Federal Reserve Board Oral History Project

Interview with

Thomas D. Simpson

Former Associate Director, Division of Research and Statistics

Date: November 30, 2005, and December 21, 2005

Location: Washington, D.C.

Interviewers: David H. Small and David Skidmore

Federal Reserve Board Oral History Project

In connection with the centennial anniversary of the Federal Reserve in 2013, the Board undertook an oral history project to collect personal recollections of a range of former Governors and senior staff members, including their background and education before working at the Board; important economic, monetary policy, and regulatory developments during their careers; and impressions of the institution's culture.

Following the interview, each participant was given the opportunity to edit and revise the transcript. In some cases, the Board staff also removed confidential FOMC and Board material in accordance with records retention and disposition schedules covering FOMC and Board records that were approved by the National Archives and Records Administration.

Note that the views of the participants and interviewers are their own and are not in any way approved or endorsed by the Board of Governors of the Federal Reserve System. Because the conversations are based on personal recollections, they may include misstatements and errors.

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This interview with Thomas D. Simpson was conducted on November 30 and December 21, 2005, by David H. Small from the FOMC (Federal Open Market Committee) Secretariat in the Federal Reserve Board's Division of Monetary Affairs and David Skidmore from the Board's Public Affairs office. Mr. Simpson came to the Board in 1976 as an economist in the Division of Research and Statistics and ultimately became associate director of that division.[1]

November 30, 2005 (First Day of Interview)

Professional Background

MR. SKIDMORE. How did you happen to come to the Fed? You probably didn't grow up dreaming about the Fed.

MR. SIMPSON. I did not grow up aspiring to come to the Fed. I was trained as a monetary economist at the University of Chicago, where there was a certain amount of antipathy toward the Fed because the prescribed monetary policy at Chicago was a rule. You just put money supply on automatic pilot, whereas the Fed had been conducting discretionary monetary policy, which was considered to be sinful at the University of Chicago. So I had to overcome a certain amount of resistance.

I was in the academic world, working in the area of monetary economics. I had just completed, or was in the process of completing, a textbook on money [*Money, Banking and Economic Analysis*, 1976]. I was starting to lose my interest in a career in the academic world and was becoming more and more interested in seeing how things are done in the world of central banking. So despite the fact that I had written the textbook, which turned out to be

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[1] Mr. Simpson left the Board in 2006.

reasonably good and fairly well-received, when I came to the Board, I really learned something about monetary policy. I was surprised at how much I didn't know.

MR. SMALL. You came from academia, the University of Chicago, and you did your teaching where?

MR. SIMPSON. Macalester College.

MR. SKIDMORE. When was that, and how old were you?

MR. SIMPSON. I came here in August 1976. At the time, I was probably about 34 years old.

MR. SMALL. So you came with something of a predisposition, from your Chicago training, about the quality of the research and the quality of the policymaking as it was guided by correct principles? Were you concerned on both fronts?

MR. SIMPSON. I always had a high opinion of the quality of the research at the Board. As I worked beyond graduate school and worked in monetary economics, I came to appreciate more the quality of research that was done at the Board.

For monetary policy, I still had some Chicago in me about monetary rules when I got here, believing that there was something important about money: that it was an important variable in the performance of the economy, and that controlling it in a disciplined way was important. Over time my views changed considerably. I think the experience here resulted in some significant changes.

MR. SMALL. Do you remember your sense of the economic conditions at that time, and whether you thought they were in the process of getting out of control?

MR. SIMPSON. For conditions at the time, monetary policy was evolving toward more emphasis on monetary variables, the money stock. The economy was going through a difficult period. It was a period of inflation. Inflation was much higher in the mid-1970s than it had been a decade earlier. Monetary economists would attribute the reason to monetary policy—that it had been too loose and that the discipline that had been imposed by fixed exchange rates early in the period was starting to be relaxed. There was a need for some other approach to guide monetary policy. The Fed was at least paying lip service to the role of the monetary aggregates, and outside the Fed, in the Congress, there was more emphasis being placed on the Fed's being held accountable for monetary growth.

We had been through a period of price controls, which had held down inflation temporarily and when they came off, prices jumped. Then we had the oil-price shock of the early 1970s, and that was working its way into the price level. There was some disagreement about how important that was as a contributor to overall inflation, much more so than there is today. Today there's an appreciation that it was an important event. A lot of monetarists at the time, including myself, were downplaying the role of the energy shock as a factor contributing to inflation and were emphasizing more monetary mismanagement.

Board Culture

MR. SMALL. At that time, in academics, there was a debate between monetarists and Keynesians. When you came to the Board and met your colleagues and the younger staff, did you find an array of monetarists here who were similarly concerned with these issues, or was the staff more Keynesian? What type of intellectual comrades did you have?

MR. SIMPSON. There were differences in views, but there was a great deal of tolerance toward alternative views, and there were not people at the extremes. As I look back, this institution did not attract, for one reason or another, extreme monetarists or extreme Keynesians. Most people who came to the Board were interested in getting to the bottom of things and weren't being heavily influenced by economic ideology, as it were, although there were certainly different views. Some people would make fun of monetarists, and there were monetarists who would make fun of Keynesians, but it was done in ordinary conversation, kind of glibly. It was all taken in stride.

Even though there were different views, they were not somehow divisive, and I don't think they interfered with the kind of work we did. We were looking for a paradigm that would explain things—whether it was more monetarist or more Keynesian or some kind of blend—we ended up with something that was a blended, neo-Keynesian world in which monetary variables play an important role.

MR. SKIDMORE. Would you characterize not just the monetarist–Keynesian split per se but the intellectual culture at the Board then and now as a diversity of views and a tolerance for diversity of views and, at the same time, a lack of extremism?

MR. SIMPSON. I think that continues to characterize the culture of the Board.

MR. SKIDMORE. Apparently it goes back to before you were here. What has kept the Board that way? Why do you think that element of its intellectual culture has persisted?

MR. SIMPSON. In part it's the selection process. It's selective on the part of individuals who come here. They're looking for that kind of environment. To some extent it's recruiting, too. One thing that characterizes work on the economics side at the Board is teamwork; so people are selected, whether it's a conscious or a subconscious decision, based on their willingness to be a part of a team.

It's probably more subconscious than conscious, but I think there has been a long-standing realization that we're much more effective in serving the Board by working as teams. One of the pleasant surprises for me here at the Board was coming from the academic world where you think that people are pursuing truth and that's the ultimate goal of everybody; and politics, ideology, and so forth are secondary. The view I had was that in a governmental institution a lot of political things dominate the agenda. It was just the reverse! I found that I came from a highly politically charged academic environment that interfered with good dialogue, honest dialogue, on controversial issues, to one in which everybody realized that we had to provide the best guidance, the best analysis, to the Board on policy issues. This meant that we couldn't be wedded to any particular set of views or model unless that model did a good job of explaining the world and the principles underlying the model made economic sense.

In that sense, we've all been willing to change our minds as evidence pointed in one direction or another, and it didn't make much difference whether innovations in thinking were coming from within the Federal Reserve or from outside. If there was a better mousetrap, it would get more and more attention. If you look at the way in which we forecast and at the way in which our models are built, they've changed a great deal as the profession has changed. They've changed in that they do a better job of explaining and forecasting the world and they make more sense than their predecessors.

From the standpoint of intellectual stimulation, if you're interested in monetary policy issues and banking structure issues, this is a lively place. That's the reason the Board, on balance over this period, has been successful in recruiting and retaining good people.

The Board has also been a good training ground for those who are seeking more remunerative positions outside. If you look at the big names on Wall Street, people who get cited in the *Wall Street Journal* about economic developments, Fed policy, and so forth over the past quarter-century, I think you'll find that the Board was probably better represented than any other place as a recruiting ground. The New York Fed, too, has sent a lot of people out to the financial world; but I think, by and large, that the Board has been a better source for the industry.

It's been somewhat episodic, too, because developments in the late 1970s, early 1980s—the globalization of banking markets, the rapid growth of the government securities market—led to more demand for people with Board experience. Everybody wanted to be a dealer in government securities, including foreign banks ramping up their U.S operations. If you were going to be a dealer, you needed to have somebody who could help you figure out the things that were going to influence the direction of bond prices and affect financing costs. You had to know something about the Fed, how the Fed operated, and how all these principles interacted. The best training ground in this area was the Board. The New York Fed has been good, but I think the Board has been, over time, a much better training ground.

MR. SMALL. I'd like to pick up on your thought about the Board being a training ground. You discussed it as leading to Wall Street. But how did it serve as a training ground for your colleagues, during your early years, in leading to higher positions in policymaking at the Federal Reserve and the Reserve Banks? Was there a sense in which young economists saw inflation get out of control, maybe how easy it was to let that happen in the first place or maybe how hard it was to take out? Do you think the lessons learned by the young staff struggling with their models, struggling with the theories, served them well later on as they moved into policymaking positions?

MR. SIMPSON. Oh, absolutely. There was a generation—of which I guess I am a part—that cut its teeth, professionally, during the inflation period of the late 1960s and the 1970s. There were people outside the Fed as well as people inside the Fed who were keen observers; they realized and understood the mistakes that were being made during that period—

in part being sluggish in responding to a buildup in inflationary pressures and allowing the inflation situation to get out of control in the process.

You can look at people who have been policymakers. Some fairly prominent people have come up through the Fed: Robert T. "Bob" Parry, who has been president of the Federal Reserve Bank of San Francisco; W. Lee Hoskins, who was president of the Federal Reserve Bank of Cleveland and was at the Philadelphia Fed; Jerry L. Jordan, who had been president of the Cleveland Fed and earlier in his career had been at the Federal Reserve Bank of St. Louis. Bob Parry had been at the Board. Edward M. "Ned" Gramlich, who became a Governor, had been on staff here at the Board. And we have Donald L. "Don" Kohn, formerly on Board staff and now a Governor, who was an astute observer. I think that it is fair to say that all came to believe in the importance of reducing and holding down inflation.

The experience of the inflation of the 1960s and 1970s created a certain resolve by those who came to take on an important role to play as policymakers, or as assisting policymakers, that this was an experience that we would not want to repeat. Getting inflation down and holding it down was extremely important. Once you let the cat out of the bag, so to speak, and let inflation pick up, it's hard to put it back in the bag—and very painful.

The best example of that was what happened in October 1979, when, under the new Chairman, Paul A. Volcker, the Fed decided to become aggressive in attacking inflation. It was not a pleasant experience for anybody in this institution. Certainly for a lot of people outside who lost their jobs, lost their businesses, got clobbered in the stock market, it was a painful process. But experience has shown that achieving low inflation, as the result of the efforts that were made starting in October 1979, has contributed to one of the best economic periods we've had in the postwar period.

Early Projects at the Board

MR. SMALL. Looking back at some of the initial projects that you found yourself being involved in at the Board, were there any that you felt would not be interesting or important that turned out to be so?

MR. SIMPSON. The biggest challenge for me in the first year or two that I was here was doing current analysis. The research work that I undertook at the Board did not pose any special difficulties; I was using research methods that I had been developing as a professional economist. But the current analysis was a major challenge—not being able to deal in the idealized world but having to take a bunch of information from various sources and make sense out of it. It involved knowing your data, and it took a while to learn how these data were constructed—methods of seasonal adjustment, errors in seasonal adjustment, and so forth. Trying to pull it all together in a coherent manner, and from this information tell a convincing story, I found to be a big challenge. After a while, like anything else, you get a knack for doing it, and I hope that I have been able to do current analysis steadily better over time. But I was really surprised. In fact, my first section chief gave me some other assignments, and he said he wanted to take me off for a day or two to write the Greenbook. I started and tried to get all the details and make sense out of it in a couple of days, and I was really frustrated. I don't think I did a good job the first time. But I think I learned.

Today we're much better prepared in developing people to do these kinds of jobs. You don't throw a new economist into that kind of work, regardless of whether or not they've had some experience elsewhere. You have a learning program, a development program, for this kind of work. You let them look over the shoulder of somebody else and ask questions. They prepare shadow drafts that get critiqued before they are given the job fully. I think we're much better in developing those kinds of skills within the Board today.

