

Federal Reserve Board Oral History Project

Interview with

Roger W. Ferguson, Jr.

Former Vice Chairman, Board of Governors of the Federal Reserve System

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Interviewers: For April 11, 2006, David H. Small, Jeffrey C. Marquardt, and Angela Desmond; for April 13, 2006, David H. Small, Jeffrey C. Marquardt, David Skidmore, Ben Hardaway, and Brian Madigan; for April 14, 2006, David H. Small and Jeffrey C. Marquardt

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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April 11, 2006 (First Day of Interview)

MR. SMALL. Today is Tuesday, April 11, 2006. This interview is part of the Board of Governors of the Federal Reserve System's recollections [and] Oral History Project. Today's interview is the first of three with Roger W. Ferguson, Jr., the current Vice Chairman of the Federal Reserve Board.¹ I am David H. Small from the FOMC (Federal Open Market Committee) Secretariat in the Division of Monetary Affairs. I am joined by Jeffrey C. Marquardt, Deputy Director in the Division of Reserve Bank Operations, and Angela Desmond from the Division of Banking Supervision and Regulation.

In today's interview we will focus on three areas in which the Vice Chairman has worked extensively: the immediate response to the 9/11 attacks, along with the longer-term response by the Federal Reserve; the Basel II capital proposal; and monetary and regulatory policy in an international setting.

Vice Chairman Ferguson, thank you for spending this time with us today.

MR. FERGUSON. Sure, thank you.

Early Years on the Board of Governors

MR. SMALL. When you started your service at the Fed, you came with a broad background. You were well prepared for working on economic issues, having received a B.A. and a Ph.D. in economics from Harvard University. You were also well prepared for understanding legal issues, having received a J.D. from Harvard and having practiced law in the area of syndicated loans, public offerings, and mergers and acquisitions. And you had management experience as the director of Research and Information Systems at McKinsey and Company.

¹ Roger W. Ferguson, Jr., served on the Board from November 5, 1997, to April 28, 2006.

Do you remember your first days on the job at the Federal Reserve and your thoughts about how well trained you were for the types of issues you'll be discussing today? How would you describe the intellectual framework you had?

MR. FERGUSON. Contrary to what you said, I felt that I still needed seasoning and training to be a Federal Reserve Governor because, while I had training in economics, I was not a professional economist. I hadn't made my living as an economist. While I had managed a number of people in a research operation, the job of Fed Governor didn't immediately call for management. I didn't come in with a staff of hundreds of people reporting to me directly or indirectly. My experience in consulting to banks, while relevant, wasn't really as a Washingtonian who had spent time doing banking policy matters or banking supervision. I understood how banks operated, but questions like what the capital regime should be, for example, were things that were somewhat new to me. Regulatory matters were not topics that a consultant typically faced in the 1980s and 1990s.

During my first year, I would get into the office early, at around 6:00 or 6:30, and read everything that came across my desk as a way to get up to speed. I did that in part because that seemed like the right thing to do. I also got some good advice from Mike Kelley, who had taken exactly the same approach. Mike was a Governor when I joined the Board and had been for some time.² It was extremely important to read everything that came across my desk, to ask lots of questions outside of meeting contacts, and to continue having the same kind of staff briefings I had had when I was being prepared for my testimony.

At the end of 1997 and into 1998, we had some of the first bits of financial instability that would define the first years of my tenure here. The Asian crisis hit around that time. From

² Edward W. "Mike" Kelley, Jr., served on the Board of Governors from 1987 to 2001.

looking at the meeting transcripts, I recall that the FOMC was struggling with exactly what to do with respect to that. It wasn't immediately obvious how the crisis would affect the United States—if at all. We were cautious in using the federal funds rate to offset that crisis. Most of the discussion was about the types of risks that would be potentially unfolding here, but it wasn't immediately clear what we should do to offset those risks.

It was a time of uncertainty for a new person joining the Committee. I recall thinking and saying at the time that I was impressed with the calmness with which the Committee dealt with this great uncertainty from the international side of things. That was the first broad lesson. I was hardly leading the thinking or problem solving, being relatively junior on the Committee, but I was observing with great interest the ability of the Committee to discuss these issues. We were relatively cautious on what we chose to do during most of the first year that I was here. Interest rates didn't move very much at all. An interesting lesson from my standpoint was that the Committee didn't panic. We continued to focus on doing good analysis. We let things unfold. We were not activists. During a period when one might have chosen to move the rates around quite a bit, we did relatively little while monitoring very closely.

MR. SMALL. You mentioned moving the funds rate around. This is potentially in response to the Asian crisis, which was also connected with the Russian default and the collapse of the hedge fund named Long-Term Capital Management (LTCM). Were there any surprises in the underlying plumbing of the systems and microstructure or about the Fed and regulation?

MR. FERGUSON. Oh, absolutely, There was a huge amount to learn. In some sense, the Fed's unlegislated mandates center on financial stability and the operations of the financial system. Whether or not there is sufficient liquidity in markets, for example—which would show up in bid-ask spreads—was extremely important during this period, particularly in 1998. Trying

to understand how markets were functioning by looking at market indicators and expectations was important.

There was also another element of the financial infrastructure that became important later, which had to do with the clearing and settlement systems. Getting those prepared came into play in Y2K (Year 2000). And, certainly, we'll talk about that in relation to 9/11.

The issue of financial infrastructure was something that I had thought a bit about when I was a consultant at McKinsey, but how that played into financial stability only came to life here at the Fed. It came to life through external events that forced that onto the table, as opposed to the kinds of briefings that one would have gotten about macroeconomic matters. That was real-time learning and learning very much on the job, at least at the Governor's level, although not necessarily at the staff level.

The issues of financial stability—the infrastructure, how markets are performing, liquidity—are important issues that people in the System watched over the years. In hindsight, I was surprised at how little time we actually spent talking about those issues in placid and calm times as opposed to the weekly and now biweekly briefings that we get about stability and macroprudential matters—nonfinancial, financial, and international. It was only in crisis mode that the workings of financial markets became an issue. That has now changed, and the Board is spending more of its time thinking about financial stability issues during non-crisis times.

In 1998, the most interesting moment occurred during the Jackson Hole meeting in August.³ The LTCM crisis hadn't quite occurred, but you could see that things were starting to fall apart. The Asian crisis was still unfolding, and we hadn't done much. Chairman Alan Greenspan gathered us in a small room in Jackson Hole to talk about what he should say publicly

³ An annual economic symposium hosted by the Federal Reserve Bank of Kansas City in Jackson Hole, Wyoming.

and what we might think about doing as we got into the fall. He decided to use a speaking opportunity at the University of California at Berkeley to say that the United States could not be an island of stability in a sea of instability—or something of that sort.⁴ This was the first signal from the most senior levels of the FOMC that we were not just analyzing, but probably getting ready to take some action. We then started to cut rates to deal with the potential fallout of what was happening overseas, particularly the Asian issue. Ultimately, the crisis emerged more broadly with LTCM and other things.

That was an interesting lesson from my standpoint on two things. One was Chairman Greenspan's collegiality. He took every opportunity during that Jackson Hole meeting to talk to all of the members of the FOMC who were there. He got a number of us, including myself, on phone calls with some Reserve Bank presidents who weren't there so he could solicit input on what he was going to say, to get it modified, and to make sure it represented broadly the general sense of the Committee.

It was also an important lesson in acting aggressively when it's time to act. To get ahead of market expectations, to get ahead of the curve—this was one of the hallmarks of the Fed during his tenure. It was one of the first times, at least in my tenure, when the issue of communications—signaling [to] the markets—was very much on the table. Though I'm sure the Fed had done it previously, it was never in such a sensitive moment. We had to think about the message first, then take action later, making sure that markets were well prepared. That was important, as I think about my tenure in the Fed, because this issue of communication has become one of the more important ones. That period around the Jackson Hole meeting was the

⁴ “[I]t is just not credible that the United States can remain an oasis of prosperity unaffected by a world that is experiencing greatly increased stress” [(Greenspan, 1998, paragraph 4)]. Alan Greenspan (1998), “Question: Is There a New Economy?” speech delivered at the Haas Annual Business Faculty Research Dialogue, University of California, Berkeley, [Berkeley, Calif.,] September 4.

first time that I had seen signaling being used in such a clear and strategic fashion by the Chairman.

Those are some of my recollections of the early days. I was personally working very hard on my own on-boarding process but also observing the Committee deal with the unfolding external circumstance: first by monitoring very closely, then by communicating very clearly, and then by acting fairly aggressively. Those things are the essence of central banking.

A final point about that first period was how remarkably collegial everybody was, including Chairman Greenspan. As a relatively new person on the block who was not very well known to anybody on the Board, I will always be grateful to my colleagues, particularly Mike Kelley, who was responsible for making committee assignments. He gave me a chance to become a full member of Board committees that were well selected and allowed me to show what skills I had.

So there were lessons from the first year that really reflect the strength of the Fed. They also indicated how the next seven or eight years would unfold and how the Fed itself would evolve over time.

Early Crises

MR. SMALL. The Basel I capital accord had been well established by the time you came to the Board. Would you discuss that first crisis? What issues arose in international banking that might have informed your interest in how Basel II might take shape and what it would need to address?

MR. FERGUSON. Those first early crises—the Asian crisis, Russian default, LTCM—proved a couple of major points. One is that appropriate risk management, appropriate lending and credit culture, and, obviously, capital levels that reflect risk were extremely important not

just for U.S. institutions, but for institutions globally. Another is that weakness in one part of the banking system—the Asian crisis, in particular, was one that reflected poor bank judgment—could lead to a broader range of crises that would emerge over time. It was quite clear that banking capital and banking regulation—certainly for the G-10 countries, but also more broadly—should be held to a much higher standard. We could see that poor banking practices in one relatively small country would tie to other elements of the financial system, such as foreign exchange policy, and could have broad negative ramifications globally.

It was implicit in everyone's understanding, including mine, that modernizing the bank capital regimes should be done in as broad and global a context as possible, with standards coming from the leading practitioners, and with a broad effort to inform not just G-10 countries, but all industrial economies and the emerging market economies of the need to adopt whatever was appropriate for their environment while holding on to the best possible risk-management standards, the best capital standards.

Those two things were related. It wasn't simply choosing the right level of capital, but understanding counterparty risk, liquidity risk, interest rate risk, and concentration risks. There were a full range of risks that came to life in those early crises, particularly insofar as they dealt with banks and markets, because if you think about what happened to LTCM—though it was not a regulated bank—there was an issue of its inability to unwind positions it had taken, because markets in which it was dealing were quite illiquid. At the end of the day, the illiquidity reduced the value of its equity, which effectively was its capital. The same kind of problem could have hit a regular commercial bank.

It was the interesting combination of a new range of risks and a thin capital base that undercut LTCM. It brought to life in my mind, and maybe in other people's minds, the

interaction between the capital requirement being determined by the risk incurred by the institution and the desire to have good risk management. Though it was implicit in what was happening at the moment, it became more explicit and more pressing as I got more heavily involved in Basel II. Looking back, LTCM and the Asian crisis reinforced the importance of Basel II, as opposed to the other way.

MR. SMALL. During these first crises, were there internal conflicts between the free-market approach and the role of regulation? Did you see more of a need for supervision and regulation from the government side or think government had done too much and had caused some inefficiency?

