that was a pretty limited set of purchases and operated very differently than the broad asset purchase programs in the sense that it was really focused on the market functioning aspects.

If central banks are going to serve the purpose of supporting market functioning, it is something that they should discuss and define more clearly in order to shape expectations going forward. Are they always going to be there to support market functioning? Under what conditions will they be there to support market functioning? If they are going to support market functioning, what's the best way to do it? We've seen the Fed do it directly with purchases in corporate bonds, and we've seen them do it indirectly with providing funding to investment vehicles to buy ABS. The support of market functioning has taken different forms, and it would be useful to study more and communicate more on what is the right form.

It does seem like it's a broad area of central bank activity that should be better defined to help set expectations going forward.

YPFS: Do you know of anything along those lines is being discussed or are people pushing for better standards?

Sack: Right now, the narrative is still focused on what happened during this particular shock and how the policy responses worked, and it makes sense for the focus to be on that at this point. I would anticipate that, as we understand this episode better, the focus will naturally move to the broader question of when this function is appropriate and how should it be implemented.

YPFS: What gaps in the system did this most recent episode highlight? Areas that were problems in the last crisis that emerged again? Was that surprising to you?

Sack: Prime money funds showed some instability that looked a lot like what was experienced during the financial crisis. That's a gap that remains unresolved.

It also appears that open-ended mutual funds, particularly ones focused on corporate bonds, perform some maturity transformation that may have contributed to market stress. That still has to be studied to be fully understood. It's an area that warrants attention. Some open-ended mutual funds hold corporate bonds that aren't that liquid, but yet they promise daily redemption to investors. There's some degree of maturity transformation there.

And lastly, there are questions that have been raised about the Treasury market. The issue with the Treasury market is that its size has expanded considerably and perhaps far enough that it causes some pressure on trading and market making in Treasuries when investors have to liquidate those assets. So even though those are completely safe and highly liquid assets, the market may have outgrown its intermediation structure.

That's another area of focus. It's led to an ongoing discussion about whether that market would benefit from a central counterparty arrangement or other structural changes that might support its liquidity in times of stress.

YPFS: What's your outlook for economic recovery at this point?

Sack: This is an extremely uncertain environment. It will be influenced extensively by the evolution of the virus and the progress that is made in both testing and vaccines. It's also going to depend a great deal on the evolution of fiscal policy over the next year. I mentioned before that the fiscal policy response was important, and it really has supported the economy through the amount of income replacement that it's provided to households and businesses. The extent to which that continues and is extended will be critical.

If fiscal policy manages to provide additional support and if we get a vaccine on the timeline as hoped, we could see the economy rebound quite well from Q2 of 2021 on. The near term will be challenging, but I would be optimistic over that longer horizon. But that view is conditional on those factors I mentioned unfolding in that way.

YPFS: Thanks, Brian.

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