One of the first projects I had was to evaluate an econometric study that was being done by Robert E. "Bob" Weintraub, who was working for the House Banking Committee. He had developed a reduced-form model, and it had a lot of flaws. There was a certain sensitivity to it. I was asked to do a critical evaluation of the Weintraub study. It was fraught with problems that similar studies were fraught with, and his results were questionable. Moreover, his conclusions were not complimentary toward the Fed—the role of the Fed—and the unfortunate developments of the 1970s. It was based on a methodology that was questionable. It was sensitive because Bob Weintraub worked for our oversight committee in the House, and it was thought that, if we were to do something that would somehow provoke him, he could make life a whole lot worse for the Chairman and for others at the Fed.

MR. SKIDMORE. Is this the Wright Patman thing?

MR. SIMPSON. No, this would have been post-Wright Patman; this was Henry S. Reuss. But there was continuity in the sense that Reuss had certain populist leanings along the lines of Wright Patman, though he was from a very different part of the country.

MR. SKIDMORE. Wisconsin.

MR. SIMPSON. Right. Patman had been from Texas. But they still shared that kind of populism and that suspicion of financial institutions, their regulators, and the conduct of monetary authority. They were not monetarists, but they attracted monetarists. And Bob Weintraub was a predecessor of mine from the University of Chicago. He had gone through Chicago before me and had been at various academic institutions, but somehow he was attracted to the House Banking Committee, perhaps because it was always looking for things to criticize about the Federal Reserve. Bob Weintraub was also a reasonable person. Before his untimely death, I had developed a good relationship with Bob. When I finished the paper, I had it reviewed here by colleagues knowledgeable in the area, and they liked what I had done. Then my supervisor said we owed it to Bob Weintraub to share this with him so that he didn't repeat the same mistakes. My supervisor said, "Why don't you schedule lunch with Bob," which I did. He said, on the side, "Just hand him a copy of your paper." I did that, and Bob was very appreciative. I think we had a good relationship after that, until his unfortunate and untimely death.

Bob was influential. He was probably the most influential person, other than a member of the Congress, behind the Full Employment and Balanced Growth Act of 1978. He was trusted by members of the House, and it was his recognition of the weaknesses in the statutes at the time that resulted in that legislation, which was our guide, and in some respects still is our guide, although the role of the monetary aggregates has changed as times have changed.

MR. SKIDMORE. When did he die?

MR. SIMPSON. I think it was the late 1970s, not too long after that legislation. So that was one of my projects.

Measurement of the Money Stock

I had another interesting project. It was the payment of interest on demand deposits. Since the 1930s, banks were prohibited from paying interest on demand deposits. They still are prohibited on regular demand deposits.[2] But during a period of high inflation and high interest rates, people were finding all kinds of ways to economize on demand deposits and to get around

[2] Editor's note: On July 14, 2011, the Federal Reserve Board repealed its Regulation Q that prohibited the payment of interest on demand deposits by institutions that are members of the Federal Reserve System, implementing Section 627 of the Dodd–Frank Wall Street Reform and Consumer Protection Act of 2010.

these restrictions, ways that were making it more difficult to conduct monetary policy. A long-standing recommendation on the part of particularly the monetarists, but others as well, was that those prohibitions should be removed.

Under the leadership of Stephen H. "Steve" Axilrod, who was, at that time, the head staff member on the monetary policy side, a small group of us worked on the study of payment of interest on demand deposits. I had developed a certain familiarity and expertise with a data set called the Functional Cost Analysis, which was being collected within the System, mainly for operating purposes. We found that it had a research value, so I was using it. Since I had developed some familiarity with that—and I guess Axilrod thought that because I was trained at Chicago as he was, therefore I must know something about this issue—I was asked to participate in that project. We prepared a report—I think it was released in 1977—which in retrospect was pretty important. There had been NOW (negotiable order of withdrawal) accounts in New England, primarily in Massachusetts. These were retail checking accounts that paid interest. The question was whether that experience would suggest that we could seriously entertain allowing NOW accounts at the national level.

Our study looked at that from various dimensions. It was a staff study. It was reviewed by the Board. At that time, our Chairman was Arthur F. Burns. I think he was skeptical of the study, but he recognized that the staff had done a pretty good job, and it was important for the Federal Reserve to weigh in on this issue, so it became a study that was released. It wasn't a staff study in the sense that other, more formal, staff studies were; but it was made available on request and I think it influenced thinking about this issue and played a role in the introduction of nationwide NOW accounts. Over probably two or three years, it was the most important document in this area. So that was another interesting project that I got involved in.

In 1971, we left the Bretton Woods system, which fixed exchange rates. In a sense, we had been cheating on the system before that time. We weren't playing by the rules and weren't allowing the discipline of that system to dominate monetary policy, particularly when it went in the direction that was adverse to the near-term performance of the economy. But there was recognition, too, that after Bretton Woods the Fed needed some kind of anchor to conduct policy, something that would prevent inflation from getting worse, and would ideally get inflation down.

Meanwhile, the monetarists were coming up with lots of research findings suggesting that money was a kind of guide that could be helpful. There weren't many other ideas on how to conduct monetary policy. Just about everybody, at that point, thought that the Fed should be paying some attention to money. The monetarists were saying the Fed should straightjacket itself. It should select the right rate of growth of money and stick to that regardless.

Others were saying that the Fed needed to have a little more discretion, that underlying good monetary policy would be a predictable velocity of money—that is, preferences of the public for holding money vis-à-vis overall income or spending would be predictable. If that's the case, you may or may not want a rigid monetary rule. To the extent—and we're getting into some details here—that velocity was stable and didn't move a whole lot in response to interest rates and other economic variables, then you could follow these more rigid rules. But to the extent that it varied some, then you wanted a little more scope to adjust those growth rates, depending on how you thought velocity was going to perform.

There were some differences of opinion, but there was a general recognition that the Fed should be paying more attention to money. The Congress, through the House Banking Committee, and also Senator William Proxmire in the Senate had some inclination that the Fed should be held accountable for money. The nation should be holding the Fed accountable for money growth and should be asking the Fed to set the right rate of money growth to hold down inflation. Legislation in the mid-1970s required that the Fed announce objectives for money growth. The Fed ended up changing those every quarter. It was a moving target, and it was hard to hold us accountable. There were questions about definitions of money, and there was a proliferation of definitions of money. One of the criticisms of the Fed was that the Fed chose its monetary aggregate depending on what was the most favorable under those conditions and allowed it the most scope to do something else.

MR. SKIDMORE. I understand it was five.

MR. SIMPSON. I think there was more than that. In the Flow of Funds Accounts, there was one—I think it was M8. Arthur Burns was asked before the Congress which measure of money he followed. He mentioned M8, and everyone went scrambling to find out where M8 was, and it was only in the Flow of Funds Accounts.

What was happening during this period, too, was the recognition that the Ms that we were using had flaws. The Board established a commission to study the definition of money. That commission was headed by George Leland Bach; he was a prominent monetary economist from Stanford University who was well-respected by just about all people in the field. Among the members of that committee was Milton Friedman. They came up with a set of recommendations on how to measure money, and that served as a guide for our work at the Board.

The financial system was changing rapidly, so it was an open question about what the definition of money should be. In the late 1970s, the Board decided that it needed to do something. Steve Axilrod, being the chief staff person in this area, put together a small working group to address this particular issue. I became the staff coordinator for that group, being accountable directly to Steve Axilrod. We were approaching the issue from various perspectives. Conceptually, what's the right measure of money? In practice, what seems to fit the data the best, taking into account the limitations of our statistical methodology?

In 1979, we came out with proposals for various measures of M (money). That was published in the *Federal Reserve Bulletin* in 1979, and we asked for comments. We asked for comments from people in the academic community as well as the more operational people in the business community. The Board held a couple of meetings with people outside the System and held meetings within the System as well. The FOMC had a meeting to discuss the content of the aggregates. There was a predisposition on the part of Board staff for a narrow measure of money, M1. Milton Friedman, and a lot of Friedmanites, had argued for a broader measure of money, at that time M2—a very different M2 than the one we use today: It was focused on commercial bank deposits and didn't include deposits of nonbank depository institutions such as credit unions and savings and loans.

There were differences in views on narrow versus broad money, and there were questions about what should be in a narrow measure of money. NOW accounts, particularly if they go nationwide, are interest-earning checking accounts. Aren't they perfect substitutes for regular non-interest-earning checking accounts? I think most people agreed there, and the Bach commission was supportive of expanding the definition of M1 to include NOW accounts. There was a raging issue, and I was part of the debate, on these overnight repurchase agreements (RPs) and whether they were money. Dave, a former colleague of yours, Donald D. "Don" Hester from the University of Wisconsin, who had spent some time in residence at the Board, used to make the statement that RPs are RPs at night and demand deposits during the day, and they function just as demand deposits. It was a persuasive argument.

In this era, in which everybody was trying to figure out a way around inefficient regulations, it was clear that commercial banks and their customers were trying to find ways to perform transactions other than by holding balances in these non-interest-earning demand deposits. We did quite a bit of study here. I was part of a group that was looking at RPs even before we got serious about redefining money. I came to the conclusion that RPs shouldn't be in M1. Steve Axilrod was not fully persuaded. Most of the Reserve Banks wanted to include them in M1. This was a burning issue at the time. A number of outside observers, too, had said that they should be in M1. In the end, they were excluded from M1 but included in the broader measures.

MR. SKIDMORE. At the time—the late 1970s?

MR. SIMPSON. This would be 1979. Then, in 1980, the Board came out with its current measures of the money stock. They've been modified somewhat, but the basic structure of the current Ms was determined by the Board in 1980.

Steve Axilrod should get a lot of credit for this. He saw to it that all the tools that one could bring to bear on the issue were utilized. He saw to it that the Board was well informed and involved. He saw to it that the outside community, the experts, had an opportunity to look at the evidence we had come up with, the arguments we had made for the various proposed definitions, and to comment on them. There was feedback from the outside world. There was feedback from the Reserve Banks. As a result, some changes were made between the original proposal in 1979, and the final set of aggregates adopted in 1980.

I would point out—and this is germane, Dave, to your question—we had proposed two aggregates: M1 and M2. We had a member of the Board at the time, Emmett J. Rice, who had come from the banking world, having worked at a Washington, D.C. bank, who argued for including large managed liabilities in the broad aggregate. The big difference between an M2 measure and a broader measure were these wholesale-type deposits that were managed liabilities. He argued that CDs, the main component here, were like other deposits. So the other Board members said, "Why can't we have an M3 as well that would include these? We said, "Fine, if you want an M3." So M3 was added at the end.

From my perspective, the debate, at least the professional debate, was what should be in M1. We succeeded in not including RPs in the end, which I think everyone in retrospect would say was the right decision. Ironically, M1 was discarded not too many years afterward because it was no longer a useful aggregate. From our standpoint, it was either M1 or M2. We weren't really too concerned about anything beyond that. There were advocates for an even broader measure, which was liquid assets, so we came up with this even broader measure that we called L. We tried to come up with a constellation of aggregates that would please a wide range of people.

The other thing we tried to emphasize with the redefinition was that we were going to be publishing the components. We were going to make them readily available. If you believe that M1 should include RPs, then RPs are going to be right there to use. You can add them into your aggregate, and you can write a column about your aggregate, or you can write a research article or whatever you want to do, easily. Or at least you can access the data easily. As Peter Tinsley said, we were going to provide the opportunity for analysts "to roll their own" if they didn't like what we came up with.

MR. SMALL. We're now talking about 1979 and Paul Volcker. Going back to the period 1971–79, after Bretton Woods, you talked about interactions with the congressional oversight committee. Could you comment on what you perceive as the staff perception at the time of the congressional committees and what their role and influence was? What were the hindrances then and maybe now? Looking back, were the committees helpful in guiding the Board or did they constrain the Board?

MR. SIMPSON. In monetary policy, there was a lot of tension, and it was more of an adversarial relationship. I don't think the Fed was showing an adversarial attitude, but I think the Congress, particularly the House, was, and for a long time. I don't think it's nearly the case today that it was back then. Even in the early 1990s, there was more of an adversarial relationship.