MR. FERGUSON. For me the lesson was the word “balance.” If you think about what happened in that first series of crises, there were clear policy mistakes where the government intervened too much in markets, where the Thai government was trying to keep the exchange rate of the baht relatively fixed contrary to what good economics would have allowed—and what the market would have allowed, of course. That was a sign that government intervention in markets can be detrimental, if it’s not done appropriately. On the other side, though, there were cases of institutions and individuals who didn’t have the right set of incentives to do the risk management that we’ve talked about—to understand their counterparties, to think through broadly a range of things that could go wrong, including the inability to exit a position. There was a role for the government to create incentives to get the private sector to think about all of those things.

I have adopted—it has emerged over my tenure here at the Fed—a middle-of-the-road approach towards regulation. First, get the government out of markets as much as possible, so that one lets market signals play through. Second, use the power of government to create

incentives for businesses to think about counterparty risk, as an example, or a full range of tail risks that might occur to create incentives for stress testing, for example. And third, to have government come in with fairly strong regulation on behavior—not just to give the right incentives but to manage behavior. One of the lessons that I took from my early days here was that there’s an important role for the government to provide the right set of incentives. There’s an important role for the government to limit its intervention in places where markets are working well.

We have an important role in crisis management, some of which is monitoring crises, but some of which is moving actively when it is time to respond to a crisis. The Fed tool is very powerful. If you think about what we did in moving interest rates during the first year or so, it wasn’t very much in the scheme of things. But a few 25-basis-point moves plus the right set of words and some active monitoring, and we ended up getting at least the United States and most of the globe through what could have been a terribly tumultuous time. An important lesson for any central banker is that the interest-rate tool, when used at the right point and combined with the right set of words, can have a positive effect in turning a potentially unstable situation into one of stability.

A final lesson is something I already talked about, which is the role of central banks and financial stability. The financial stability role is becoming much more central, at least in my experience, and 1998 was the first time that came to life. It puts, to my mind, a greater premium on monitoring what is happening in financial markets and in the financial infrastructure, and it raises discussions on payment systems, clearing and settlement activities, and risk management to a level that is at least as high as the discussion we have about macroeconomic outcomes in the economy.

Year 2000 (Y2K)

MR. SMALL. After those first two years, there are probably many things that you saw on the horizon like the Year 2000 (Y2K) computer problem.

MR. FERGUSON. My first big project was Y2K. Everyone could see it coming, but no one quite knew what it involved. My involvement was primarily international. The Bank for International Settlements (BIS) had created a committee called the Joint Year 2000 Council in April 1998. It had been chaired by Ernest T. "Ernie" Patrikis, who was then the general counsel of the New York Fed. When Ernie left, the New York Fed president, William "Bill" McDonough, representing the BIS at that point, asked me to take over, and I did so in July 1998. It was from my standpoint quite an honor because I had been a relatively new kid on the block, unknown to anyone in the System when I became a Governor. There had even been some stories that Chairman Greenspan was not eager to have me join the Board. Here I was a year and a few months into it, and I was asked to lead this large international committee that brought together regulators from around the world. The only problem was, although we had a committee, we had no particular work plan. We had to build all of this completely from scratch, at least at the international level. The United States had already been thinking about it; the Fed had already been thinking about it. But internationally, the landscape was a little more barren.

The work called on and built upon some of the skills that I had developed at McKinsey in organizing large numbers of people and projects, thinking about what outcomes one wants to have, and moving the committee in that direction. I decided that what the Joint Year 2000 Council would do best was to inform the regulatory community about the issues dealing with Y2K and to work through the regulatory community to incentivize banks and, more generally, financial institutions to be prepared, and to interact as best we could with other critical

infrastructure, electricity, water, et cetera, which were all going to be important in keeping things running.

I also decided that this should be primarily an effort to share practices and discuss issues, as opposed to having smallish workgroups and presenting lots of papers. I thought that there was a huge amount written about Y2K—some of it was going to be hype—and that we wouldn't have the technical knowledge that we could bring to bear. What we could do best in the international community was inform ourselves of the technical knowledge that was there and provide an incentive for supervisors around the world to talk to their banks and institutions about their degree of preparedness.

Executing that strategy involved my chairing and hosting a large number of meetings in many different jurisdictions to keep other regulators informed of the latest technical knowledge; to share the kinds of information that we were sharing with banks in our individual jurisdictions; and to keep the global regulatory community informed of the practices being adopted in the United States, the United Kingdom, Australia, and other places that might have been a little more forward-looking on this matter. It was a way to make sure that the leading-edge institutions were educating the lagging institutions or regulators in other parts of the world. I thought of it as a mutual education operation with a small element of outreach.

I was asked to give a lot of speeches that followed naturally from the role, but the main part was the internal one within the regulatory community of sharing best practices of how we were dealing with our banks to help them move along. The good news about this was that I joined Mike Kelley in overseeing Fed preparations. I ended up being a natural liaison between what we as a central bank and regulator were doing and saying and what was happening in the rest of the world. That got me heavily involved in thinking about things such as currency

availability, for example; the remediation of our own critical systems, including important payment systems that we run; and the communication within our own institution to determine who would be here, what the various roles and responsibilities would be, and our own degree of preparedness. So it broadened from international back into domestic, as opposed to going the other way.

In any event, it worked smoothly. I said to my colleagues who worked on Y2K, “We will never be applauded because one of two things will happen. Either it will go smoothly, and everyone will wonder, ‘Gee, what were you worried about?’ or it will go badly and everyone will wonder, ‘Well, what were you doing—nothing?’”

There was always a certain amount of criticism that there was hype—actually there was some hype—around Y2K. I don’t think the hype came from the regulatory community. We were pretty well-balanced. Much of the hype came from people in the private sector who were trying to make money out of creating a sense of uncertainty. But we put the banks in a very good position—obviously we got the central banks in a good position—and it worked well.

I remember well the night of New Year’s Eve in 1999. I went to dinner at a friend’s house in Georgetown. There were a couple of journalists there, and there was back and forth about whether or not this whole thing was overdone, and there was some skepticism. I ended up leaving the dinner party at around 11 o’clock, going to the Board, and monitoring what was happening around the world. We had done a great deal of work on the day itself. We were all here during the day as well as in the evening, and we could see that things had worked in Sydney. The lights were on, and we watched the lights going on around the globe until the rollover finally hit here. And it all worked very well.

During that period, we also had a series of conference calls to talk to regulators and see if there were any problems. There were a small number of glitches that emerged. I remember a few in Europe in particular. The good news was that they were relatively small; the bad news was that there were any at all. One of the ironies was that there were some regulators who said we should publicize the small things that had gone wrong to validate the work that we had done. I thought that was rather uncalled for, but enough things happened to give me a solid sense that had we not pushed the financial institutions and their support functions to think about remediating their systems, there was a real risk that something somewhat bigger might have happened.

As I look back on it, the Y2K project was helpful to me personally because it allowed me to build a network of regulators, central bankers, and commercial bankers around the world who had seen and worked with me on a finite, important project. I recall giving a few briefings to the G-10 governors at the BIS. That was the first time most of them had seen me in action. I recall distinctly the first briefing that I gave, where I talked about market indicators of stress that one could see using various risk spreads that I worked on with people here at the Board. Chairman Greenspan was sitting in the audience around the G-10 table. He came up to me afterwards and complimented me on how well that little presentation had gone, which was obviously a good thing in a personal sense, but also an important turning point in our relationship. He could then feel confident in trusting me to represent the Fed in international matters. I had also by that time become the Vice Chairman of the Board, and we had to sort out this issue of who's going to do what internationally. The fact that I could handle myself well in that environment made it much easier for him to agree to continue to have me represent the Fed alongside him in international matters.

MR. SMALL. You mentioned that you left the Georgetown dinner party to “monitor.” That could be anything from you coming back to a dark office and turning on CNN to some war room plastered with video consoles.

MR. FERGUSON. We were in-between, actually. Stephen R. “Steve” Malphrus and the staff here had taken over the large dining room upstairs in the Martin Building and built this platform—a “fishbowl” I think we called it. And around the room we had a huge number of people in touch with market participants, in touch with the clearing and settlement systems, and in touch with other regulators domestically and internationally. It was an exciting kind of “war-room” atmosphere.

Many of the other crises, or near crises, that we have dealt with had been primarily in the hands of the Research Division, Monetary Affairs, and International Finance. This Y2K issue brought to the fore the people who really do think about the infrastructure, domestically and internationally. There were a number of people in the Reserve Bank Operations and Payment Systems areas who got a chance to show their leadership and analytical skills. People in Supervision and Regulation were heavily involved in that obviously. People on the management side of the Fed were involved. It was the first time I had a chance to work with those people in something so intense, and it created a bit of a bond.

It also was an important part of my education in that my eyes were opened to the deep interdependencies that exist in the financial architecture. For example, the big institutions in the payments systems are dependent on electricity to power the air conditioning they need to keep their computers running; they need functioning transportation systems to get their people to work—and obviously telecommunications are vital. These things are extremely important to our own payments systems, but more broadly to the global payments systems.

An important lesson out of Y2K is that you have to broaden your scope beyond banking, clearing, and settlements, to a range of important dependencies. That came into play very visibly and obviously on 9/11.

So Y2K was for me personally, and to some degree for the Fed broadly, a key learning opportunity—working domestically, internationally, interagency, and across the whole U.S. government—regarding these various dependencies. It gave the Fed a chance to do what it does so extremely well, which is to lead a huge amount of activity that occurred not just in Washington but internationally.

So as I look back on it, the Fed did extraordinarily well. I think I did well. It gave us all a chance to grow and expand, and it was also an important opportunity to learn about what was going on and to create a solid sense of camaraderie among those of us who were monitoring this for the first week or so and then standing down gradually after that.

It's important to recognize that the Y2K activity didn't stop at noon on January 1, 2000. We kept that war room up and running for about three more months. We kept monitoring, and there were a few little glitches that only showed up a bit later during the year. It was an important learning opportunity for all of us, and a place where, again, the Fed did extraordinarily well.

MR. SMALL. In the war room, were there any white-knuckle moments or false alarms?

MR. FERGUSON. No, it all worked smoothly. We were very busy, and there was a high degree of energy and adrenaline. But the fact that we could see the lights on and people reporting no major weaknesses was, from my standpoint, an incredible relief.

G-10 Study on Financial-Sector Consolidation

MR. SMALL. As that receded, did you get back into your regulatory issues and Basel II?

MR. FERGUSON. I didn't pick up Basel II until 2002. My major role after Y2K involved another international activity—a G-10 study on consolidation in the banking industry that was done by the deputies of the G-10 ministers and governors, which brought together central bank deputies and the finance ministry deputies from 11 countries. That gave me a chance to work with Myron L. Kwast [former senior associate director, Division of Research and Statistics] and other people in the Research Division—the folks who deal more with the micro issues and the bank structure issues—as opposed to the macro people. It was a great learning opportunity for me because we got to delve into one of the important drivers of banking, which was this consolidation that occurred, and continues to occur, both in the United States and internationally.

It ended up being a large project. We had workgroups comprising central bankers, central bank deputies, and research staff from all the G-10 countries, plus others. It required a fair amount of traveling to the various central banks to do work. We created a nice report out of which came two or three academic-quality papers that have been published in peer-reviewed journals. It helped me to understand an important issue, and it reinforced the notion that we had to modernize capital regimes because the forces that were driving this consolidation were clearly going to continue. One could easily see that we were going to have a world with larger and larger financial institutions.

So that was my next big international activity; it took up much of 2000 and the early part of 2001. I wasn't at that point involved in Basel II. Larry Meyer was the Governor in charge of that, and it was heavily driven by the staff as well.⁵ The rest of 2000 heavily solidified me on the international side of things. Post-Y2K, I could have easily gone back into doing purely domestic

⁵ Laurence H. "Larry" Meyer served as member of the Board of Governors from 1996 to 2002.

activity, but I was drawn into this international activity. It defined an important part of what I did as Vice Chairman.

The G-10 workgroup on financial-sector consolidation again allowed me to build relationships more broadly in the research departments of a number of central banks around the world. So it was another good year, from my standpoint.⁶

Monetary Policy: Interest Rate Movements in 2000 and 2001

MR. FERGUSON. In 2000, in the world of monetary policy, we were clearly in the mode of raising rates. After the emergency policy easings to deal with LTCM, the Russian debt moratorium, and the Asian crisis, we had started raising rates in the middle of 1999; I don't remember exactly in which meeting. We took a short hiatus at the last meeting of 1999, and then we raised a bit more in 2000 to deal with an economy that was growing rapidly. We didn't see inflation, but inflation pressures were thought to be building.

That was also a period when we got into a number of debates that stay with us to some degree to this day on whether or not one should be targeting asset prices. I am firm in the view that one shouldn't target asset prices. But we were raising rates to deal with an economy that was growing quite rapidly, in part because of the equity markets at that point. Monetary policy at that stage was pretty interesting.

We got rates up to about 6½ percent. During this period, I was also heavily involved in the issue of FOMC communications. An FOMC workgroup was formed in 1999, the first one, and a report came out in 2000. We should come back and talk about that. So 1999 and 2000

⁶ See, generally, Roger W. Ferguson, Jr. (2001), "G-10 Study of Financial Sector Consolidation," speech delivered at the Task Force on Financial Sector Consolidation press briefing, London, January 25.

were busy times for me, because I had Y2K, the international activities, and monetary policy issues.

MR. SMALL. Leading into 2001, did the financial modernization legislation called the Gramm-Leach-Bliley Act of 1999 have much impact on the Fed or on your work?

MR. FERGUSON. Gramm-Leach-Bliley had a great deal of impact on market structure. The Chairman negotiated most of that, primarily with the Secretary of the Treasury. I got a few calls from the Secretary and a few calls from the undersecretary to push along our posture there, but the Chairman was mainly doing that. My focus was on those international matters and the issue of FOMC communication. So that was how I spent most of 1999 and 2000. I didn't touch the Gramm-Leach-Bliley legislation.

From a monetary policy standpoint, the year 2000 was relatively eventful. From a communications standpoint, it was an eventful year because we had gotten rates up to about 6½ percent. We kept rates there for some time, the stock market came off quite dramatically, and there was a great deal of debate back and forth in the FOMC about what we should do and what we should say. Some of those transcripts are now out, and some of those debates for the Committee were fierce and intense.

We ended up not doing much to move our interest rates, and the most important debates were about the so-called bias. In December 2000, we eventually moved from a bias with a focus on inflation towards one on economic weakness. The monetary policy issue was: How do we understand asset prices and their impact on the real economy? In hindsight, one of the things that perhaps we should have understood better was not just what a macroeconomist could see, but how to read the anecdotal information and the data that were coming in a more qualitative

form, because it was quite clear that the economy was weakening relatively quickly towards the second part of 2000, and our interest rates didn't move much at all.

I recall in the December meeting of that year—I think the transcript bears this out—it was clear that we were aiming to move rates down, although it wasn't quite clear when that would occur. On December 27, Chairman Greenspan called me to say that he thought we should be prepared to move the first business day of 2001. I had been prepared to move even in November or December, hence I was very much supportive of that first move down. We took fairly aggressive action in 2001, moving down the rate from 6½ percent till the end of the year when it got down to 1¾ percent, with a number of 50 basis point moves, including some intermeeting moves. This was extremely important, because it reinforced the lessons from Y2K, LTCM, and the Asian crisis that one should be prepared to move fairly aggressively to deal with the potential fallout from financial instability.

A question that emerged was: Did we overstay with high interest rates during 2000 out of some fear of reigniting the dramatic run-up in asset prices? If you look at the transcripts, there's some evidence that a number of people were concerned that if we started cutting rates in 2000, we'd see equity prices start to reflate. So it was certainly on our minds. While we weren't targeting equity prices, the interaction between monetary policy, equity prices, and the real economy was an important part of the debate at the time.

From my standpoint, the main lesson was the power of monetary policy, if applied aggressively, to offset some instability in the markets. In the midst of all of that, on September 11, 2001, we had the terrorist attack that made all these other things pale in comparison. But it reinforced the power of monetary policy communication and tools.

MR. SMALL. With a run-up in asset prices in the U.S. economy, the overall macro effect is that people feel wealthier because of the rise in the stock market. Did you see effects on balance sheets or some financial plumbing issues or incentive effects or discipline effects that you were concerned about? Did your previous work help you understand some of this better, or do you think it was just more of a macro asset bubble issue?

MR. FERGUSON. It was a little bit of both. Certainly, we had a macro asset bubble concern. There was also a risk-taking/risk-appetite concern in the economy overall. The system functioned well, so the infrastructure functioned well. Since most commercial banks in the United States are not heavily involved in trading—some of them obviously are, the big universal banks are—the run-up in equity prices was not a stability concern in how depository institutions are functioning or the liquidity in markets. It was much more a concern about what happens if you have a bursting of the bubble, and that drives consumer confidence to change. After the bursting of the bubble, markets and payment systems still functioned well, and there was adequate liquidity in the system. The stability concern was not in the infrastructure or regulatory spheres; it was much more in a broad macro sense. Internationally, it created a problem in that a number of insurance companies overseas had, and to some degree still have, a fair amount of exposure to equities as opposed to fixed income. So overseas they had a much bigger problem with institutional stability than we had here. I look back on that period, and it was, to my mind, more about macro instability rather than the infrastructure kind of instability.

But, again, we handled it pretty well. One could debate whether we should have started cutting rates a little earlier or whether having moved in November or December versus January 3, 2001, would have made much difference. It is hard to say. We get the same criticism about having raised rates perhaps a little later than we should have in 1999, having gotten rates

down to deal with the LTCM crisis and the debt moratorium. Some people criticize us for not having raised rates earlier, but, again, it's just a question of a meeting or two. I don't think a month or two or three would have made a big difference.

Basel II

MR. SMALL. You've mentioned that you took over Basel from Governor Meyer. Could you explain the status of it then?

MR. FERGUSON. Larry Meyer's term ended January 31, 2002. Ed Ettin [former deputy director, Division of Research and Statistics] came to me around that time with this incredible offer to be involved in the most important effort ever at the Fed [laughter], and I said "yes." I did think, from my earlier experience internationally, that getting the incentives right for bankers and getting the level of capital right in the global banking system were extremely important. I think Ed was surprised that I took it on, because Basel II was, even at that point, in sensitive international negotiations, which anyone could see. There were disagreements between the United States, led by the Fed, and the German colleagues. The first negotiations that I had were with Jochen Sanio, who is the head [2000–12] of the German regulatory agency called BaFin [Federal Financial Supervisory Authority].

As I recall, we met over dinner in the Martin Building. The focus of the discussion was on the capital that banks should hold for loans to small- and medium-sized enterprises, which had become a hot political issue in Germany to the point that the Chancellor gave two speeches on Basel II effects on lending to small- and medium-sized enterprises and the need to keep the capital levels where they were. And so, as was often the case with Basel II, we ended up at a perfectly reasonable middle ground. Jochen didn't get all that he wanted in keeping the capital standards relatively low for loans to small- and medium-sized enterprises, and the United States

didn't get everything it wanted either. The negotiations of Basel II were a prime example of give-and-take and a prime example of how political Basel II was.

Having gotten through the negotiations and having reached that compromise, we were optimistic that Basel II—which had appeared to be in the throes of death—was again alive and well. That was February [or] March 2002. The compromise was, in [a] microcosm, a prime example of all the various issues concerning Basel II.

At that time, the main sticking points were between the United States and Europe. On the U.S. side, only two regulatory agencies had to coordinate—the Fed and the OCC (Office of Comptroller of the Currency). There was a need to bring along the Comptroller of the Currency and his staff early on. Our staff was doing a lot of tough work. In the early days of my involvement with Basel II, the real challenge was more international than anything else. As Basel II moved along, it became clear to me that we had tough negotiations domestically as well as internationally. By the end of 2002, the main issues were disagreements between the Fed and the OCC about how we should progress.

The rest of the world started to grow anxious that the United States was less committed to Basel II just as they had become more comfortable with the framework as it was identified. Towards the end of 2002, we noticed that the approach of having only the largest banks move to the most advanced of the three flavors of Basel II was causing some concern here from the smaller regional banks about competitive inequities and whether or not they'd be left behind.

At, I think, about the year 2002, as I was learning about Basel II, many of the conflicts and uncertainties that emerged over the rest of my tenure—2003, 2004—were just starting to unfold. But it was a period when we were making a lot of good progress on Basel II. The principles were well established—give the right set of incentives, have risk-based capital—and

the Basel I Accord was outliving its usefulness. No one doubted any of those principles. The debates were about how to develop capital standards for a variety of different portfolios, as opposed to challenges at the highest-principle level.

The rest of my time on Basel II, which was basically 2003 to the middle of 2004, was two steps forward, one step back, one to the side—just very hard slogging, trying to build a consensus portfolio by portfolio (real estate and credit card portfolios, for example). We were starting that here first: building up consensus within the Federal Reserve System between the Research Division, the guys who do the micro research; the Division of Banking Supervision and Regulation; and, to some degree, some of the Reserve Banks. The New York Fed was also heavily involved, and, for some portfolios, the Philadelphia Fed got heavily involved.

So the process of building internal consensus about the positions the Fed wanted to take—building U.S. consensus initially with the OCC and then with the FDIC (Federal Deposit Insurance Corporation), and then building international consensus—must have taken half my time. At least it felt like half my time, trying to find that middle path. I was heavily dependent on the technical support from the research staff and the actual modeling and the various frameworks and the formulas for portfolio-by-portfolio review. I added value by acting when the staff could not find consensus. They would come to me with two or three options, and I would give my advice on which one seemed the most reasonable and the one that would get through the other agencies. I was figuring out how to keep it moving forward and negotiating and presenting positions both domestically and internationally.

I had a solid sense that this thing would get done. The staff had been working on Basel II for many years by the time I got involved. I wouldn't describe them as being "burnt out"—that's not fair. But it was such an incredibly hard negotiation that there were many times when people

weren't sure they would get to a common framework document. It was incumbent upon me, as the leader, to leave a solid sense that, while we were occasionally facing some tough negotiations, we would end up in a very good place.

There are a couple of points to make about Basel II. I didn't know it at the time, but since then, a number of people have said that Basel II was close to dead when I got involved in early 2002. I couldn't see that. I saw that we had some issues that had to be dealt with, and it was hard. But whether or not it was alive or dead, in retrospect, only people who had been with it from the beginning could see.