MR. SKIDMORE. Representative Henry B. Gonzales was the chairman.

MR. SIMPSON. Right. Bob Auerbach was a key staff member. Bob was a classmate of mine at the University of Chicago. He had gone to work at the Kansas City Fed and then left there to go to the academic world. It was said that he had a chip on his shoulder toward the Fed. I don't know whether it was really born at Chicago or whether it somehow developed at the Kansas City Fed, or something else caused this, but he knew enough to help Gonzales come up with nettlesome kinds of requests or arguments. I think this tension and adversarial relationship has dissipated. Now, who's to argue about monetary policy? People nibble at the edge, maybe, whether the Fed's moving fast enough or moving too quickly, but other than that, basically everybody's saying that the Fed's doing a good job. There's nobody in the Congress who's out front criticizing us. But in those times, economic conditions weren't quite as favorable.

Fighting Inflation and the New Operating Procedures

MR. SMALL. Do you remember any of the precursors to the October 6, 1979 FOMC meeting? Was the move unilateral by Volcker or did it involve other people? Was the intellectual foundation laid previously? What support or resistance did Volcker get from elsewhere in the System?

MR. SIMPSON. There were very different views on the FOMC about the role of the monetary aggregates. There were those like Lawrence K. Roos of the Federal Reserve Bank of St. Louis, who felt that the Fed should be following some kind of rule and should be using reserves to control growth of money. Then there were people at the other extreme who thought that money should play only a limited role. You should look at money, and it might influence your thinking about where things are headed and where they should be headed. Then, there was a wide range in between.

But the real problem was inflation. Inflation was getting worse, and confidence in U.S. economic leadership was deteriorating. Indeed, it had been deteriorating for quite a while. If you look at the public opinion polls of that time, national problem number one was inflation. The year 1979 was not pleasant. Prices were performing badly. The Fed was responding by increasing interest rates. But a lot of people, a lot of monetarists, would say that the Fed was not following the right procedures to control money, and the Fed was "too little, too late," and was allowing inflation to continue to pick up.

Within the institution, there was a sense that the Fed had to do something. But under the previous Chairman, G. William Miller, a lot of people thought not enough was being done. If you look at the transcripts of the FOMC during that year, you'll see that the president of the New York Fed, Paul Volcker, was becoming more vocal on this issue and was arguing for more aggressive measures. Even though I don't think he had any kind of intellectual commitment to monetarism—he was somewhat skeptical of monetarism—he came to realize that maybe that's the way we have got to go, to place more emphasis on controlling money as a way of getting inflation under control. Well, G. William Miller was appointed by President James E. "Jimmy" Carter to be Treasury Secretary, leaving the post of Chairman open. The financial markets wanted only one person in that position, and that was Paul Volcker. I think they had come to appreciate that—during his previous experience at the Treasury and what they saw from him at the New York Fed—he was somebody who could be trusted and was competent to get the job done. Volcker became Chairman in August 1979, with this horrendous problem staring him in the face. It wasn't clear what kind of support he was going to be getting from his colleagues. I think he understood the Board because he worked with the Board on FOMC matters, but I'm sure he was aware that he would not have a uniform group that would support him in taking more aggressive action.

He raised the discount rate in August. He was able to get a discount rate hike through. But as I recall, the vote was 4 to 3.[3] Discount rate actions at that time, as today, were announced right afterward, with the vote. So the whole financial world knew that it was a close vote. Here's this new Chairman, he's taking a moderate step toward lowering inflation; but he's almost stymied in his first effort. Is he was going to be able to accomplish anything else? I think there was a question about whether he was going to succeed.

As the Fed had been raising interest rates, many observers—especially the monetarists—were saying that policy was not really tightening because inflation was going up at the time and it was not clear that there was any bite to what they were doing. There was, however, concern among some members of the FOMC, particularly the Board members, that this policy was going to put the economy into a recession, particularly if there were many more interest rate hikes. There were some indicators to suggest that the economy had slowed. As we moved from the

[3] Editor's note: The Board voted unanimously to increase the discount rate from 10 to 10½ percent on August 16, 1979. On September 18, the Board voted 4−3 to raise the discount rate from 10½ to 11 percent.

summer into the early fall, everybody was concerned about inflation, but there were those who were also concerned about a weak economy and rising unemployment.

Volcker understood monetarism pretty well. He understood that, if the monetarists are right and there's a stable relationship between money and the economy, if the economy remains fairly solid and inflation is getting worse, interest rates are going to rise if you control the money stock. That's going to slow things down and cool off the economy some. It will take some of the froth off inflationary pressure.

On the other hand, he realized this was symmetric. If those who are really worried about the economy sinking into a recession are correct, then, if the monetarists are right, money will get weak. The Fed will have to resist that by lowering interest rates to get money stimulated again, and that will provide an offset.

He did a good job of selling the need to control money through new means—not through the federal funds rate, as they were trying to do, which for the most part kept them behind the curve. Instead, he convinced the FOMC to control money more in the monetarist way. Interestingly, the monetarists later argued that what the Fed embarked on was not really monetarism.

MR. SKIDMORE. There's a sense in popular literature, such as *Secrets of the Temple: How the Federal Reserve Runs the Country*, that the move to targeting the Ms in 1979 was a fig leaf for whacking the economy in the head to kill inflation. You mentioned that you didn't think that Volcker was intellectually committed to monetarism, although he understood it well. What's your sense about what his thinking, or the thinking of the staff, was on what the Fed was about to undertake in the switch to targeting the Ms? How much of what was said in public represented what was thought and said in private within the institution?

MR. SIMPSON. Since I did not deal much one-on-one with Volcker during this period, I can't tell you what was on his mind. I can only infer, based on what I would hear from senior staff members, that there was a recognition that interest rates were too low. Real interest rates were not that high at all. With 13 percent inflation, interest rates were, as I recall, negative at that point.

MR. SKIDMORE. Did they anticipate that they were going to raise interest rates to 20 percent?

MR. SIMPSON. No. There was some question about how high they would have to go, but there was a recognition that they had to go higher—not by small increments but by quantum amounts. Whether that meant going from the 10 percent area to 14 or 15 or 18 was an open question. There was a recognition that, if you targeted money and things were working properly, interest rates would find the level that would be needed to bring inflation down. Originally, I thought that was probably the fig leaf. But as I've gone back and looked at the transcripts, I think it was more an appreciation that this is the only instrument we have available; this is the only approach we have that's going to be viable in bringing inflation down. It may be a crude instrument, but it's better than none. And it did allow the Chairman and the FOMC to say, "We don't set interest rates; we set objectives for money growth." They were able to distance themselves a bit from the level of interest rates.

MR. SKIDMORE. The link that you mentioned—that the first discount rate vote was close—there were questions about how much influence the new Chairman would have within the institution. What role did that switch in strategy have? I'm alluding to the role ahead in explaining to the public what the Fed was doing and perhaps reviewing the political consequences. What role did it have within in solidifying the support?

MR. SIMPSON. The problem here was with what you might call the "doves" on the Board and the FOMC. The Board had a disproportionate number of doves at the time. But Volcker was able to explain, "I'm going to play this game fair. If we're going to a monetary target, I'm going to play it fair. And that means that, if interest rates have to rise to 15 percent or maybe even beyond, that's where they will go, unless we see good reasons to believe that will cause too much damage. If your worries about a weak economy materialize, I'm going to see that it's symmetric and that we allow the system to counter it, unless there would be strong, compelling reasons not to." I think that's what he did.

There was also a view that Volcker "got religion" at an IMF (International Monetary Fund) annual meeting in Yugoslavia—in Belgrade. He went there, and all his foreign counterparts were complaining about the Fed, and the Fed had to get tough. He got an earful of that and decided he had to go back to Washington and do something. I can assure you that was not the case. A lot of work had been done before he left. I was part of the group that worked on the preparations for October 6.

There were three prongs to this policy. One was the discount rate—and that was a straightforward thing. You can do some analysis of how much you should do, and there was uncertainty about how much, but they ended up doing an unusual amount of 100 basis points. That didn't require a lot of staff work.

The second was marginal reserve requirements. There were those who were focusing on credit and were thinking that the banks were issuing too much credit. Steve Axilrod, I guess with the Chairman's support, wanted to look at marginal reserve requirements on managed liabilities. The idea was that we were not going to hit institutions with the reserve requirements on what they held then because the requirements are burdensome. But if they continued to expand their balance sheets, they would need to get the funds, and we put a marginal reserve requirement on those additional funds. That added to the cost and was a signal to them, too, that we wanted them to be cautious in granting credit. I was the key staff person behind trying to measure in advance the managed liabilities at the larger banks to get some sense of how big the base would be for this new reserve requirement. That was the second piece, and it was to respond to those on the FOMC who thought that we needed to be focusing on controlling credit.

The third piece—the one that Steve Axilrod had primary responsibility for—was the new reserve-based means of controlling the money stock. It was a particular challenge given that we had lagged reserve requirements. I had just published with a colleague an article on reserve requirements that appeared in the September 1979 issue of the *Journal of Financ*e. In a footnote, we placed a statement that one wouldn't want to use a reserve-based approach to controlling the money stock with lagged reserve requirements. They were an impediment to effective monetary control. But Steve, with the assistance of Peter D. Sternlight from the Federal Reserve Bank of New York, came up with an ingenious way of imposing a reserve-based control mechanism with lagged reserve requirements. Moreover, it worked pretty well. That was the critical piece of this whole operation.

Before Volcker left to go to the IMF meeting, the Board had a meeting to discuss these possible approaches to a package to address inflation. A few days later, I was here at the Board on Saturday working on my piece of the package. I happened to be in Steve Axilrod's office that afternoon to discuss the project when he got a phone call from Volcker. He was calling from one of the Air Force One planes. He had been in Frankfurt, meeting with his counterparts at the Bundesbank and was headed for Belgrade. He wanted to get a status report on where things stood.

Steve Axilrod and Peter Sternlight were there. I thought it was comical because they recognized that they didn't have a secure communications system. They were trying to talk in code, and I think there was a lot of misunderstanding. Volcker's voice was breaking up so you didn't get everything that he was saying, and I don't know how much he was getting of what Steve was saying in response. But clearly things were well under way here for those measures.

MR. SKIDMORE. When was that?

MR. SIMPSON. I think it was September 29, a week before, Saturday, October 6. It was exactly a week before the FOMC met. The FOMC was scheduled to meet about a week and a half after October 6. At that time of October 6, we were preparing for the FOMC meeting. We were writing the Greenbook and doing all the things we do before an FOMC meeting.

October 6 was a fairly notable day because across the street from the Board was a more prominent event—at least to most of the public. The Pope was in town. In retrospect, I think he provided a lot of cover for the FOMC because if somebody had been walking on the street on a deserted Saturday and happened to see these people dressed up in suits and happened to have had any savvy about who these people headed for the Board might be, they would have attracted some attention: "Ahh, something's going on there!" And they would have created a lot of speculation. But the Pope was here, and the whole area was a mob scene. All the attention was being focused across the street—the area around Constitution Gardens, where the Pope came down in a helicopter. They were able to conduct their meeting without anybody being aware of what was going on.

A press conference was held afterward to announce the results. It was earth shattering, and it was clear: The monetary aggregates were taking on a role that they never had taken before. This was the closest to a monetarist experiment that has ever been undertaken around the globe.

MR. SMALL. Before we get into the consequences of that decision, were there any unsung heroes—people to whom Volcker turned for support or who provided him with support in the institution, the Reserve Banks, the Congress, the Administration—or was he out on his own?

MR. SIMPSON. I think this was his brainchild, primarily. What he needed was supporters. He did an effective job of building a coalition on the FOMC and the Board. But, in the end, one of the unsung heroes was the Vice Chairman at that time, Frederick H. "Fred" Schultz. Fred Schultz had spent some time in banking, but his most notable accomplishment was in 1976—he was Jimmy Carter's campaign chief in the state of Florida. He was appointed to be the Fed Vice Chairman in July 1979. A lot of people looked upon this appointment as his reward for being a good political loyalist. But he surprised a lot of people. He was bright and a quick learner. I think he realized that the nation's well-being was at stake here, and once you go down this road you can't turn back. You've got to keep fighting until, so to speak, you see the whites of their eyes—that is, until inflation is really down.