To continue the story, Basel II was a story of tough negotiation, portfolio by portfolio, within the Fed across the divisions involved, with New York, with other regulatory agencies within the United States, and internationally. All that came home to me during the first testimony that I gave on Basel II in early 2003. I thought we were making pretty good progress. However, that hearing was a sea change in the way Basel II was perceived and in the way that I perceived where we were. We had gone into the hearing seeing it as a tough slog and heavy negotiation that was making forward progress. We thought we were "all in this together." But we came out of the hearing recognizing that the Fed and the OCC were in very different places. The Congress got to see an interesting display of disunity among the regulators and could sense that something interesting was happening, and they wanted to pursue that.⁷

So, in 2003, the tone around Basel II changed dramatically to being much more politicized and much more contentious between the Fed and the OCC publicly. There was greater interest in what we knew about the quantitative impact and, in particular, whether it

⁷ Roger W Ferguson, Jr. (2003), "Basel II," statement before the Subcommittee on Domestic and International Monetary Policy, Trade, and Technology, Committee on Financial Services, U.S. House of Representatives, February 27.

would be detrimental to small- and medium-sized banks, to lending to small enterprises, or to real estate, et cetera.

All of that called for a more sensitive approach, but no less of a commitment on the part of the Fed to get this done. It became clear to me that if we wavered at all, the whole U.S. team would be much less certain. It also called for a very different negotiating posture with the OCC, where we could spend much more time understanding its issues. It called for more outreach to different parts of the industry, and it called for a different type of leadership from me. I let our staff know that we were going to do the right thing and bring forth what I would describe as our “best science” on all of this and not get bogged down in the politics. I saw in a number of other agencies what appeared to me to be staff members who were engaged in a fair amount of politics and leaking things to Capitol Hill. I thought that the Fed was always better positioned by being technically capable and bringing the best science to bear, but 2003 was a very tough year on Basel II in almost every dimension.

As I look back at it, we could have been more politically astute. We could have handled congressional staff relations a little better. Although our outreach to the banks was good, I wish we had gone through the trade associations here, as opposed to going directly to the banks, because that would have brought them on board. Technically, we ended up having—given what we knew at that time—a pretty good product. And because there was so much anxiety about whether the United States was firmly on board after the excitement of this hearing, in the international negotiations we ended up getting most of what we wanted on the technical elements.

We had another hearing in late 2003 with the Senate that went a little better.⁸ Senator Paul S. Sarbanes pushed us to make sure we understood the competitive impact. In reality, we didn't understand it very well, so we created a process with four different work streams—again, being very scientific—to look at competitive impact across different portfolios: mortgages, credit cards, real estate, and small business. Those papers all came out in 2004, and by and large, they showed from a more technical standpoint that there may have been some small elements of competitive impact that we needed to deal with, but nothing, to my judgment, very dramatic.

The year 2003 was an interesting watershed year for Basel II, where it moved from being an important regulatory initiative—with the supervisory agencies pretty much in the driver's seat and a lot of negotiation being done—to being a very large public issue, with the Fed and the OCC clearly not agreeing and the Congress getting more engaged in the oversight role that belongs to them. The Fed staff performed well, in that the staff stayed focused on the science of it and less focused on the politics of it.

For Basel, 2004 turned out to be a successful year. We went into 2004 not knowing exactly what the state of things was going to be because of the politics. We ended up, by the middle part of the year, having reached a framework agreement that the OCC seemed to be happy with, that the FDIC seemed to be happy with, and that the Fed obviously was happy with. The European regulators were also happy with it. That ended my participation, getting to this framework document. Everyone thought it was okay. It was clearly the result of some hard negotiation and compromise. We had to understand the quantitative impact of it, but I would say there was, again, this incredible sense of relief that something came out of this very large,

⁸ Roger W Ferguson, Jr. (2003), "Basel II," statement before the Committee on Banking, Housing, and Urban Affairs, U.S. Senate, June 18.

complex process that many people thought at many points would never succeed. We actually came to a point where we had an international framework that everyone agreed to.

Subsequently, there have been questions about quantitative impact and other things that have happened that I have not been involved with. As I look back on it, we managed to snatch a credible victory from the jaws of defeat. There were many times when it looked as though it just wouldn't come together, but it did. There were many times when it looked as though the Congress would legislate a change in structure that would limit the ability of the regulators to negotiate, and that would get the Treasury involved and create a committee that had to formally vote. There were a few times when it looked as though the Congress might stop the forward progress in a more direct fashion. But none of those bad things happened. We ended up in mid-2004 with a framework document that worked out fine.

While this may sound to some degree ironic or surprising, on the regulatory structure, though, it was painful and difficult. The need to continue to negotiate with the OCC was helpful. They saw things differently than we did. It forced our staff, through moments of great frustration, to defend our points of view. As a Governor here observing that process, I too was frustrated by it, but having a skeptical set of eyes at another agency turned out to be helpful. We would have gone much more quickly, for sure, had the Fed been totally responsible for this. We would have gotten an extremely good answer, without question. But having to negotiate it out with the OCC slowed things down and forced us to think that much more clearly about why we didn't like a given option or approach. That gave me some comfort that the staff was being stretched and pushed, and that the outcome that we came up with was one that had been tested fully.

The reason I raise it as we sit here in 2006 is that there are issues about regulatory structure. Some people will argue that we should have one single regulator. For all of Basel II's flaws and process frustrations, we certainly came up with a product that had been heavily tested and heavily negotiated. We faced a huge amount of skepticism and still overcame that.

I wouldn't look back on Basel II with anything other than the sense that it came to a reasonable outcome. But I must say that, other than 9/11, it was the hardest activity I've had to go through here at the Fed. And it will be perceived that way by a number of people. It's a very tough issue. But we're still making forward progress, and the principles of Basel II—holding capital that reflects the real risk in the banking books and providing incentives to large and complex institutions to enhance their risk management and risk measurement—are principles that have not been questioned by anyone.

Thoughts on the Future Structure of Banking Regulation in the United States

MR. SMALL. Looking forward, do you have any advice on the structure of banking regulation in the United States?

MR. FERGUSON. The advice I have is that the Fed definitely has to stay involved in this. We brought first-rate technical skill to Basel II without political motivation in a way that no other agency can bring to bear. Our ability to bring together an incredibly powerful team—Ph.D.-level economists from the Research and Statistics Division, Federal Reserve Bank staff doing day-to-day supervision, and supervisory policymakers from Washington—is unmatched in Washington. This reinforced my view that the Fed has to be part of the supervisory and regulatory landscape here. It also reinforces my view that the Fed shouldn't be the only institution engaged in this, because we've got a certain point of view, and it's important to push

against other views to get to a good outcome. I ended up in a fairly conservative, status quo position on the structure of supervision.

MR. SMALL. What about keeping a significant part of banking regulation and monetary policy housed in the same institution?

MR. FERGUSON. I continue to think that's important not just because of Basel II, but because of my Y2K work and because of 9/11. The great strength of having monetary policy and supervision housed in the same place is financial stability in crisis management. That's the place where a central bank has credibility to the banking industry and credibility in monetary policy. It's in those crisis moments that it really matters.

April 13, 2006 (Second Day of Interview)

MR. SMALL. Today is Thursday, April 13. This is the second interview session with Vice Chairman Roger Ferguson. I am joined today by Jeff Marquardt; Dave Skidmore and Ben Hardaway [Office of Public Affairs]; and Brian Madigan [Deputy Director in the Division of Monetary Affairs].

Nomination to the Federal Reserve Board as Governor and Then as Vice Chairman

MR. SMALL. Mr. Vice Chairman, when did you start developing your interests in macroeconomics and monetary policy?

MR. FERGUSON. I developed my interest early on. In 1966, when I was 15, President Lyndon B. Johnson nominated Andrew F. Brimmer to be a Governor on the Federal Reserve Board. He was the first black member of the Board of Governors. He had been an assistant secretary of Labor and a professor at the Wharton School. I grew up in Washington, and that story was important news. William McChesney Martin, Jr., was the Chairman of the Fed (1951–70). He specialized, as much as any Chairman, in colorful commentary on the economy and monetary policy, including the famous quote about taking away the punch bowl.⁹ So as my general interest in economics was emerging, it was at the same time that the Fed was in the newspaper quite a bit.

By the middle of high school, I hadn't decided to be a Fed Governor—that would be pretty presumptuous for a 15-, 16-, 17-year-old to decide—but my interest in economics was pretty firm. I went to Harvard, studied lots of different kinds of economics, and got to know Ben

⁹ In an October 19, 1955, speech, Fed Chairman Martin said, "In the field of monetary and credit policy, precautionary action to prevent inflationary excesses is bound to have some onerous effects—if it did not it would be ineffective and futile. Those who have the task of making such policy don't expect you to applaud. The Federal Reserve, as one writer put it, after the recent increase in the discount rate, is in the position of the chaperone who has ordered the punch bowl removed just when the party was really warming up." Speech delivered at the New York Group of the Investment Bankers Association of America, Waldorf Astoria Hotel, New York.

Friedman, who was what's called a junior fellow—basically, a senior graduate student. We lived in the same house and became friends. My conversations with Ben, in addition to my studies, kept me interested in money and banking while I was studying a full range of economic topics.

Then in 1996, 1997, I ran into Lawrence H. “Larry” Summers, who I had known from graduate school. He was a senior person in the Treasury Department. He asked if I wanted to come to work with him at the Treasury. I told him, “No, I want to join the Fed.” There were two seats open at that time. In our first conversation, Larry chuckled and said a lot of people want to join the Fed. He called back a few days later and said, “I’m serious. I really want you to come and work with me at the Treasury Department.” I said that I was equally serious. I wanted to work at the Fed. I didn’t want to be part of the Administration. And he said, “Well, I’ll think about it.” In a third conversation he said, “Okay, come to Washington. It’s a long shot, and there are lots of people on the list, but you might as well talk to some people.” So I did.

As is often the case, there was a certain amount of tension between the Treasury Department and the economic policymakers in the White House. Since I was introduced through Larry Summers, I was thought to be a Summers guy. The White House was a little standoffish for a while, particularly the National Economic Council (NEC). But I had one person willing to give me a fair hearing—the chair of the Council of Economic Advisers (CEA), who had been my college professor, Janet L. Yellen.

I had a nice interview with her. We talked about a number of important topics in economics, including a paper that had just come out by George A. Akerlof, William T. Dickens, and George L. Perry on the right level of inflation. When it came time to think about who my allies were, it was clear I had Larry and Janet. The third person to be a part of this scene was Eugene B. “Gene” Sperling [Director of the NEC], who at that time didn’t know me. As I said,

there is occasionally tension between the Treasury and the White House. When I went to see Gene, he actually had to delay seeing me due to his hectic schedule. I sat outside of his office for an hour and a half, insisting that I was going to have this interview. Gene, who was a smart and kind person in many ways, finally settled down from his busy schedule and said, “Fine, if you’re going to stay here for an hour and a half, you might as well come and talk to me.”

After about an hour, I won him over. I went from being “Roger who?” to “Roger, Larry Summer’s friend,” to the nominee of the William J. Clinton Administration. It took a long time. To this day, Gene and I joke about his tight schedule that day. That’s the story of how I got to the Fed. It was not the usual direct route through academia. It was a combination of who you know and what you know—and a certain amount of perseverance on my part to not be dissuaded by either my friend Larry Summers or my now-friend Gene Sperling.

When I got to the Fed in late 1997, the funds rate hadn’t moved much.¹⁰ What I recall most about the role of monetary policy during the time I’ve been here falls under two categories. First, we use our monetary policy tool—the federal funds rate—to deal with financial instability as much as we have with inflation and growth. The dual mandate of low inflation and maximum sustainable growth has been the primary objective that has been driving monetary policy. But the thing that has played through most frequently for the dual mandate is the possibility of financial instability throwing growth off track.

We talked in the first interview about the Russian debt moratorium, the Asian crisis, and LTCM. They were important background to my first meetings at the Fed. That reinforced the

¹⁰ In January 1996, the funds rate was lowered by 0.25 percentage point to 5.25 percent. In March 1997, the funds rate was raised from 5.25 percent to 5.5 percent and was still at 5.5 percent in November 1997 when Roger Ferguson came to the Board.

notion that the federal funds rate is quite important for the dual mandate, but it is equally important to be used to achieve financial stability where possible.

Second, the elements of communication and forward-looking components of monetary policy have come into play. The range of tools for monetary policy is not simply the movement of the target fed funds rate, though that's the most important thing. But it is supplemented by what we say to describe the rationale for our actions, what we say about concerns, and any indication we might give about future action. Both financial stability and the communication component to monetary policy have proven to be almost as important as the actual movement of the fed funds rate. Nothing is more important than setting policy itself, but communication is coming into its own as an important element of policy during the time I've been here.

MR. SMALL. Were those dimensions part of the discussion of your nomination with the White House? What were the elements of White House concern?

MR. FERGUSON. The element of concern was the more traditional focus on the dual mandate of monetary policy. On the other side was the whole discussion about banking structure. At that stage, efforts to repeal the Glass-Steagall Act of 1933 were very much alive. My discussions about banking structure, financial stability broadly defined, and banking policy were primarily with Jerry Hawke. He was the undersecretary of the Treasury for domestic finance at the time. For the CEA and the economists, the discussion was more about the dual mandate and the role of monetary policy. The two things did not intersect in the discussion of my nomination as much as they came to intersect, at least in my mind, during the eight-plus years I've been here at the Fed. It's a reflection of the reality of the times. Though there had been many points of financial instability before my joining the Fed—1987 was a prime

example—I don't think that linkage was as clear in the minds of people outside of the Fed as it was to those who had been in the Fed.

During the time I've been here, there have been a number of crises that called for monetary policy response. Not everything did, but a number of them did: We've talked about 1997, 1998, and the Russian debt moratorium, LTCM, et cetera. Obviously, September 11 was a crisis that clearly called for a monetary policy response. The world has become more alive to this issue of financial instability and how that plays into monetary policy as well as the dual mandate. We shouldn't think of them as separate. Financial stability concerns drive monetary policy only insofar as there is a spillover effect—potential or actual—to either growth or inflation. It is not that we are using monetary policy to create certain conditions in the market independent of the question of whether or not there's a potential for spillover to inflation or growth. It is the possibility of instability leading to negative effects in the real economy. That is the place that brings monetary policy appropriately into play—to limit the risk of moral hazard, for example.

I shouldn't leave the impression that, during my tenure, monetary policy was being used just to create more stable market or financial conditions. It was being used to create stable conditions to maintain good results from the perspective of the dual mandate—low and stable prices and maximum sustainable growth. There's a linkage across the two, but in the discussions I had with the White House and the Treasury, that linkage was not nearly as visible as it would be today because of the experiences that we've had in the eight-plus years that I've been here.

MR. SMALL. During your appointment, was independence of the Federal Reserve a big issue?

MR. FERGUSON. No. In the Clinton White House and the Clinton Treasury, it was taken for granted. In prior Administrations, the question of external influence over monetary policy and the Treasury commenting on monetary policy decisions—either before decisions were taken or after—was more of a challenge, more of a problem. By the time I came on the scene in 1997, the Clinton Treasury had a well-established track record of not commenting directly on monetary policy. Everyone recognized the benefit of having an independent central bank—not just in a legal sense, but in the sense that its decisions were not being discussed by the President, the Secretary of the Treasury, or other people.

The only way that the discussion of independence came up was a clear recognition that I believed it was extremely important. There was no one that I dealt with in the White House or the Treasury who called that into question. It has never come up during the time that I've been here. It's been appropriately hands-off for both the Clinton Administration and the George W. Bush Administration on the one side and the Fed on the other side.

MR. MADIGAN. Were there any notable aspects of your confirmation process?

MR. FERGUSON. The hearings were relatively straightforward in the themes that were touched upon. There was one senator who during the various hearings—I've had four separate ones—was heavily focused on the question of my independence from Chairman Greenspan. That has been a perpetual theme, I'd say. Out of the four times I've gone through a confirmation process, two of them were notable for the role of politics in the process. Former Chairman Greenspan and I are the only people in the recent history of the Board who have been nominated by both Democrats and Republicans. President Clinton nominated me in 1999 to be the Vice Chairman and also to a full term as a Governor starting in 2000. He nominated me about a year before my term expired, more or less. The Senate was then controlled by Republicans, and the

Republican Senators did not want to vote on my nomination for a full term as a Governor. They ultimately decided to vote on me, and, with one exception, the Senate had no objection to my becoming the Vice Chairman. But they didn't want to vote on me to be a Governor. The argument was that President Clinton was within the last 9 or 10 months or so of his term, and that we should wait until a new President came on board.

MR. SKIDMORE. Did you sense that it was the Republican senators in general, or was it William [Philip] "Phil" Gramm (R-Texas), chairman of the Senate Banking Committee, in particular? Did you have a clear picture?

MR. FERGUSON. Well, Phil Gramm was the spokesperson, and, insofar as one could associate a particular name, it was his. If other members of the Republican leadership in the Senate felt the same way, I just don't know. By the way, I should say, I've seen Phil Gramm many times since then, and he keeps telling me it wasn't personal. He never once doubted my qualifications, since he allowed me to go on to be the Vice Chairman. It was clear that they were holding the seat with an expectation that the new President would nominate somebody from that party. It wasn't clear who the next President was going to be, but there was a possibility it would be a Republican. Then George W. Bush won the election, and there was a question about whether or not he would nominate me to a full term as Governor. He chose to do that, but the Senate Committee still didn't vote on me.

At that point, it was highly unusual, because the Republican President had nominated me, and the Republican-dominated Senate wouldn't vote on me. Then James M. "Jim" Jeffords switched his party of allegiance from Republican to Independent. That gave the Democrats a one-seat majority in the Senate. Senator Sarbanes became the chairman of the Senate Banking

Committee, and he immediately scheduled a vote on me. The appointment went through, with only one senator voting against me.

So twice in a relatively short period of time, politics played into my personal position on the Board. Through a certain amount of luck and the support of many people, the appointment process ended up being nothing more than a small hindrance to my position here. I would not describe anything else associated with my tenure as being heavily tainted with any kind of partisanship. In both cases, it had more to do with the dynamics of the Senate—and, to some degree, national politics—than it did with me personally. I have met all of these people since then, and there are no hard feelings. That's just the way life works, which is the right attitude to have. They were trying to give the winning party a chance to have as many important positions for appointments as possible.

Early Years as a New Fed Governor and Committee Assignments

MR. SKIDMORE. When you arrived at the Board, how were you welcomed on the FOMC? How did the other Board members, the Chairman, and other FOMC members integrate you into their group, the deliberations, and the work of the System?

MR. FERGUSON. Well, the System is a very collegial place. The Reserve Bank presidents, the other Governors, and the Chairman—at least during my early years, and it's true today—take all Governors pretty much at face value. You've been appointed by the President, you've gone through the Senate process, and you are a colleague. It's a club whose members, at least among the Board, are determined by other people, not by the club itself.

They were remarkably generous and kind to me, given the fact that none of them knew me. I had come out of a very different background. It started before I got here, when my name was floated and the President officially nominated me the first time, in 1997. The day after it

was announced, Vice Chair Alice M. Rivlin called me. The next day, Chairman Greenspan called to say he didn't know much about me, had heard some good things, and looked forward to working with me. In a broader sense, the welcome was supportive in the following way. I was sworn in on November 5, 1997. No one knew much about who I was.

A year or so later, Alice Rivlin announced that she was going to leave, and Chairman Greenspan strongly supported me to become the Vice Chairman. Though I wasn't well known to anyone, by working across a range of assignments—some of them less attractive than others—and by seeking ways to add value and to be part of the collegial nature of the institution, a number of people in the Reserve Banks and on the Board all thought that I should become the Vice Chairman.

I always look back on that and think, it's just a remarkable sign of how collegial and generous the Fed is, that within a year and a half of my joining the Board, a person of great distinction such as Alan Greenspan would come and ask me to be the Vice Chairman and support me to the Administration. He made it clear that he did so having polled the other Board members and a number of Reserve Bank presidents. It was a remarkably affirming support of the concept that I could earn the trust and respect of my colleagues to take this small leadership position, based purely on what they had seen of me for about a year and a half, as opposed to any element of reputation. It's a fine example of the Fed looking at people in a neutral, nonjudgmental way based purely on what they can add to the System, as opposed to who they were or what they were.

MR. SKIDMORE. How was it determined what work you would be involved in initially? How much of a role did you have in shaping that?

MR. FERGUSON. The process has been unchanged as long as I've been here, which is that one Governor interviews all the Governors, finds out what they want to do, develops a sense of what the consensus is, and then brings that to the Chairman.

In my case, it was Mike Kelley who asked me to join the committee that oversees the Reserve Banks, which was a straightforward and obvious thing to do, given some of my private-sector background. They also asked me to join the committee that deals with banking supervision and regulation. I made it quite clear that I wasn't interested in joining the consumer affairs committee, because I felt I had no particular expertise to bring there, as opposed to banking supervision or the operation of the Reserve Banks. So assignments were sort of a mutual decision, but they were approved by the Chairman, and that's the way it's still done to this day. It reflects the consensus nature of the Board in an effort to keep everyone reasonably happy across the seven members and to make sure that all the work that needs to get done gets done.

The other thing that they asked me to do shortly thereafter was to become the Administrative Governor for the Board. Unfortunately, the Administrative Governor position, at least at that stage, was still more a burden than an honor. I thought it was a great opportunity to make things a little better here. I'm pleased that, though no one talks much about it, some of the best things that I've done for the System had to do with the nature of the running of the Board, creating an environment in which we did more honest evaluations of employees, creating an opportunity to have different types of compensation reflecting market demand—for financial economists, for example—and creating a more family-friendly environment through the so-called 5-4-9 program, or “flex time.” Those are some of the things that we did during my tenure as Administrative Governor. They're not of great national importance, but they are

extraordinarily important in attracting and maintaining the best people we possibly can for the Federal Reserve System. So that's the story of the early committee assignments. It really was a reflection of what I wanted to do and what others wanted me to do.

I will always be grateful to Mike for allowing me to do the Bank Affairs Committee. It was hard work, but it's the one committee that gives you a chance to build credibility with Reserve Bank presidents outside of the context of the FOMC. For a person who is coming in relatively unknown, the opportunity to work with Reserve Bank presidents, first vice presidents, and others proved to be beneficial, because it's another way to build credibility.

We've already talked about some of the international things that I did. In those early days, I joined the Payment System Policy Advisory Committee, which was another way to build my interest in, and some capability in, the whole world of financial stability and the operations of financial infrastructure.

I was lucky in my committee assignments, because some of them were glamorous and some weren't. Some were high profile and some weren't. Some were coveted and some weren't. In each case, there was a chance for me to learn something about the System or the economy and to contribute in ways that were fairly broad and perhaps different from what other people could do. I've never been disappointed with any of my committee assignments, and I've managed to be on every one except the consumer affairs committee during the time I've been here. So it's been fun.

Sustained Interest Rate Increases

MR. SMALL. There came a period when the FOMC started a sustained increase in interest rates. Is it a tough thing to do in practice?