Volcker lived in New York before becoming Chairman. His wife had a job up there, and she was evidently happy in her job. They had a son who had some serious health problems, and they were getting good medical attention in New York. When he came down here, he got an apartment in Foggy Bottom. We had a staff member, Betsy Fogler, who had an apartment in the same building. She used to see him all the time. When he could, on weekends, he would go up to New York and spend the weekends with his family. But otherwise, he lived out of this little apartment.

He was living alone and came into a Board that was not, at least at the outset, totally comfortable with his thinking. He was somewhat isolated at first, but I don't think it took Fred Schultz long before he realized that he needed to be in the Chairman's corner and support him in every way possible. I think he did a critical job providing support when it was needed most.

MR. SMALL. Was there a sense of providing support with the connections to the Carter White House?

MR. SIMPSON. At this point—October 1979—there was still another year that they were in office. I don't know to what extent he was providing a buffer. The Administration wasn't happy. Volcker informed them in advance of what he was planning to do—or what he thought the FOMC was going to do. But while I don't think there was a lot of enthusiasm, they reluctantly went along. This was a grave national crisis that needed to be addressed, and they did not want to get in the way of a promising program for addressing it. They had selected him as the Chairman. He had support in the financial community, and I think they sensed that, if they were to resist or appear as if they weren't supporting him, this would have a detrimental effect on national and global markets and work against everyone's interests.

MR. SKIDMORE. Can you think of a concrete way that Schultz provided support or a particular moment when that support was crucial?

MR. SIMPSON. I'm sure there were incidents from the tone of his comments, the way he addressed other members of the Board, and the way he referred to the Chairman. I know he was in the Chairman's office a lot, probably more than most Vice Chairmen, during this critical period. Eventually other members of the Board fell in line because they were way out there on a limb, too. I think they were all uncomfortable. There were daily reminders of how difficult life was out there beyond DC. One of those reminders was the postal delivery. Each day, the mailmen would come with big bags of 2x4s, each with a message from somebody in the construction industry asking them to relent.

I remember getting a phone call from Catherine Mallardi, who was the Chairman's secretary. This may have been about 1981, so it was well into the process. She said, "I have a gentleman on the phone who wants to talk to the Chairman. The Chairman's busy. This man has a business; it's about to fail. What he really wants is to have somebody at the Board listen to his predicament. Would you be willing to talk to him?" I said, "Sure." The man got on the phone, and he gave me his name. He owned a barge company on the Mississippi River. He said, "I've been in business . . ." I don't know how many years—a very long time. He said, "I've been through good times and bad times, but I've never been through anything like this. I realize that what you folks are doing is probably the right thing. But I just want you to know that the rest of us are experiencing a lot of pain as a result of interest rates." He was paying prime plus, and that was well into the 20 percent area at the time. He said, "I can't meet my obligations. I'm going to have to default on my debt, and give up my business. I just wanted somebody at the Federal Reserve to hear my story." He went on for maybe 10 or 15 minutes describing his plight.

That was not an isolated incident, and my guess is that what I heard from that man that day was being heard more regularly by members of the Board. There were lots of people going into the Chairman's office with that same message. Fortunately, the new Administration, the Reagan Administration, stayed out of the way and was generally supportive of this anti-inflationary policy. It was starting to produce results. For the most part, the Congress stayed some distance away until—and I remember this vividly—the 4th of July recess in 1981. When members of the Congress went home, they got an earful from their constituents. The message was "enough is enough." We have suffered enough, and the economy needs to be turned around quickly. And they came back arguing for relief in monetary policy. The Chairman had a tough judgment call; had the FOMC completed its task, and could an easing process begin without giving up the very hard-fought gains on inflation? Easing too soon could give the impression that the Fed had thrown in the towel and lead to a very adverse effect on inflation expectations and inflation itself.

December 21, 2005 (Second Day of Interview)

MR. SMALL. How surprised were you, or the staff, with the ultimate level that the funds rate had to go and how prolonged the economic weakness had to be to wring out inflation? Was the new program something everyone believed, and was there great credibility?

MR. SIMPSON. I was agnostic about where the level of interest rates would go and how long interest rates would remain high. I didn't have a strong view. That was not part of my professional responsibilities at the time, so it was not the kind of thing that I would focus on. I do remember that Steve Axilrod, in a Board meeting at one point before October 1979, was asked how high they might go, and he said he wouldn't rule out 13 percent. Well, we went well above that. As for the amount of economic sluggishness, the length of time that the economy would be performing subpar, there again I didn't have a strong view. I was certainly influenced by the rational expectations school of thought—if you can convince people that you are going to lower inflation and they take actions accordingly, then it can be a much less painful process.

To some degree, the lag seemed to be long. I suspect that if you go back and look at that period using an econometric model and comparing actual performance to predicted performance, it probably was not unusual. When you're going through a period when you're trying to put some restraint on the economy and trying to get some evidence that it's showing through in inflation, every minute seems like an eternity. It seems as though it's a longer period of time.

Accuracy and Security of Monetary Data

There were some real challenges during this period because not only did the FOMC adopt this new operating procedure in 1979—which basically got them out of the business of setting the level of the federal funds rate—that was followed shortly thereafter with the Depository Institutions Deregulation and Monetary Control Act of 1980 or DIDMCA, which extended reserve requirements and reporting to all depository institutions. We had a lot of work to do in implementing DIDMCA. From the standpoint of monetary data, which were so important to this process, there were major changes during this time. In addition, the Congress had authorized new NOW accounts nationwide—interest-earning transaction accounts—and we did not have a lot of historical experience to guide us on what to expect.

One episode that might be of interest occurred in the winter and spring of 1981. The FOMC was targeting so-called M-1A, which was M1 excluding NOW accounts. It also had an M-1B target, and M1-B included NOW accounts. We were trying to estimate how much shifting would occur to these new NOW accounts. Not so much from demand deposits—we knew lots of people were going to be closing their demand deposit accounts, opening NOW accounts, and transferring all their funds. The real question was how much they were going to be taking from other accounts, particularly savings accounts, which would be adding to M-1B. M-1A, which excluded the NOW accounts, was being depressed by the shifts out, and M-1B was being overstated because people were pulling balances from other accounts to go in their M-1B accounts. During that year, the emphasis was shifting from M-1A to M-1B because there was substantial shifting out of demand deposits into NOW accounts that was being internalized in M-1B but holding down M-1A. The FOMC actually adopted an M-1A that was shift adjusted, so they were trying to put back in those NOW account balances that were shifted out of ordinary demand deposit accounts to avoid the breaks that were resulting from this institutional change.

At the staff level, we were using various tools to identify where the funds that were going into NOW accounts were coming from. How much of them were coming from demand deposits, and how much from other sources? We had developed various methodologies. Fortunately, they somewhat converged in terms of their shares. It was nice to have some consistency. Also, there was the issue of the intra-yearly behavior of these NOW accounts. What kind of seasonal movements would these accounts have? Would their behavior correspond more to old demand deposits? Would they have behavior that was more representative of savings accounts? Or some blend thereof?

Early in 1981, the NOW accounts entering the Ms were not being seasonally adjusted. As the year progressed, it became evident that they were taking on a behavior that had a distinct seasonal pattern and they were rising more rapidly than one might have expected, just for seasonal reasons. That was getting a lot of market commentary and was important because the FOMC was targeting growth in M1. To the extent that some of that growth was just seasonal, which would be offset at some other time during the year, more volatility would be added to interest rates. It would not have a favorable effect on spending. It was going to exacerbate the restraint during some times of the year and offset it during other times.

We went on a crash project to identify seasonal factors and to start seasonally adjusting these NOW accounts. We were doing it with new data flows. There were problems in introducing these new data sources into the system and then trying to identify the seasonal adjustment factors, coming up with our best estimate about what they were, incorporating those into the system, and then using them for week-to-week operating purposes. There were some real challenges and, as I recall, we realized over particularly March and early April that the increases in M1, which were very pronounced, were being exaggerated by these seasonal influences. We were hoping that we could temper some of these seasonal variations by introducing seasonal adjustment factors for that particular component, which we did. But I think we implemented them about the time that underlying seasonal patterns were changing, so they didn't really have the kind of impact we were hoping for. It was fairly clear once we had those seasonal adjustment factors that M1 wasn't growing as rapidly as we thought before.

This had a real market effect. If we had been able to do this earlier, we might have been able to attenuate some of those interest rate movements earlier in 1981. During this time, the game for market participants was trying to guess where M1 was going to be, what the figure was going to be in the weekly data release, and then trying to get some sense of where money was relative to the FOMC's near-term target for M1. The FOMC was announcing its longer-term target, but it was coming up with shorter-term targets within the year that were compatible with achieving its annual target for the year. The near-term targets were not divulged as they would be under circumstances today.

MR. SMALL. I can imagine that you had two very different audiences for your money numbers. One would be the Board, because to the extent you get these shifts wrong, you get interest rates wrong, which means that you get output and inflation wrong. You also have the markets as an audience. These money supply announcements that you say you did weekly had big announcement effects in markets. You probably lived in very much of a fishbowl then, with publishing money numbers, and markets reacting, and staff going off to Wall Street once they knew how this worked. Can you explain that atmosphere?

MR. SIMPSON. We were serving in the fishbowl. There was an enormous amount of pressure, particularly when we were dealing with all these new data flows, trying to get them integrated in the system, and trying to better understand the behavior of these new aggregates. As I mentioned before, in 1980, the Board adopted a new set of monetary aggregates and we still hadn't been able to nail down their behavior as well as one would have liked given their primacy in monetary policy. The consequences of making a mistake were substantial in market effects.

An error occurred early in this experience—in October 1979. It involved Manufacturers Hanover Trust, New York. The person who was responsible for submitting its deposit report each week, which was a key piece of information for constructing the money stock numbers, was away this particular week. That person's counterpart at the Federal Reserve Bank of New York, who would oversee this information and would review it as it came in, was away as well. As I recall, Manufacturers Hanover misreported the deposits—not the total amount of demand deposits, but it misallocated its allocation between interbank deposits and deposits due to other customers—and put into deposits due to other customers balances that were really owed to other banks. In the construction of the money stock, this had a fairly substantial impact because it was a large bank and there was a large sum involved. Ordinarily, if it had been the regular reporter from Manufacturers Hanover, the numbers would have gotten reported correctly. And if they hadn't, the person who was familiar with them at the New York Fed would have seen something suspicious and would have gotten back to the bank, asked questions, and made sure that they were satisfied that those numbers were reported correctly. But both people happened to be away during a critical period.

The mistake had a big market impact. It had an impact on our provision of reserves. We were not satisfying the required reserves associated with what was thought to be a big increase in money stock deposit through open market operations by design. The reserves had to come from the discount window, which required producing tightness in the money markets and in financial markets more broadly.

It was not until about a week after these numbers were published that the regular people were back at their jobs and the error was discovered. We had to come out with a revision. That did not do wonders for our credibility and the credibility of this kind of control procedure.

Furthermore, there was an intensive internal investigation to see who had this information before it was published and who might have profited from it—because there was speculation that maybe some Fed officials who knew about this error had taken advantage of it. As it turned out, someone at the New York Fed—I'm sure innocently—went out and made some transactions during this period. He was a supervisor who, as a result of his job responsibilities, had to know about this error. He resigned during the investigation.

That incident really impressed upon us the importance of not making mistakes. A lot of effort went into the weekly production of the data, and this was compounded by changes that were being made to our data systems to incorporate the new data flows. In those days, we published on Friday. The traditional day had been Thursday, but because this was such an unwieldy task—it took extra time to work with these new data flows—we had to shift publication from Thursday afternoon to Friday afternoon. We would have people in our projections group working on Thursday night into the wee hours of Friday morning getting the numbers into the system. Then we always went through a careful review in Steve Axilrod's office on Friday morning, when we would go over the numbers with him. He would go over them carefully, make sure that he understood what was going on, and flag any problems before we went to publication. There was a lot of anxiety until we published on Friday.