MR. FERGUSON. It was a pretty clear-cut intellectual exercise. The context in which I had to first vote for an increase in interest rates was after a period in which we had decreased interest rates as part of an emergency effort to deal with the Russian debt moratorium and LTCM. It was obvious to me that we would be turning around and raising interest rates again, since the context of an emergency liquidity provision suggests that you will move it back to more normal levels. The hardest part about raising interest rates is not the process of doing it, it is avoiding the sense of momentum and keeping in mind one of the most important lessons, which is that policy works with long and variable lags.

Assuming a Leadership Role in the FOMC's Public Communications

MR. SMALL. When did you start taking a leadership role in communications and helping structure that? What would you say was the impetus?

MR. FERGUSON. I started taking a formal leadership role with a subcommittee that the Chairman structured in 1999 to deal with the policy directive and public disclosure. The main impetus for it, in my mind—this may not have been true for others—was a leak that appeared in the *Wall Street Journal* on April 27, 1998, about the tilt, or the so-called bias, the likely direction of the next move. That leak got a lot of press attention and also moved the markets. Because of that, it became abundantly clear to me that we had to take a more thoughtful and proactive role in what was disclosed to the public and when. If this leak about this relatively soft notion of the tilt was so market-relevant, we should simply disclose it ourselves and not wait for it to be leaked. That's the point where I got very interested in trying to lead the Fed's thinking about this.

There had been a long series of moves towards greater disclosure starting in 1994, so I can't claim to be the one who created this notion that we should be more transparent. But during my tenure, we got into it in a relatively ad hoc manner. What we ended up doing was, in May

1999, we started to announce the tilt and releasing it immediately. I recall the meeting in which we decided to do that. It was a close call for some people. It was obvious to me that we should do it, but as I look back, what it didn't have was a broad strategic context. I don't think anyone thought about that as anything more than another move towards transparency.

There were three or four different communications-related things we wanted to do at the same time. We simply announced that we wanted to start to release the tilt. I was strongly supportive, but then we discovered the tilt language wasn't quite right. We weren't always happy with releasing it. So we decided to create a working group, and I was asked to chair it towards the middle part of 1999, to put all of this into a broader strategic context so that we weren't taking a series of one-off steps rather than thinking more broadly about what we were doing and why.

It turned out to be fascinating, because it was easy to get a general agreement of principle that we wanted to move away from the so-called tilt to this thing called the "balance of risks" statement. We agreed on that in the first meeting of this subcommittee, or the working group as it was called. What was hard to agree on was the language. Would it be about changes versus levels of the funds rate? How would we deal with the dual mandate? There was a general consensus that we wanted to have fairly formulaic language, because it was easy to vote on as opposed to changing language. Working with the Monetary Affairs staff, we came up with a set of words that I would describe not as beautiful or timeless, but as capturing the general spirit of where the Committee was at that point.

We also decided a couple of other things that were as important though not as heavily commented on. We would release an announcement after every meeting. We had released a statement only after meetings where there was a change in the stance of policy, a move of rates.

It struck many of us that this approach didn't promote transparency, which is helped by being consistent from meeting to meeting. So we decided we would release an announcement after every meeting, and implicitly it reinforced the notion that the statement was the statement of the FOMC and not just of the Chairman, which was something that had evolved over time.

We voted on it in December 1999, and it became publicly known in January 2000. Discussing and balancing risks is the right concept, but the language we developed was unworkable. Keeping it formulaic, so that it could be voted on easily by the Committee, also proved to be more aspirational than operational. Over time it has evolved.

I was put in charge of a second subcommittee to figure out what to do about the balance of risks statement. We decided that we wanted to continue to talk about the balance of risks, but we wanted to allow the language to evolve and to become much more flexible and more reflective of the internal realities. That has worked pretty well. Now we're at a stage where there's a consensus on the Committee—though there are some who disagree—that we should always have this forward-looking language, and that it should be couched in terms of the dual mandate. I would describe both as the grandchildren of the balance of risks concept. The language itself might still evolve.

I am no longer a voting member of the Committee—or, at least, I've recused myself—but that's a nice step. If the Fed is still committed to providing forward-looking language but allowing it to evolve and be more flexible, then it's a real win, though it is far removed from what we thought we were going to do at the end of 1999. It's a great sign of the wisdom and the flexibility of the Committee.

There are a couple of small things, one that I will say I was more responsible for than most people and one that I resisted until the very last. In March 2002, we announced that we

would release the FOMC vote immediately, which was an idea that I came up with. I got most other people to support it. It was heavily supported by the general counsel, who came to the conclusion that we almost were required to do that. That did not get much attention, but it distinguishes us from almost every other central bank around the world, and it puts the vote into a context immediately. That was very good.

One thing that we've done that has been useful—that I was not too enamored of until the very end—was releasing the FOMC minutes earlier. I was concerned that the minutes—which are primarily historical in context—would get too much market attention, that the Committee would spend too much time fine-tuning the minutes, and that there was a risk that, if news came out after the meeting but before the minutes were released, there would be a natural human tendency to adjust the minutes in some way.

Fortunately, I've been proven wrong on all of those things, with only one exception. The minutes have been helpful and have moved the market only slightly and probably in the right direction. The Committee has exercised the right discipline about making sure the minutes reflect the meeting and not intervening data. And working with the Monetary Affairs staff, the Committee has come up with a good streamlined process for getting the minutes out in time without taking undue amounts of time. So, given where we were when I joined in 1997, we've made a great deal of progress on transparency. There might be more to do—I won't prejudge—but I'm pretty proud of what we have done, and I'm pretty pleased to have been associated with some of these moves towards transparency.

MR. SKIDMORE. Do you think there was any effect of immediate public disclosure on the Committee at the time—that it might either encourage or discourage dissents?

MR. FERGUSON. It hasn't done much to the voting dynamic. Since I was a big proponent of this and one of the first to argue in favor of it, I am not surprised that it hasn't changed the dynamics on the Committee. I'd be disappointed if the question of releasing the vote immediately versus three weeks later drove an individual to change his or her vote. I am pleased to say that people on the Committee recognize a clear distinction between the actual vote being taken, which is the thing that's important, and the transparency implications of when that's released. I have not seen that this immediate release of the vote has had any impact on the way people on the Committee have voted. It has been helpful in humanizing the Committee.

There was one dissent that occurred right after Hurricane Katrina struck in 2005. The Committee ended up doing the right thing in not refusing to keep the long-term focus on policy. But the dissent was helpful in that there was a tough debate, and we were aware of the issues that the country confronted. That was a place where quick transparency and a dissent was helpful in getting a sense that the Committee was considering all the arguments on both sides about what we should do about monetary policy and confronting the incredible tragedy in Louisiana. On balance, it's been a net positive, and there is one example that was quite obviously a positive that we could release the vote immediately.

The only other issue on transparency is the question of where to go next—inflation targeting and that whole range of discussion. I will leave it to the Committee to figure out what it wants to do, and I look forward to watching that evolve over time.

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

MR. SMALL. As you were getting into some of the transparency issues, there were the 9/11 attacks. Can you discuss the crisis management aspect and long-run implications for Federal Reserve operations?

MR. FERGUSON. We had gone through the Asian crisis, the Russian debt moratorium, LTCM, and the run-up to the question of Y2K. In 2000, we had a strong economy much of the year. We had a strong stock market. With the various breaks that came in early 2000, we were keeping rates stable during much of that period. Then we had the dramatic move on January 3, 2001, of reducing rates, which was obviously the right thing to do. We moved quickly under Chairman Greenspan. On September 11, 2001, the federal funds rate stood at somewhere around 3½ percent. The economy was weakening even though we had reduced rates by 300 basis points in a relatively short period of time.

On Tuesday, September 11, I was the only Governor in town. The Chairman was flying back from Basel. Other Governors were traveling: Larry Meyer was in China; Edward M. “Ned” Gramlich was in the Southwest somewhere; and Mike Kelley was, I think, in the New England states. I got in to work at the usual time, shortly after 8:00 a.m., and was going through the usual efforts of the morning—looking at the paper, looking to see if anything had happened overnight. I got a call from my wife, Annette Nazareth, shortly after 9:00 a.m. to tell me to turn on the TV. At the time, my wife was the director of market regulation at the Securities and Exchange Commission (SEC). The SEC has a market watch room that keeps all the breaking news channels on and has a person literally watching all these screens. She could see that the first tower was on fire. Obviously, no one watching television saw the plane go live into the tower, but CNN was broadcasting this. So I turned on the TV and, with one eye, was watching what was going on in New York while still continuing, as much as I could, the beginning-of-the-day activities when I saw the second plane go into the second tower.¹¹

¹¹ The first plane hit at 8:46 a.m., and the second plane hit at 9:03 a.m.

It was obvious that things would be in turmoil. It couldn't possibly have been a coincidence that two planes had hit the two towers. Nor was it conceivable to me at that moment that someone had done that on purpose. So it was hard to figure out what was happening. There was no rational explanation for it, but it was clear that there was a crisis.

I went upstairs to the morning call with the New York Fed's Trading Desk, which was going on in Vincent R. "Vince" Reinhart's [director of the Division of Monetary Affairs] office. As we listened to the morning call, the chaos in New York was coming across from the New York Trading Desk. I was looking out the window and saw the smoke going out over at the Pentagon and turned and relatively calmly said that I wasn't sure what was happening, but smoke was appearing from the direction of the Pentagon, and it looked as though there was some crisis unfolding in Washington as well as New York.¹² We agreed that we would then maintain an open line with the New York Reserve Bank. We released them to go and figure out as best they could what they had to do in New York. There were a number of staff people already gathered in Monetary Affairs. Michelle Smith came up, and I'm not sure if Dave Skidmore did or not. Donald L. "Don" Kohn, who at that point had become an adviser to the Board, came upstairs. I recall looking for Steve Malphrus [Staff Director for Management], but he wasn't in the room.

We had to start to think about what to do. People had different ideas. No one knew exactly what to do. We decided we had to release a statement—first to employees, then to the public. Michelle Smith worked on the statement to employees.

For the public statement, I wanted to say just the following: "The Federal Reserve System is open and operating. The discount window is available to meet liquidity needs." Period. That was it. There were a lot more things that could have been said, but I thought what

¹² A plane crashed at the Pentagon at 9:37 a.m. The last plane crashed in Pennsylvania at 10:03 a.m.

the world needed to know was just those two things. No one disputed that, but could we say more? At the end of the day, it was my decision because I was the only Governor. So we decided on that short statement.

Then [the] staff asked me to move to the Special Library, where we had teleconferencing equipment. We looked at the public statement once more. I asked that we have a telephone call with all the Reserve Bank presidents, because I wanted to issue this statement as a statement of the Federal Reserve System, not just from the Federal Reserve Board. It was an important statement about what was happening in the Reserve Banks, including New York. We had that call around 11:00 a.m.

I wouldn't describe the call as chaotic. There were a lot of views expressed, not initially about the statement. Somebody said that it was important to close the Reserve Banks and that one president was sending everybody in that Reserve Bank home. I said, "No, you can't do that. We need to keep the System open and operating. We need to get cash in and out." I wasn't sure what was going to happen to the check system, but we needed to clear as many checks as we possibly could. It was important that we not close the System. I read the statement, no one disagreed with it, and shortly thereafter we got it out.

At the same time, I had to deal with the question of what was going to happen to the 1,600 people in these two buildings in D.C. The government had been told to evacuate. I decided that I wasn't going to leave this building because I had no place to go other than go home, which didn't make an awful lot of sense. We didn't have a backup facility that we could reach easily, so if I was going to continue to operate or to lead the Federal Reserve System, I'd have to stay here. It was also clear to me that regardless of what I said, I couldn't make anybody else stay. Eventually, we put up a little announcement on the internal website here saying,

effectively, that there had been a terrorist attack in New York and there was a fire at the Pentagon, but we didn't know quite what was happening.

I thought it was better for people to stay in the building, but we couldn't make people stay. I decided I was going to stay, and therefore we didn't evacuate. We ignored the "order" of the government, which I assume was not illegal, and we stayed in the building. I don't know how many hundreds of people ended up staying, because to this day I'm not quite sure how everything got managed, but it did get managed. I split my time between my office and the Special Library, spending a fair amount of time talking to New York to figure out what they were going to do since it was important that they stay open if possible. They decided, during the day, to evacuate some of their building and move over to the Bank's backup site in New Jersey.

The main policy issue of the day was, in a narrow Fed sense, how businesses were going to fund themselves. Every day, businesses issue billions of dollars of commercial paper, which provides short-term funding. They redeem it in the morning, then they issue it again during the day. With New York in complete chaos and a number of institutions that are important for funding the commercial paper market not available, it fell to the Federal Reserve to provide funds to businesses through the banking operations of the country. We did that through discount window lending to depository institutions.

The numbers got to be very large. We ended up lending about \$37 billion dollars. In addition, we had to assist the funding of individuals and small businesses that were using their checking accounts during a period in which the systems to clear checks were impaired. We did so by honoring checks presented to the Federal Reserve for clearing even though it would be days before the banks could tell us whether there were funds to honor those checks on the part of the individuals and small businesses who wrote them. That effectively meant that the Federal

Reserve System was floating not just big businesses that would borrow commercial paper during the day, but we were making sure that small businesses and individuals who had written checks, and expected those checks to be honored, could continue to operate. That led to a huge number of what are overdrafts—effectively, loans—on our books.

MR. MADIGAN. Three billion dollars on September 11, and a higher amount the following day.

MR. FERGUSON. The paper checks that people write get flown around the country to be presented to banks for payment. Checks couldn't be flown because all air traffic was grounded. That created part of the issue for float that we've just talked about.

Another dimension of the challenge was international. It's not just U.S. firms that have dollar-denominated obligations or fund themselves in dollars. Many firms overseas do the same funding in dollars. During the crisis, I had calls from a number of central banks who wanted to understand the dollar liquidity situation for their local businesses and their local banks. Many of those institutions had correspondent banking relationships so that they could draw on dollars that were borrowed here in the United States from the Federal Reserve.

There were questions about how to maintain the flow of those funds, and there were two ideas on how to deal with it. One idea was fairly complex, involving the BIS lending to central banks in U.S. dollars, with the expectation that the Fed would deposit the dollars at the BIS. I didn't like that very much, because it got the BIS into the middle of something where, in fact, they didn't need to be—acting as counterparties to both sides. In lieu of doing that, we decided to create some temporary swap arrangements with the European Central Bank, the Bank of Canada, and the Bank of England. We ended up negotiating some middle-ground number that kept everybody happy, and most of these swap lines were not drawn on.

The major Federal Reserve effort during the September 11 crisis was operational and had to do with presenting checks and lending at the discount window.

Another issue that emerged, as I mentioned, was the ability of corporations to fund themselves. The key infrastructure in all of this is the clearing and settlements system. Clearing and settlement is done primarily through two institutions, particularly for U.S. government securities: The Bank of New York and J.P. Morgan Chase. The Bank of New York operations center was within a few blocks of the World Trade Center, and its telecommunications lines were cut. They had to send people home, so there was an infrastructure problem that lasted for some time. We had to monitor The Bank of New York in our payments-system oversight role and also as its bank supervisor, since it is a state member bank.

The final issue of the day was what to do about commercial banks. During a crisis, as you can imagine, there are a huge number of phone calls with other people in the government. There were some phone calls with the deputies who were part of the President's Working Group on Financial Markets, which included the Fed, the Treasury, the SEC (represented by my wife, Annette Nazareth), and the Commodity Futures Trading Commission (CFTC). On one of these calls, one representative floated the idea that we should encourage the President to declare a national bank holiday. Of all the decisions I made on that day, and of all the things that happened that day, the thing that I did that was most important was to refuse to go along with this. No one else seemed to object to this notion that the President should declare a banking holiday.

I objected pretty strenuously to recommending a bank holiday, because it was clear to me that if we did, we'd take something that was a tragedy and financial crisis in New York and a tragedy and security crisis in Washington and turn it into a banking crisis across the country. If

you close down the banks, the process of reopening them is incredibly difficult. The process of maintaining confidence becomes nearly impossible, because individuals are afraid that they can't get to their savings. This fellow said that he'd check around to see what other people thought. I said I'd have to talk to all the banking regulators. About 20 minutes later, it was quite clear that people like Jerry Hawke, who was Comptroller of the Currency, would not go along with the thought that we should declare a banking holiday.

That was the most important thing I did on that day, because there would have been a perfect crisis, in my judgment, if the President had announced a national banking holiday. I don't know what the President would've decided, but if all of us had recommended that, I suspect there wouldn't have been anyone in the White House who would have necessarily opposed it.

As the day wore on, we still had the issue of what to do about the people in the building. That ended up resolving itself as people gradually left or stayed, depending on what they thought was appropriate.

Late that afternoon, around 5:00 or 6:00 p.m. EST, Chairman Greenspan called me. He had called his wife (NBC correspondent Andrea Mitchell) and listened to her TV news report, so he knew the broad outline of what had happened. His call to me was to ask me what I had done. This was remarkable, because I thought that he'd call and have a long list of things to do—that he would try to manage the process from Switzerland, where he had landed. He did just the opposite.

He asked one question that reflected his experience in 1987. He had seen the two-line statement that we had released. He was in the company of the president of the Federal Reserve Bank of New York (Bill McDonough), and they had some concern about whether or not the

statement was sufficient. The conversation was not in any sense heated, but it was clear to me that they thought—one of them thought—that the statement could have been a little more fulsome. I explained that the statement was meant to be short and direct, given the chaotic situation, and that it seemed to have the desired effect. There was a little bit of back and forth, but in the end, the Chairman simply said, “Well, if you have the chance to issue another statement, think about it.” I said I would certainly do that but doubted that I would end up issuing another statement, given that the first statement was working and that I did not want to risk the success we were having, which was sort of a gutsy thing to say to the Chairman and the Vice Chairman of the FOMC.

At the end of the call—it was a very brief call—he said, “Well, you’re in charge. You make the decisions, and you know I’ll trust you to do the right thing,” which was remarkable. Under those circumstances, I’m not sure I would have been wise enough to let the person on the spot manage this crisis and not second guess the individual. It’s one of the main things for which I’ll always remember him.

On September 12, 2001, we continued the process of providing liquidity in various forms. By that point, the Board and staff were heavily monitoring what was happening at the Bank of New York and to check float. The New York Fed was able to start open market operations during the middle part of the day on September 12. The next day, the discount window loans started to come down, but we started to provide a huge amount of liquidity through open market operations. Curiously, the question of what the fed funds rate should be never came up, because the market kept trading at the target rate. In theory, the fed funds target could have been almost anything, proving again the importance of transparency and announcing the target.

The Chairman got back late in the afternoon on September 12. He did something else that completely surprised me. He talked to lots of the staff, including the general counsel, J. Virgil Mattingly, Jr.; Don Kohn; and I'm not sure who else. Then he called me into his office and said, "Well, I hear you've done a great job, so you're in charge." I was completely flabbergasted, because I thought this guy would get off the plane, get a briefing, and then run the crisis management process.

We had a phone call with the Reserve Bank presidents around 5:00 p.m. on September 12, and he said I was still running these operational things. He obviously wasn't delegating his full authority, but I was still overseeing the day-to-day operations of the System. I did that with no interference from Chairman Greenspan for the entire week. He would ask for reports on how things were going. I was continuing to monitor operations, keeping track of what was happening with the Bank of New York, the New York Reserve Bank, all the Reserve Banks, and checking float. He did not interfere once. He just let me do it.

We spent a fair amount of time on September 13 and 14 trying to figure out what we should say and do about monetary policy. We finally agreed before the end of the 15th that we should have a meeting of the FOMC before markets opened on the September 17 (Monday), cut interest rates again by 50 basis points, and issue a statement. That's what we ended up doing.

It was a fascinating week in many different ways, and the most interesting part about it was the way the System operates. Untold thousands of people potentially risked their lives to do the right thing, particularly the people at the New York Fed and here in Washington, where there were attacks. They were weighing their family obligations and their national obligations and putting national obligations ahead, even though I don't think we put undue pressure on anyone to

do that. Chairman Greenspan's very intelligent—to my eye—response of not trying to micromanage let a relatively smooth operation continue unchanged even once he came back.

September 11 proved the value of having the Federal Reserve over monetary policy, bank supervision and regulation, and payment systems. I am absolutely convinced to this day that if we were not a bank regulator, it would have been much more difficult for us to stop the notion that the President should declare a bank holiday. It was pretty difficult even as it was. There are other lessons about infrastructure and stability that are important. I would also say that it proves the importance of transparency in monetary policy.

April 14, 2006 (Third Day of Interview)

MR. SMALL. Today is Friday, April 14. This is the third session of our interview with Vice Chairman Roger Ferguson.

Mr. Vice Chairman, what were the implications further down the road of the Fed response to 9/11?

MR. FERGUSON. The country had come through 9/11 about as well as could be expected in an infrastructure sense. The financial system had functioned as well as could be expected under the circumstances. In large part, that was due to the skill of the Federal Reserve System staff and people in the private sector. The events of 9/11 also revealed areas where things could be improved so that the financial system would be more resilient. I was asked to lead some work by [the] staff across the System to respond. We ended up having around 40 projects, which I recently discovered were called the “Ferguson 40.”

Those project topics ranged from quorum requirements here at the Board, or how the FOMC would function if a number of members were absent, to the physical safety of Governors and where we and the staff would go in the event of future attacks, to broader policy issues such as backup across the Reserve Banks. We worked on so-called buddy banks, so that any bank in the country could have access to the discount window even if the Reserve Bank in its local District was not available. We provided that other parts of the Federal Reserve System be able to perform the open market duties should the Federal Reserve Bank of New York not be available. We had to think about broader questions of what kind of resilience we would expect from the private sector and, in particular, how we’d think about the two institutions that are most important in the clearing and settlement of government securities.

Some of the changes we could make on our own. Some required approval of the Congress and new legislation. For example, we needed the Congress's permission to arm all of the security guards in the Federal Reserve System according to federal standards. We trained a number of people in the Federal Reserve to support open market operations and made provisions to periodically test that.

[The] staff wrote a couple of white papers. One contained standards—broad guidance—for resilience of key market participants that pushed them to think about the appropriate degree of backup for their critical infrastructure operations. Another white paper posited potential solutions to the question of duopoly in the clearing and settlements system. We touched almost every element of the financial infrastructure of the country—clearing and settlements, major markets and major market participants, the Federal Reserve System's interface with external banks and the market, the Federal Reserve System's own internal operations, security for our buildings—a full range of topics.

We got started in the first or second quarter of 2002. Even as we speak, there's one project that is still open: the possible creation of a new bank to deal with clearing and settlement systems. And some of the issues are ongoing, such as the white paper that deals with major market participants. We've been asked to report to the Congress later this year on how that has been going. I suspect there'll be efforts to modernize and update that.