During the week, we would ordinarily not spend a lot of time talking to people on the outside about the numbers because we'd have confidential information about the upcoming week in the form of some preliminary numbers, and we'd have to be careful that we weren't somehow tipping them off to what might be coming down the road, giving them an advantage. There wasn't a whole lot of contact with people in the markets to discuss the money stock numbers.

We tried to restrict that contact, and Public Affairs was the usual place where that kind of information was channeled.

MR. SMALL. You've stressed the importance of accuracy in publishing and money numbers. But you also revealed the value of knowing where the market surprises were and the potential value of knowing the information before it was published. For example, in your projections unit, were there any episodes when the security side didn't work well?

MR. SIMPSON. Security was tight, and people were circumspect about using that information and not revealing it. They were also careful in protecting the data file. We had what was called the "Money 1" file, which was the file that contained the monetary data, not just the published data but the projected data as well. Some of that was based on partial information that was not yet in the public domain, and some of it was pure projection. It was all linked to the short-term paths that the FOMC had established for the money stock.

We had a production cycle: We would be publishing on Fridays, and we would be getting information early in the week, each day getting more and getting revisions to earlier information, too. Usually, when we were publishing on Friday, Monday would be a slow day. Because of the intense work schedule toward the end of the week, a number of people in our projections group would take comp time on Monday, or if they came into their offices, they [would] catch up on other work and wouldn't even access the money file. Certain protections were applied to that file. We had somebody who was a manager of the file who had been pretty proactive in installing safeguards to prevent outsiders from accessing it. While accessing it wasn't impossible, there were lots of hoops that one had to go through, and they had to have special information to get into that file. There was a fairly small group—about half a dozen people—who were authorized to get into that file. The person who was managing this file developed some software on her own that identified each time somebody entered the file, the time, what they accessed within the file, how long they were in the file, and also what password they used. This was a small group that worked closely together, and they tended to know the passwords that their colleagues would use. Even though they were supposed to change passwords, they tended to rotate a few over and over.

One member of that team whom I had hired in the early part of 1981—now we're getting into the middle to latter part of 1982—had expressed a real eagerness to be involved in this projections area. It was high-adrenaline type of work, and he seemed to want to be a part of that. He was hired to join the team, he became a member of the team, but he was not developing as rapidly as the others.

In the late summer or early fall of 1982, this fellow came into my office and said that he had taken a job on Wall Street. I was a little surprised because I didn't think of him as somebody who was looking for something highly remunerative, at least that early on. And I didn't believe he was ready to take that kind of job. He did not have the experience and had not developed the skill for doing that kind of work. Wall Street is a competitive environment, and I didn't think he was going to work out very well. I tried tactfully to suggest that maybe he'd want to stay on awhile longer and get more experience before doing something like this, but he was determined that he was going to Wall Street.

A few weeks after he left, the manager of the file happened to notice on a Tuesday morning that somebody had accessed the file the previous day at a time when she was convinced that nobody on the current team was at his or her desk or in the terminal room. The normal way to access the file was from a terminal room. Because she believed that no authorized person had been around to access the file, she brought it to the attention of others in the group. They all confirmed her surmise that a security violation had occurred. She was able to identify which files were accessed.

The modus operandi of this operation fit the guy who had left. Late that morning, the unit head came to me and said, “I think we have a problem.” He took me into a room with the other members of the team, we closed the door, and we went over the evidence. I asked a number of questions, and it became evident to me that there was indeed a security violation. I accepted their judgment that it was probably this particular person. But we didn’t want to jump to the conclusion that nobody else was a possibility. We wanted to keep things open. The main thing we wanted to do was to protect the files so that there would not be any other incursions.

As soon as I was convinced that there had been a serious security violation, I went immediately to my supervisor, David E. “Dave” Lindsey. As soon as he became convinced that there was a security violation, we went to his supervisor, who was Michael J. “Mike” Prell. Mike said, “Let’s go down and talk to Steve Axilrod,” and we did. I can’t remember whether it was still that afternoon or the following morning that Steve said, “We have got to talk to Chairman Volcker about this.” We went in the Chairman’s office and brought the evidence. He was convinced, too, that there was a violation. It was clear that whoever had committed the violation was somebody who was familiar with the files. They were not just stumbling around. They knew where they were going and what they were looking for. It was somebody who probably knew the passwords of the people who were part of this team. Most of the fingers were pointing in one direction, and I can remember everybody saying that this person was stupid to be doing this because it was risky.

In our discussions before we went in to see the Chairman, I had suggested that we set up a dummy file to catch this guy or whoever was doing it. When there wasn’t an absolute need to be working on the file, the real file would be off-line and a dummy file would be out there. If anybody was accessing the file from some remote place, they would not get the actual file, but they would get the phony numbers that we had plugged in. I remember the Chairman saying that his main concern was, "Don't let anybody get into the legitimate file." And I said, "What do you think about this dummy file and using it to catch him?" He said, "That's fine. If you want to do it, go ahead and do it. But the main thing you have got to do is not let the perpetrator get into the good file." We said, "We clearly understand that." Then I remember him telling Michael "Mike" Bradfield, the general counsel, "Get hold of William H. Webster," who was the head of the Federal Bureau of Investigation (FBI). "We need to have an investigation here."

Meanwhile, I had discovered that this former employee had been taking a remote portable terminal home before he left and there was a way to access the file remotely. After he announced his resignation, there was an informal mandatory period of being detached from the day-to-day work so that he would not have access to the numbers and wouldn't be able to take advantage of them. He was able to take a number of days off from accumulated leave and comp time. We didn't need him around to do much because there wasn't a whole lot he could do at that time, so he didn't seem to be around a lot. The one thing I didn't know at the time was that he was taking a remote terminal home, and he was using it to access the file from home, just testing things.

Shortly after the FBI was contacted, some agents appeared in the hallway at the Board. I remember one of them wearing a black leather sport jacket or blazer. He looked out of character in this institution where everybody wears pinstriped suits. Everybody else in the hallway knew something was up because you don't ordinarily have people standing in the hallway talking surreptitiously, wearing black leather sport coats. I think we had aroused some suspicion.

This prime candidate was not the only one we had to look into. We had another person who had also been a part of this team; he was leaving but hadn't left yet. All of us who had worked with him couldn't believe that he would do anything like this. We had pretty much ruled him out, but he still had to be considered as a suspect. We were trying to set the trap for this other person and trying to get him red-handed accessing the file. The remaining team would allocate time to sit at a terminal and monitor the file for access. Anytime there was access to the file, they would investigate.

The FBI had contacted the local phone company and they had worked out an arrangement for tracing a phone line used to access the file. The procedure was that our people were supposed to call the FBI, the FBI would call the phone company, and the phone company would trace the user on the line that was being used to penetrate the file. One night, fairly late, our culprit got on again. The FBI was notified. The FBI contacted the phone company. The phone company traced a line, but it traced the wrong line. This was a debacle. Furthermore—I think it was on the Thursday night, so we were publishing the next day—he had actually gotten in without getting caught and gotten the money stock data from the dummy file.

The next day, as a matter of business, he was stopping by the Federal Reserve Bank of New York and meeting with Peter Sternlight, who was the manager of the Open Market Desk at the Reserve Bank. We had talked to Peter about this matter, and Peter said, "I'm going to ask him about his number"—what he had for the money stock number that was going to be published later that day. Our culprit gave his number to Peter, and it was exactly the one that we had put in the dummy file. So if there was any doubt in our minds about who had broken into the files, those doubts were eliminated.

We published at the regular time that on Friday, and it was clear when we published the real number, that he was wrong. We were concerned, since we hadn't trapped him the night before that he would get frightened and never try to get into the file again. The following Monday, he accessed the file, evidently wanting to figure out where he went wrong. While he accessed the file, our folks were monitoring, and they called the FBI. The FBI got the phone company. This time the phone company did it right; the phone call was traced to the office where the culprit worked.

To my mind, that would have been sufficient evidence, but the FBI agents wanted to catch him in the act. They said that they wanted to go up to New York the following Friday—actually on Thursday night—hoping that he would try to access the file that Thursday night or sometime on Friday and they would catch him doing so. They had gone into this particular securities firm where he worked and had talked to the manager of the office and, I think, the general counsel. I'm not sure what they had access to in this firm, but they spent that Thursday night and Friday trying to see whether he was going to get into the file again and then catch him in the act. But he didn't try during that time.

We published on that Friday. Afterward the FBI agents decided to go in and confront him with the evidence. Apparently they started to talk to him about why they were there and what the evidence was, and he spilled everything out at that point and admitted to everything. He was prosecuted. As a result of this episode, we made a number of changes to the way we protected the file. We tried to make it so that you could access it only from certain terminals that were hardwired to the mainframe. You couldn't access it from remote locations. We had done a number of other things to tighten up the security of these data. It was quite an event. I am not aware of any other breach of security that rivals this one. This guy ended up being prosecuted, he was fired from the securities firm, and I think his whole life had been destroyed as a result of that major mistake.

Redefining the Monetary Aggregates

MR. SMALL. In the months immediately after you switched to the new operating procedures in 1979, you mentioned the focus on M-1A and M-1B. Over time that changed into no longer worrying about M-1A or M1. When you made the changes, what monetary aggregates did you look at over the next couple of years and what were the driving factors behind that?

MR. SIMPSON. The new aggregates were introduced in 1980—M1, M2, and M3. Nationwide NOW accounts had been introduced. We had two transitional measures—M-1A and M-1B. M-1A, as I mentioned, excluded the NOW accounts; M-1B included them; and both were deemed to be vulnerable to distortions caused by this institutional change, so we followed both M-1A and M-1B. Then at the FOMC's request during 1981, we produced a shift-adjusted M1. NOW accounts were authorized nationwide on January 1, 1981, and we started using the shift-adjusted M1 to minimize the distortions caused by this institutional change. In shift-adjusted M1, we removed the amount of balances in NOW accounts that we estimated to have come from non-M1 sources. The FOMC was looking at all these versions of M1 but focusing primarily on the shift-adjusted M1, and that's what their targets were based on. I don't recall exactly when they went to M-1B and got rid of M-1A. Once that occurred, M-1B became the new M1. At that time, the shift seemed to be largely behind us and that this broader M1, which had been M-1B, was no longer being distorted to the extent that it had been. That would have been the latter part of 1981 and into 1982. During this time, we did a lot of analysis of M2. We didn't spend a lot of time on M3 because there wasn't a large constituency behind M3. Some people were interested in M2 as a broader measure than M1, but not a lot of interest going beyond that.

An important institutional development occurred with the tax legislation that President Reagan got in 1981. A component of this was the so-called all-saver certificate, which was a tax-free instrument that had a one-year maturity and was authorized to begin on October 1, 1981. It turned out to be a popular account. I don't recall the actual amount of funds attracted, but a substantial amount went into these all-saver accounts. Most of that occurred over October 1981, which meant that those balances were maturing starting on October 1, 1982. Interest rates had been high for some time, the economy was struggling as a result of protracted tight monetary policy, and unemployment was rising. It was clear that we were in a big recession.

As we approached October 1982, concern was growing about what would happen to funds in maturing all-saver certificates. Would they go into M1, which seemed to be the case? When the person's account matured, it would automatically go into their checking account. That would increase M1. The question was how quickly would people move those funds into higher yielding investments? If they were sluggish, then you were going to get a distortion to M1 that wasn't associated with economic activity. The distortion would be associated with this other institutional development.

In October 1982, when the FOMC met, it decided that it was too risky to conduct monetary policy as it had, focusing on M1, and it shifted the emphasis to M2. There was quite a bit of relief in financial markets when that was announced because the financial markets had been bracing for this distortion to M1 and the upward push it would impart on interest rates. Uncertainty had gotten built into markets surrounding this possibility.

When the FOMC then shifted to M2, the Committee realized that it could not exercise the kind of control over M2 over shorter periods that it thought it could over M1. Thus the Committee had to change the period over which it was trying to control M2.

We were facing some difficulties here too, at the staff level, in our understanding of the behavior of M2. There were issues about interest crediting and whether that by itself was giving some impetus to M2 growth. Interest rates were high on M2 type of accounts, and many were arguing that high interest rates on M2 accounts were giving some additional propulsion to M2 growth because people were letting the interest build up in their accounts. According to some, it was adding to M2 growth. If so, this build up wasn't associated with spending behavior; the increase in M2 occurred because people were lethargic in adjusting their portfolio of assets. We were trying to address those issues. We were trying to address the issue of whether M2 was more closely related to GDP (gross domestic product) or some kind of income measure or more closely related to some portfolio measure or measure of assets or wealth or something like that. Many important issues relating to M2 behavior were unresolved. A lot of uncertainty was associated with M2, including trying to target M2.

At the point when M2 became the principal monetary aggregate, the monetary control mechanism was modified in a fairly significant way to loosen the lock-step behavior between the monetary aggregates and reserve conditions and interest rates. That lock-step occurred over the period October 1979 to October 1982. During the rest of the 1980s, all of this evolved toward a looser relationship. Then the FOMC went back to federal funds rate targeting by the end of that decade.

1987 Stock Market Crash

MR. SMALL. Toward the end of the 1980s, there was the October 1987 stock market crash. Before that event, was the Board staff concerned about fragility issues? What was your experience going through that period and the Federal Reserve's reaction to the crash?

MR. SIMPSON. The first issue was whether stocks were reasonably priced or overpriced. There was quite a bit of thinking within the Board, as well as outside, that stock prices were probably exaggerated a little. They were stretched in value. There was a notion among investors that you could hold more equities and protect against losses by buying so-called portfolio insurance. Institutional investors were willing to take long positions in stocks believing that through portfolio insurance, using index futures, they could protect themselves. They could liquidate positions via futures quickly, if they sensed that the markets were turning down. The perceived ability to do this might have taken stock prices to an even higher level.

Over 1987, we were becoming more and more concerned about valuations. In the summer of 1987, we had a transition at the leadership level of this institution. Chairman Volcker indicated that he did not want another term, and the President selected Alan Greenspan to be his successor. Chairman Greenspan took over in August 1987. He'd been a long-time student of the stock market, and he had views on how to judge valuation. As I recall, he was concerned about overvaluation as well. We had models that we used. He had models that he used that were somewhat different from ours, and we were doing some comparisons and coming up with hybrids to look at valuation. All the evidence suggested that stocks were lofty in price relative to fundamentals.

A common concern was that there could be some kind of market break. A few of us also had some concern about the infrastructure. If you had a break in stock prices, and if it led to a big increase in volume, would the infrastructure be adequate to handle that situation? If not, could deficiencies in the infrastructure compound the plunge in prices? In the earlier part of October, I had gone to Europe to give a paper in Spain. I decided also to take the opportunity to stop off in London. I went to the Bank of England and also talked to people in the securities industry there, to get a sense of their views about the infrastructure, whether they saw any risks. There had been a problem in the tin market when the infrastructure broke down—somebody who had a long position wasn't able to settle. So that reinforced in my mind the need to be thinking about the infrastructure.

Upon returning to the Board, the Division of Monetary Affairs had just been created out of the Division of Research and Statistics. Don Kohn was the director of the new division. Mike Prell had been selected to be the director of the research division. I was not feeling terribly comfortable about the stock market, particularly about how it could withstand stress. That Friday—was it October 14?—the markets dropped quite a bit during the day and particularly toward the end of the day. There was a lot of concern going into the weekend about downward pressure on stocks. Was this event on Friday a portent of what could come when the markets reopened on Monday morning? Also over that weekend there had been some frictions between the United States and Germany over economic policy. Secretary of Treasury Baker was involved in some verbal sparring with the Germans. That had gotten the attention of people in the markets, and they were nervous about this conflict between the United States and Germany over economic policies.

We arrived at the Board on Monday morning feeling uncomfortable about where things might be headed. During that time we had an economic review every Monday morning. There was a Board meeting. We didn't have Blackberries and other remote devices to be able to follow the stock prices or securities markets on a real-time basis in the Board Room. I sensed that everybody in the Board Room on that day was nervous about the stock market. When we went into the briefing, the market was down; the Dow was down something like 60 or 70 points, which was a big drop, and one that added to this sense of anxiety.

After the regular briefings were over, the Board went into executive session to discuss things that needed to be addressed in a closed setting. I was asked to go down the hall to the Telerate machine and get an update on the stock market. The Dow was down 110 or 120. I went back and delivered the bad news. The anxiety level went up quite a bit. The market was continuing to drop; it was not stabilizing.

Chairman Greenspan had accepted an invitation to deliver a speech the next morning in Dallas at the American Bankers Association annual meeting. He left that afternoon and flew to Dallas. Meanwhile, we were watching things here, and the market fell 520 or 540 that day. None of us had ever seen anything quite like that. Then there was a lot of concern about the infrastructure. What's going to happen tomorrow when the markets reopen? We were experiencing record trading volume. We were hearing lots of stories about efforts on the part of retail customers to place orders. They couldn't get through to their brokers, so there was a lot of frustration. Panic seemed to be setting in, in some quarters.

Meanwhile, the Chairman was in Dallas. The story was that, when he got off the plane in Dallas, there were officials from the Federal Reserve Bank of Dallas there to greet him and take him to his hotel. He asked what had happened in the market. They said, "It was down something like 524." He interpreted that to mean 5.24. He breathed a sigh of relief, thinking that the market had recovered in the afternoon and there wasn't a whole lot to worry about. Then they clarified that it was down 524. I think he must have realized that the situation had gotten a lot worse and it was a matter of tremendous concern on the part of the Fed as the financial stability authority and the lender of last resort.

The question was whether he should deliver his speech the next morning. There was a lot of internal debate here about that. If he went ahead and did it at a time of market crisis, would it appear as if he was somehow blasé about this crisis, perhaps not appreciating the gravity of the situation? On the other hand, if he cancelled the speech, would that indicate that he thought it was even more serious than people feared so that more panic would set in? In the end, he made the decision not to give a speech.

There was also an issue about whether he should issue a statement that morning. He decided to issue a brief statement to the effect that the Fed was on top of things and was prepared to provide as much liquidity as necessary to contain this problem. Many people from markets came up to me in the months afterward and said that the statement had a major calming effect. That morning, the market dropped precipitously again. There was concern about whether people could get their sell orders in, concern about panic. There was concern that the New York Stock Exchange might shut down, and there were even, I believe, plans under way to shut down the New York Stock Exchange because of these conditions. For reasons that people are still speculating about, the market improved right after. Early in the afternoon it started to turn up, and that seemed to be just what it needed to recover. But it was a frightening time.

The Chairman wasn't here Monday afternoon. Tuesday afternoon his plane returned, and he got back to the office. Meanwhile, Manuel H. "Manley" Johnson, the Vice Chairman, and Gerald "Jerry" Corrigan, the president at the New York Fed, were managing things. For several days afterward, conditions were dicey—there was a lot of worry about whether the market could go into another free fall.

MR. SMALL. When a crisis like that occurs, what plans are put into action inside the Board?

MR. SIMPSON. People were commenting on the extent to which the Fed was prepared. There were some reports that the Fed had manuals that provided detailed instructions about what to do in this kind of event. In practice, the Fed didn't have anything of the sort. We had, from time to time, thought about what we would do. But recognizing that you never know what the nature of the disturbance is going to be, you have to be flexible.

An important group of players had been constituted at the Federal Reserve Bank of New York under Jerry Corrigan. I forget what title he used for this team, but it was a group of people who were like a financial SWAT team. They had worked hard to develop contacts in banking organizations and elsewhere so that they could find out what was going on in a crisis. If something needed to be done, they would know where to go to get to the people who could make those things happen. That was an important source of intelligence.

Since it was a securities market crisis, obviously the Securities and Exchange Commission (SEC) was important. We had relationships with staff at the SEC that had been developed over the years for various purposes. One of those purposes was to make sure we knew each other and what our phone numbers were so that when a crisis came, we could share information. Another important player during this period was the Commodity Futures Trading Commission (CFTC), since they regulated stock index futures. We had a fairly good working relationship with the CFTC. A lot of what was being done during the crisis was identifying points of vulnerability and sharing information. The New York Fed, the SEC, and the CFTC were the principal sources of new information.

At the Board, the contact at this level came through Don Kohn, who was the new director of the Division of Monetary Affairs. When the Chairman got back, he was in regular contact with the head of the SEC, the head of the New York Stock Exchange, and Jerry Corrigan, so he was operating at a different level. When it came to staff level contact, sharing information and coordinating whatever actions might be done, that was done through Don Kohn's office at the

Board, which interfaced with these other agencies and the New York Fed. We were having regular conference calls. The CFTC and the SEC would be checking with their offices—particularly for the SEC, their office in New York, and for the CFTC, their office in Chicago, where the futures markets were centered—trying to get as much intelligence as they could about what was happening—order flows, the ability to process those, and so forth.

After that event, the level of coordination and cooperation at the Washington level, as well as the Federal Reserve Bank of New York, greatly intensified. Lots of studies were done. We participated in many of these studies and conferences. President Reagan set up a working group on financial markets, which was chaired by the Secretary of the Treasury. We met on a regular basis, trying to figure out what happened and what we could do at the government level within our institutions—particularly those of us who regulate institutions—to improve the resilience of the financial system in case of another shock of this sort.

The Savings and Loan Crisis

MR. SMALL. Shortly after becoming Fed Chairman in August 1987, Greenspan was faced with the October 1987 stock market crash, and he passed through that crisis with flying colors. In a few years, he faced the savings and loans (S&L) crisis. Do you have any particular memories of that crisis?

MR. SIMPSON. We had a group here at the Board that covered thrift institutions, savings and loans being the biggest of the thrift institutions. That was done in the Capital Markets section. We had access to the quarterly Call Reports and other sources of information, so we could do analyses of their financial positions, the various types of assets they held, their liability structures, and so forth.

As we were going into the S&L crisis, we had already done quite a bit of work here at the Board. A new team was at the Treasury Department. This was 1988, and Nicholas F. "Nick" Brady was selected to be the Treasury Secretary. Then he brought in his team—Robert R. "Bob" Glauber and David W. Mullins, Jr. on the domestic side. The Chairman was concerned because our discount window was legally open to S&Ls. So we had a certain vulnerability in potential obligations to provide credit to these institutions, which we did not regulate. We were scoping out the dimension of the problem. Since we had developed some of the best expertise in Washington on the condition of this industry and to approaches for resolving this problem—and the Chairman was aware of this—in his consultations with folks at the Treasury Department, he volunteered our services. Patrick M. "Pat" Parkinson and I worked for a time closely with David Mullins at the Treasury Department to address "the hole" as it was called. The hole was the exposure of the insurance fund to losses in that industry and how much the taxpayers in the end were going to have to pony up to get through this particular crisis. The Fed and Treasury had differing methodologies, and we compared our respective numbers. We then worked with the Treasury to come up with the outline of a federal response, which served as a model for what was ultimately adopted.

Assistance to Foreign Central Banks

MR. SMALL. We've talked about your experience in domestic monetary policy. As the 1990's progressed, you became involved in what was called "technical assistance," which was overseas. Could you give a general overview of the need for that and then some of your personal experiences?

MR. SIMPSON. From time to time, the Federal Reserve would be asked by foreign central banks for assistance. This could be project-specific. It could be short term, like a week to a few weeks. In some cases, it was longer. But it was not a major effort of the Federal Reserve. When the Iron Curtain came down in the late 1980s, the Eastern European countries needed help. Unlike a lot of other countries that are transitioning to a market-based system, these former communist countries were starting at square zero, if not even at an earlier point. They didn't understand the responsibilities of central banks in market-based economies. The IMF had become the major provider of assistance to central banks that were seeking to develop and strengthen themselves. In many cases, the IMF imposes as a condition for an IMF program that the country strengthen its central bank in various areas. The IMF had a lot of experience.

When the Iron Curtain collapsed, the demands on the IMF got rather intense because everything happened basically at one time. The need for assistance was tremendous. The Federal Reserve got more involved—not so much from the Board, but from the Reserve Banks—in various efforts to assist these central banks. Meanwhile, there were counterparts of the IMF developing—or maybe substitutes for the IMF, such as the Financial Services Volunteer Corps, which was set up by Jerry Corrigan at the New York Fed, along with Cyrus R. Vance, a prominent attorney and former Secretary of State. They were trying to take advantage of expertise, primarily on Wall Street, which could be lent to commercial banking in particular and other areas of the financial system that needed attention. The Federal Reserve got pulled into an unusual amount of technical assistance in that part of the world.

When the Soviet Union collapsed, instead of one country, you had 13 new countries—all of them with extremely primitive financial systems and with central banks that had no idea what a central bank was to do. There was no way the IMF could respond to that need with its own resources because it was already stretched thin. The major central banks sat down and identified about 11 or 12 primary functions of a central bank that could be addressed through technical assistance. The Fed was represented through Edwin M. "Ted" Truman. They tried to come up with a matrix that would have a major central bank providing assistance in a particular cell. For example, it could be the Moldova payment system, and so you had to get a central bank to commit to providing assistance in the area of [the] payment system of Moldova. Ted was reaching around the Board and through the Federal Reserve System to see what resources might be available to help out in this unprecedented effort. The Board was supportive of trying to help in areas where we could make a difference.

Meanwhile, Jerry Corrigan had gotten involved in Russia. He had become a friend of Boris N. Yeltsin. Yeltsin had been in consultation with Jerry Corrigan, trying to get his views on what they could do to make visible improvements. In many of these countries, they realized that they had a short window to make demonstrable progress to get the support of the population, to say, "Yes, this is the direction we want to go. We want to buy into this. We like this democracy. We like these open markets and the opportunities provided. And it's making our lives better." Working with President Yeltsin, Jerry Corrigan attempted to identify certain demonstration projects that would have quick payoffs, that would be visible, and that would get the broader support of the population. Jerry was visiting Moscow with some frequency, trying to provide assistance through the Financial Services Volunteer Corps that had already been established to provide assistance in Eastern Europe.

Various members of the Board staff were asked for assistance. David E. "Dave" Lindsey, for example, was asked to work on some technical securities market and monetary operations issues for the Kyrgyz Republic and Kazakhstan. Bruce J. Summers was asked to work on the payment system for Russia. Bruce at the time was seconded to the Board by the Federal Reserve Bank of Richmond. I had indicated a willingness to be involved in providing assistance. At first, I was not tapped. Then in the summer of 1992, I was asked whether I might be interested in going to Moscow and being an adviser to the Central Bank of Russia, in the area called monetary research. This is about as close as one got to monetary policy in the IMF matrix. This had originally been assigned to the Bundesbank. The head of the new central bank of Russia had gotten to know Jerry Corrigan and was quite impressed with the knowledge and ability of the Federal Reserve as he saw it through the New York Federal Reserve Bank president. He was approached about an adviser. Would he like to have an adviser on monetary policy? He said, "Yes, I'd like somebody from the Federal Reserve." This was Georgy Matyukhin, the first chairman of the Central Bank of Russia.

I was then approached by Charles J. "Charlie" Siegman, who was working with Ted Truman on those issues. I thought, "This is a once-in-a-lifetime opportunity." I grew up in the 1940s and the 1950s, when the rivalry with the Soviet Union was really getting intense. Most of us thought that we were going to die as a result of a Soviet missile firing a nuclear bomb at us. For this threat to go away and for the opportunity to perhaps make a positive difference to their well-being, to help turn that situation around and turn the former Soviet Union into a stable, market-based democratic system, was very appealing to me.

I said I'd be willing to do it. But there was a problem in that the Bundesbank, in that matrix, had been assigned this responsibility. As it turns out, I knew the fellow from the Bundesbank who had taken responsibility at the Bundesbank for this function. I called him and explained the situation to him. He said, "I don't want to go over, and I don't want to spare anybody to go over to be a resident adviser. If this is what Matyukhin wants, then you have my blessing. Go for it!"

Ted Truman suggested that, before we made a commitment—which was thought to be a one-year commitment—I go over and explore the situation to see whether it would work out and whether I would be effective. All of this would be coordinated by the IMF. This matrix was managed by the IMF, which was the glue that held all of this assistance together. We had informed the IMF that I was interested in the resident adviser position, but Ted thought that the Board should send me over to explore whether it would be worthwhile before making a final commitment.

As it turns out, the day before I was scheduled to leave, the word got out that Matyukhin had been fired by the Parliament. There was some doubt in my mind about whether this was going to be as fruitful because it was this deposed chairman of the central bank who had specified an adviser from the Federal Reserve. Shortly after I learned that Matyukhin was fired, I learned that Viktor Gerashchenko, who had been the last chairman of Gosbank under the Soviet Union, had been selected to be the new chairman. I proceeded with my exploratory visit. I spent a week in Moscow. I visited with the new research department. This was an entirely new operation. They were Ph.D.s in economics, but they didn't understand the first thing about economics in a market setting or central banking. They were very proud, so there was a challenge in convincing them that they didn't know much about what they were doing, even though they had the title Doctor in their name. I went around the research department and elsewhere and talked to people I thought would be key people with whom I'd have to work.

Under the structure of the central bank of Russia, you have the chairman, and then you have the deputy chairmen. One of the deputy chairmen then was a fellow named Sergei M. Ignatiev. He was a friend of Yegor T. Gaidar, who was the Prime Minister and was very reformist-minded. But under the new chairman, Gerashchenko, he was pushed to the side because he was a reformer, and Gerashchenko was of the old Soviet mindset. It was interesting. During that first week I met with Ignatiev, and he seemed to be positive about my coming. We saw things alike, which I found that to be encouraging.

The last day I was there, I was told that I was going to meet the new chairman, Gerashchenko. I was representing the Federal Reserve and the IMF. I think, in his mind, those were the two organizations that he had the most disdain for—the Federal Reserve in the United States, the arch-enemy of the Soviet era, and the IMF, which was trying to impose all these conditions on him. He wanted to have a free rein in running his central bank. He didn't want the fetters that come along with an IMF program. Yet he was being told by Gaidar and other people in the government, "We need an IMF program. This guy's coming from the IMF, and you'd better treat him nicely and welcome him because, if you don't, you might jeopardize our program. We need that program."

He invited me to his office. I've written down detailed notes of what we discussed. He used that opportunity to tell me that nobody from the West understood Russia. Russia was different from every other country in the IMF. Inflation was caused by monopolies in Russia. It wasn't caused by monetary policy. He also was bristling because he had just been informed that the IMF was going to insist on an audit of the central bank by some Western auditing firm that was certified to do this kind of work. The thought of some private financial entity stepping around in his central bank was an anathema to him. He used that opportunity to vent about the IMF and to convince me that I didn't know anything about economics as it applied to Russia.

In the end, he conveyed that he thought it would be useful if I were to come as a resident adviser. We worked out an agreement that I would go for three months, survey things at the end of that time, and if I found areas that needed attention about which maybe somebody else would have more expertise, I would try to find someone to fill in for me for one, two, or three months, something like that. Then I would return to Moscow and spend an extended period of time. I would be overseeing the development of their research function but with the thought that, for one year, we at the Federal Reserve would be committed to supporting that particular function.

About a month and a half later, I went to Moscow. I was the first resident adviser to the central bank of Russia. It was interesting because I was given so-called "terms of reference" from the IMF that I was to present to the chairman of the central bank immediately upon arriving. The first day in the central bank, I was introduced to the staff assistant, kind of like the chief of staff for the chairman. He spoke English well. I explained to him that I had these terms of reference and that I needed to see the chairman. He said, "I will work you in." He knew how to contact me. Afterward, I would see this guy probably two or three times a week. Every time I saw him, I said, "I'm carrying my terms of reference. I have to see the chairman." His response was always the same: "I am working on getting you to meet with the chairman." I arrived right about the beginning of October, and it was probably about the second week in December when he finally said, "The chairman can see you now." I was prepared to go see him, and then I was told he had a major crisis to deal with, and I was preempted. About a week later, I finally went to see him. But then it was clear that he knew I was about to go out the door. He really didn't want anybody in his central bank snooping around on monetary policy because he wanted to control things on his own in secrecy. He didn't want people looking over his shoulder, criticizing him. I was, I think, viewed as somebody who was performing that role.

While I was there, I was disappointed that I didn't have much access to the highest levels of the central bank. I did work closely with the research department, and I think we made progress in identifying their responsibilities more clearly, providing assistance in helping people analyze the problems they were confronting, and identifying technical assistance that was needed for them to leverage up their abilities. In the end, it was worthwhile, but it didn't have the payoff that I had expected or that it could.

Interestingly, the current chairman of the central bank of Russia, who has been in that position for a few years, is Sergey Ignatiev. He was the deputy chairman when I was there in the early 1990s. We were soul mates. I had a lot of respect for him. I thought that he was competent and committed to necessary reforms. He seemed to be an honest, straight-shooter. The reason he was relegated to the pastures at the time was that he wasn't playing ball with Gerashchenko.

So that was my involvement. After three months, that was it. It was clear that there was no interest on the part of the chairman of the central bank to have any more people trudging around in the area of monetary research or monetary policy. We continued to provide assistance from here in D.C., particularly people from the central bank attending IMF institutes, and to work with them in helping them understand how we at the Federal Reserve do our job. Meanwhile, the Board has been tapped in the area of banking supervision in Russia and in other former Soviet republics, and in various other areas too—payment systems and management. Ted Allison [Assistant to the Board for Federal Reserve System Affairs] worked in the area of management and organizational structure.

My more recent foray into technical assistance was the result of a phone call that Chairman Greenspan got from the Undersecretary of the Treasury about three years ago, saying, "It's quite possible we will be having an armed conflict with Iraq. We might be the occupiers, in that event. We're forming a taskforce to work on financial sector, monetary policy, and budget issues. The area in which we have the biggest gaping hole is in monetary policy and central banking." I guess because of my previous experiences, I was asked if I would be interested. I talked to my wife about it. She was supportive, even if it meant me going to Baghdad. So I said I would do it.

On March 17, 2003, a few days before the first bombs were dropped, I starting working full time at the Treasury, working on Iraqi monetary issues, trying to understand what was going on there. Because Iraq had been in isolation for more than a decade, we didn't have good intelligence about what was going on: their banking system, the central bank, who the players were, what kind of skills they had, how they were organized. It turned out to be one of the more interesting experiences I've had.

It was also clear that we needed to take the lead in introducing a new currency. Two currencies circulated in Iraq. There were the old Iraqi dinars that circulated in the Kurdish region. After the sanctions were imposed in 1990 in response to Saddam Hussein invading Kuwait, he couldn't get any more currency from abroad. Because of the embargo, none of the legitimate suppliers would provide him with currency. So he had to start printing his own. And his own currency was of a very poor quality. Not only was it of poor quality but, during this period, electronic imaging devices improved considerably, so it was easy to counterfeit one of the Saddam dinar notes. Then, in some quarters in Washington, one of the most unacceptable aspects of the Saddam notes was a prominent picture of his eminence on each and every note. It was clear that there needed to be a single currency in the country and that it needed to be exchanged at par for the old dinars or the Saddam dinars. The Saddam currency had inflated like crazy. The exchange value was something like 250 Saddam dinars for one of the old dinars, when they once exchanged at par. So the question was: Do you calibrate to the Saddam dinars?

Do you calibrate to the old dinars? Do you reintroduce the old dinars, or do you modify them in some way? These were issues that we explored.

I got to know currency printers well. In fact, they got to know me. They were the ones who searched for me. We were coming on the heels of the introduction of the euro, and the global printing industry had been focused on printing euros. There was some augmentation of capacity to be able to meet this challenge. Idle capacity emerged once they filled the orders, which involved overprinting by a substantial amount, I think intentionally, so that they wouldn't have problems running out of these new euro notes. This idle capacity was mainly within Europe but in some other parts of the world as well. The currency printers are intelligent people, and they were trying to figure out where the next big job might come from. There was Iraq with a currency that clearly needed to be replaced. And who was in charge? It was the United States. Who in the United States was in charge? It was the Treasury Department. So it was just a matter of fingering that person in the Treasury Department. I got a lot of unsolicited contacts from currency printers literally from all over the world. That was an important part of the job early on—introducing the new currency.

Subsequently, I've continued to be involved—although not working out of the Treasury any more—working out of here at the Board, working with the central bank on monetary policy issues. When I volunteered to do this, in March 2003, I was thinking, "Typically, within a six-month period, you should be able to hand off this work to the IMF." When it comes to institution building, the IMF is well suited to do this kind of work. But early on, since there was a lot of division among the major IMF members about our military operations there, the IMF couldn't, as an institution, be supportive of doing much. Not until the U.N. (United Nations) Security Council resolution was passed were they basically given the green light to cooperate with us and actually start providing assistance themselves. They got involved in a big way early on; they sent a lot of missions.

Their missions were under less rigid security rules than were our people, working for the Treasury Department. Our people from the Treasury Department often would bristle because the IMF could schedule a meeting and go there immediately. Our people had to get approval, would have to get military transportation, a convoy to take them, and so forth.

Then, in August 2003, came the bombing of the hotel that a high-level U.N. official, Sérgio Vieira de Mello, was staying in. The IMF was using that hotel as well. An IMF staffer, who had been there a couple of months providing technical assistance and was accomplishing a lot, had serious injuries. Others, too, were seriously hurt but not so seriously as he was. After that, the U.N. pulled out. The IMF said that it was not sending its own staff and not contracting with consultants to go in its stead.

That changed the complexion of providing technical assistance, and it left the responsibility to the U.S. government. For more than two years, we've been trying to do what the IMF would have ordinarily been doing. We haven't accomplished as much as we would have under better circumstances. But the security situation is such that it's difficult to get around in that country. It's difficult to recruit people who want to put their lives at risk by going to Baghdad to deliver assistance. In one case, however, we have somebody who is cavalier about that and he's frustrated—somebody with tremendous experience, a former Federal Reserve official, retired, who is frustrated because he has to spend all his time in the Green Zone because he can't get authorization for transportation to the central bank. It's infrequent that he can go to the central bank. In Iraq, doing what are ordinarily, under different circumstances, simple tasks is much more difficult, much more challenging.

MR. SMALL. These are basic infrastructure problems—just having a currency and then a payment system, moving money around, and having electronic transfer of funds.

MR. SIMPSON. That's on the drawing board. There's a program for a number of parties working together to develop a payment system so that it will be operational in the coming year, hopefully within the first six months of 2006. Right now, they don't have an electronic payment system. It's a cash-based economy, and it's extremely inefficient. To give you some idea of how inefficient it is and how it weakens security: Iraqi border guards usually patrol an isolated place far away from home, and they get paid cash. What do they do when they get their monthly cash payment? They disappear for a week. Why do they disappear? They disappear to take the cash home to their families. It takes them several days to do that. If you could authorize instructions to credit their accounts with the bank in their hometowns, their families would have the cash much faster. It would be reliable, and that security guard would be able to provide a full month's worth of security rather than three weeks or whatever it turns out to be each month.

You can see some considerable inefficiencies as a result of this cash-based economy. The scheduled improvements will create a well-functioning payment system, even under the adverse security situation because a payment system is basically a communication system with settlement on somebody's books. There are ways of getting around the security problems associated with landlines and the like. They've figured out ways of doing that which are resistant to insurgent activity. A key official at the Federal Reserve Bank of New York has played the coordinating role in this effort. So the Fed's been involved in the payment system. The Fed was involved in the new currency, and the Fed is involved in the new payment system that will be coming on line shortly.

Terrorist Attacks on the United States on September 11, 2001 (9/11)

MR. SMALL. Getting back to the U.S. economy—what was your experience on 9/11 and do you have some insight on the financial-market repercussions?

MR. SIMPSON. I can remember that day well. It was probably the most gorgeous day in Washington history. After coming off a long hot spell, it was dry, mild, and beautiful, not a cloud in the sky. I learned the news that a plane had crashed into the World Trade Center tower through Julie Edwards, David J. "Dave" Stockton's staff assistant. Dave was in Paris. The Chairman was in Basel. In fact, we were short on Board members at that time—all but the Vice Chairman were away.

At the outset, it was unclear whether this was an errant plane that flew into the World Trade Center or whether it was an intentional attack. The World Trade Center was in the heart of the financial district and housed some important parts of the financial system. So it was clear this had implications. The usual place we gravitated in crises like this had been Don Kohn's office. As Don moved into another position, it was Vincent R. "Vince" Reinhart's office.

Not too long after the first plane went into the tower, the second plane went into the other tower. It was clear that this was not an accident; this was intentional. I remember being in Vince's office. People were starting to come together, trying to figure out what we needed to do to manage this crisis. Since it was downtown New York, it wasn't clear whether the New York Fed could play its usual role since it was close to the site of the attack and vulnerable to collateral damage. I remember J. Virgil Mattingly, our general counsel, standing up from the table—the rest of us were seated around the table—and walking over to the window facing Constitution Avenue. His eyes got very big, and he said, "Oh, my God! Something's happened at the Pentagon!"

We were watching CNN at the time. It would have these news ribbons at the bottom, but there was nothing about the Pentagon having been hit. We all went to the window and looked, and there was smoke coming from the other side of the Potomac River. The only major building over there was the Pentagon. So then one was really concerned about who's next? Is there another plane up there? Are more planes going to be crashing and, if so, where in Washington? Meanwhile, the Vice Chairman [Roger Ferguson], who was the only Board member here, came up to the office. We were trying to get through to the Federal Reserve Bank of New York. The phone lines were clogged. It was really hard to get through to the Federal Reserve Bank of New York.

Also that day, the Treasury was going to be auctioning a one-month note. Peter Fisher, the Undersecretary of the Treasury in charge of this, was trying to decide what to do about auctioning the note. Under these circumstances, should they go ahead and conduct the auction, when Cantor Fitzgerald in New York has been wiped out and other important players were probably incapacitated? It didn't take too long for him to conclude that he needed to cancel his auction.

Then Don Kohn, whose office was on the second floor, came up. We were trying to figure out the areas of vulnerability. Having been through the stock market crash and the S&L crisis, one had a pretty good idea of where some of the stress points might be. There was a problem in communicating with the Federal Reserve Bank of New York because of the proximity to the decimated towers. There were concerns about the structural properties of a building across the street from the Federal Reserve Bank of New York. With all the trauma that affected the ground in that area, the building might be vulnerable and might collapse on the New York Fed. Things were pretty much in disarray at the New York Fed.

The operations were moved from Vince's office down to the special library on the second floor. We had CNN going continuously down there. The Vice Chairman was dealing with foreign central bankers and other agencies here in Washington and was managing things out of his office, with support coming from the group that was centered in the special library across the hall.

Issues came up during the day. There were concerns about ATMs being adequately supplied and what would happen if people learned that ATMs were being depleted. One of the currency delivery companies had tentatively decided to stop operations that day, which would have meant that the areas serviced by that company would not be getting currency. When we learned about that, we said, "No, no." You've got to tell them that they've got to keep going and continue to make their deliveries." It was going to be critical that people would feel comfortable that they could access cash if they needed it. These were crisis conditions.

Some Federal Home Loan Banks were having difficulties because they had paid out and, because of the disruptions to the wire system, they weren't getting their normal inflow of funds for the day. They were facing liquidity problems. We were trying to identify the most serious points of difficulty that day. The next day the question was, with the RP market out of business, how are you going to get the liquidity into the system? We let institutions know that the discount window was wide open. As time went on, we were able to conduct open market operations and then put in tremendous amounts of reserves as soon as we could through open market operations. But it was pretty dicey at first.

MR. SMALL. When did the Chairman get involved?

MR. SIMPSON. Let's see—the attack occurred on Tuesday. Chairman Greenspan was scheduled to return on that day. He was on a commercial flight that was out over the Atlantic, on his way back to Washington. They were told that they needed to turn around, that they couldn't land in the United States. So he went back to Switzerland. I think the plane took off from Zurich, and I think they went back to Zurich. As I understood it, he was unable to get a hotel room in Zurich. He had to go back to Basel, where he had spent the previous night, and was there until the President was able to send a plane over to pick him up. I think there were a few others who came back on that special Air Force flight.

Meanwhile, the Vice Chairman was managing everything. Don, who had a lot of experience, was playing an important role in advising the Vice Chairman of those areas of particular difficulty and what the options were in dealing with them. Within a day or so, we had identified those things that were not functioning as normal and were trying to figure out how to monitor and address the situation, particularly liquidity provision.

Payment System Risk

MR. SMALL. Going back to the start of your career here, the importance of the payment system must have loomed larger and larger in your mind as you worked your way through these crises. Do you think the Federal Reserve pays more attention to payment system risk and infrastructure and is more aware of the vulnerabilities, and contagion? Or do you think that was more just your personal picture?

MR. SIMPSON. I think the institution is more on top of these issues. It understands much more about things such as security, clearing, and settlement for the various types of securities, and the payment system, and has devoted many resources to better understanding the economics of these systems and appropriate policies. There's no question that the Federal Reserve is much more on top of this.

The systems are more complicated today than they had been. You didn't have financial derivatives—particularly, options and futures on stock indexes, all the complicated swaps, and so forth. Yet all these instruments have a clearing and settlement aspect, a counterparty risk aspect, and a payment system dimension. I think people are more focused on this. The resources that the Fed has devoted to it have been good. I think we're better prepared now for crises and making sure that the systems are stronger to withstand them. We're better able to respond to crises as they occur.

MR. SMALL. From what you just mentioned—the new markets, the new instruments, the new demands they place on the payment system, and the new risks—do you have any thoughts on Long-Term Capital Management as a specific example. It wasn't a commercial bank, but it presented great risks to the U.S. financial system. Would that type of thing have been possible 30 years ago?

MR. SIMPSON. I'm aware of what happened and the reasons that they made mistakes in taking positions. I am aware of the problems that they posed. Once they got into trouble, they posed risks to other institutions in the financial system more broadly. Thirty years ago, it would have been much more difficult for an institution other than a bank to be posing that kind of threat to the financial system.

MR. SMALL. For payment system risk, the Fed has a continually broadening responsibility for nonbank institutions that can put the system at risk.

MR. SIMPSON. It's not just the payment system; it's the clearing and settlement systems and making sure that the risks are clearly identified and managed appropriately. These transfers are not instantaneous, so there will be risks involved: counterparty risk, credit risk, and so forth. I think we're light years ahead of our previous understanding. There are a lot of vulnerabilities of the financial system now. But when you look at what the financial system has been through in the past several years—the stock market bubble of the late 1990s and the subsequent precipitous drop in stock prices—under a more rudimentary system there would have been serious disruptive effects. They didn't happen. I don't think it was an accident. I think it was because good planning occurred and the good systems were put in place.

The one shock that got people's attention, and I keep coming back to it, was the stock market crash of October 19, 1987. We were so close to the precipice. The system was so close to freezing and not having the capacity to settle. It was so vulnerable to some weak participants who might have had difficulties discharging their obligations. Realizing how complicated the transactions were, and how difficult it would be and how long it would take to unwind those transactions, led to a considerable sobering up and a panoramic perspective of where the risks rest in the financial system, not just the payment system but all the counterparty risk. That's not to say that we might not wake up tomorrow and find a problem that we hadn't anticipated; but we're so much better prepared for these things. I think we have the right resources in place to do the analytical work. We're in a much better position now than we were 30 years ago.

As the financial system has evolved outside the commercial banking system, the risks have changed. The incidence of losses when big changes occur in asset prices is no longer so much the banking institutions' balance sheets. It's somebody else's portfolio. Does that pose a threat to others, if they can't meet their obligations in a transaction? We've given quite a bit of thought to that and quite a bit of work to improving the system so that it's less vulnerable—and with a lot of cooperation from the private sector as well. They want to make sure that their systems are solid and are going to withstand shocks as well.

MR. SMALL. Thank you for your time.