We developed a large number of initiatives. And at this stage, all of them are, or are close to, completed. The resilience of the Federal Reserve System and major market participants has been increased above the level that existed just before the September 11 attacks. This is an evergreen effort. We will continue to think about what one can expect in resilience from key

players in major markets as technology changes and, unfortunately, as we experience new threats to financial stability.

There are some things that even with large amounts of money and the best of intentions we can't fully fix. For example, modern financial infrastructure depends very heavily on having backups built into the telecommunications networks. When one starts to work with the major telecommunications providers, their ability to guarantee parallel lines and backup—without a single point of failure, without a choke point in the system—is not 100 percent certain. That's going to require ongoing observation and development. As there are new approaches in telecommunications, building in resilience and backup will be important.

In terms of financial resiliency, the country is certainly better off than it was on September 10, 2001, but this is one of these battles that, in many ways, is never won. The staff worked on it remarkably hard, and it is one of the things—true in the world of infrastructure, in particular—where full credit will never be given. I'm afraid many people will take for granted how the financial system got from where it was to this new degree of resiliency. Those who have worked on these projects deserve a great deal of credit.

MR. SMALL. A term that's commonly used is the "fog of war." What was it like at the Board on 9/11?

MR. FERGUSON. You're right to say it was the fog of war. Very simple things were unknown. For example, we had no idea exactly what had happened. We didn't know if it was safe to send people out into the streets or wiser to keep them in the building. The approach was: Take what limited information we had, think quickly about what the risks were in one choice versus another, and take what had to be some calculated risks. Should we evacuate the building or not? Should the New York Fed evacuate or not?

We decided to stay here as opposed to moving to another location, not knowing which would be the better option, ultimately, but knowing that if we moved, we'd be out of touch. New York decided that it had to move because it was physically in a place where it could not operate. Small examples, but one can generalize. We had no idea exactly when the Bank of New York would get up and operating again. We had a number of people there and were getting conflicting reports—some of them overly optimistic, some of them overly pessimistic. We had to operate, to some degree, on assuming the worst that could happen and then deciding how to lean against that risk.

MR. SMALL. Did you sleep at night?

MR. FERGUSON. I was surprised at how little anxiety I personally felt. There wasn't time to be anxious. We simply had to do the best we could in that circumstance because we were the last line of defense when it came to the financial system.

Did I sleep that night? I have a family, so I went home. I got about three or four hours of sleep. It was as sound as one is going to sleep during these circumstances. I don't recall tossing and turning. My view was that the final decisions fell to me. I was supported by a remarkably capable and dedicated staff; we would do the best we could. People may second-guess us, but we didn't have time to be stymied by indecision. We had to make a decision, evaluate how it was working, and move on.

A prime example was the statement that we released. It was relatively short. Someone even described it as cryptic. The decision I made was that we needed to be as explicit as we could about what we knew, not speculate on things that we didn't know, and then observe the market reaction. It turned out that the reaction to the short statement was as one would have hoped: The message got through that we were prepared to provide liquidity. There could have

been another range of words chosen, but what was chosen worked. Had it not worked, we would have had to issue another statement.

Decisionmaking and communication involved taking a series of reasonable risks in the face of a huge amount of uncertainty while recognizing that you might have to adjust the decision at some point in the future. The same thing was true in dealing with the Reserve Banks. At least one of them wanted to close. It was clear that the risk from closing was higher than the risk from staying open and operating fully until something else intervened. In hindsight, the way we did it was to choose what seemed like the least bad outcome in the face of ignorance, observe how that unfolded, and then make another decision.

What information we had went from very little on the morning of September 11 through the afternoon of September 11 to a huge amount towards the end of the week. I recall that at some points the phone kept ringing, with people trying to tell me what was going on, what they were doing, and what they were seeing. Some of it was repetitious; some of it was contradictory.

I suppose this is also true in a war. Sometimes the fog comes from too much information—much of it contradictory and some of it inaccurate—as opposed to too little information. So we went from not being able to contact anybody to suddenly being contacted by everybody, and there were problems in both cases. We took the approach of making the best decision we could, knowing that there were risks being taken in each case, and monitoring and seeing how they came out. By and large, it came out reasonably well.

The other thing that we did was insist on having the best experts we possibly could. For the Bank of New York and the question of when it could get its system up and operating again, there were a number of different skill sets that were called for. The New York Fed and our staff worked together to determine who were the best people who could go to the Bank of New York.

We sent them there as opposed to depending on the Bank of New York to call us. I would describe the approach this way: Trust them to some degree, but verify with your own people there; select the best people you can to get the information that you need.

It was an interesting process, one that, in my case, was not particularly anxiety provoking. We just had to make the best decisions we could. It also helped that I kept drinking herbal tea that day. [Laughter] I don't know why, but I recall having my mug in my hand all day.

FOMC Policy Statements

MR. SMALL. Another aspect of communications has to do with FOMC policy statements. How did greater transparency affect the internal dynamics of the Committee?

MR. FERGUSON. There were people who were afraid that the internal dynamics would be damaged by greater transparency, but that didn't change dramatically during the time I was on the Committee. The dynamics of internal decisionmaking had changed years earlier when the Committee members and participants realized that their statements were being recorded and that the transcript would be released. The discussion became more structured, with individuals being pretty clear about what they wanted to say and using written notes and talking points. By the time I got to the Committee, that had already occurred.

Releasing the statement didn't change the decisionmaking process per se, but it forced the meeting to have a new dimension, which was how to think about and review the public statement. Initially, the statement was drafted by the Chairman, the staff, and a few Governors. The president of the New York Fed and I saw the draft of the statement, but no one else did. The Chairman presented the statement after the vote and had a quick review of it, which was efficient in the sense that it meant we got a statement out. But it wasn't effective in the sense that it was

an important communication device that was owned by the Committee in theory, but in practice the Committee didn't feel very much empowered. The existence of the statement has forced a greater democracy to emerge in which the statement—at least elements of it—went from being drafted by a small number of people and held tightly to a process in which many of the components of the statement are disclosed to the whole Committee in the form of a table in the Bluebook. The statement proved to be a catalyst for a more participatory, democratic process in which Committee members have a chance to have their say.

The process creates a bit of complexity, because it implies that some of the decisions—for example, changes in the target funds rate—while not exactly foregone conclusions, are heavily hinted at before the Committee actually gets into the room. So it's made the Committee dynamic and, in some sense, more fluid. It effectively means that the Committee process takes more days. Some of the process goes on through bilateral conversations with the staff members who have drafted the Bluebook or with the Chairman or with another member of the Board of Governors, as opposed to having the FOMC meeting itself be the only time that all of these topics are discussed. It's a good thing, because it has forced much more democracy. It is a case in which the communication, in this case drafting the policy statement, has an impact on not so much what's said in the room, but on the days leading up to the meeting.

The public statement has done one other thing. It has forced the Committee to explain uncertainty to the markets. At the end of each statement, there is forward-looking language that is structured on risk assessment. The language has occasionally moved to the point of talking about the likelihood of moving the policy instrument up or down. There are times—and we're in such a time now—when the Committee can't be 100 percent certain about what's likely to happen because the decision is data dependent. The language itself reflects that uncertainty. But

the market interpretation of that language can create a greater sense of certainty and commitment than the Committee wants to convey. The statement has forced both the markets and the Committee to come to grips with the fact that sometimes the next move is quite certain and sometimes it is not. Uncertainty comes through more clearly now in the discussions in the room because people have to reach a consensus about not just the policy move, but what they want to signal about the next move. Now we realize that there are times when you can signal clearly and times when you can't. I don't think that would be as explicitly understood in the Committee if we didn't have this public statement. The statement has been helpful in forcing the Committee to be more democratic and to recognize points of certainty and uncertainty. It has also made the Committee process, in some ways, richer and more valuable to the members. Others may disagree, because there's a clear downside to all these things.

MR. SMALL. How have the Fed's relations with the markets been changed by the statements?

MR. FERGUSON. Well, it's changed in a couple [of] ways. One is the point I was just making: The market now expects clarity about the target and, additionally, about the outcome of the next meeting, which creates opportunities for both greater clarity and misunderstanding. What we're getting back from the market now is expectations of what the next move is going to be or the move after that.

As we sit here on April 14, 2006, the market is expecting, with 100 percent certainty, that there will be another tightening move at the May meeting and then, with a 50 percent certainty, that there will be a tightening move at the meeting after that. There are relatively easy ways to parse the fed funds futures to get some clarity around the market expectation. You've got a market dynamic that is focused on the future. It is now possible for the Fed, through speeches

and testimonies, for example, to fine-tune those market expectations. So it's clearly a brand-new dynamic.

Another dynamic that has always been important and will become even more important is anecdotal information. We continue to rely, maybe more than they realize, on the Reserve Bank directors for information. We continue to rely on what we hear from industry contacts. That is still the kind of thing that many members bring to the table. I'm not sure where the Committee stands on that right now. The Committee members would be wise to keep one ear open to anecdotal information. We discovered in 2000 that listening to the anecdotal information can tell you more than what you might get by relying on forecasting capability. The year 2000 was a prime example, because the break in the stock market was starting to have a bigger impact on business sentiment and business investment than we realized in the forecasting apparatus. You could hear it in some of the incoming anecdotal information.

It's an interesting dynamic that all policymakers have to deal with—how to weigh the best judgment of very good economists about the outlook versus what you hear from business leaders who tend sometimes to be too optimistic, sometimes to be too pessimistic, but sometimes get it absolutely right. How to judge when they've got it more right—or when they're being driven by different sentiments—is an interesting dilemma that we're stuck with all the time.

The Structure of the Banking System

MR. SMALL. Do you think the Board now has better information about the banking system because of regulatory accords, or do you think you have less because of globalization?

MR. FERGUSON. The structure of the banking industry has become much more consolidated, with a small number of extraordinarily large institutions at the top. When I joined the Board, a strong merger wave was under way that gave rise to three \$1 trillion institutions. I

hope, from the Basel Accord, that we can look at the regulatory capital required and see if it truly reflects the risks in the banking book. The examiners ought to be able to have a better sense of what the risk is in these very large, complex, opaque institutions. An ideal capital regime pushes the banks to improve their risk measurement and management, and it would allow examiners to work with and through the risk managers at the banks to understand more about their risk profile.

Fed Communications with the Public and the Congress

MR. SMALL. Could you address communication with the public at large and with the Congress?

MR. FERGUSON. Both those things have evolved during my time here. Certainly, the role of the Fed has become more visible to the eye of the public. Thirty or 40 years ago, understanding what the Fed does was the domain of a relatively small number of market participants and experts. Now, because more households are exposed to financial assets in one form or another, people understand that the movement of the federal funds rate has something to do with their mortgage loans, for example. They wrongly believe that the fed funds movement has a predictable impact on asset valuations, such as equity valuations.

That is driven by two things. One is a greater exposure of households to financial assets, and the other is the advent of televised financial journalism, which needs to fill an awful lot of air time and has filled a fair amount of that with current and former Fed policymakers. This has been a challenge for us, because we want to be as open and transparent as we possibly can. On the other hand, I don't think we can ever possibly have enough capability to feed the never-ending appetite for information about the Fed and for commentary about the economy from Fed officials and former Fed officials.

We've worked hard to become more transparent about what we do and why we do it, but I'm afraid that the hurdle continues to get higher and the demands continue to be greater. I know this personally, because when I announced that I was leaving, one of the first few calls I got was from one of the channels that wanted to get me on retainer to comment on every meeting going forward, starting with the May meeting after I left. And they were paying reasonably good money to get me to be a talking head for about 10 minutes every eight weeks. You'll be relieved to know that I turned them down. [Laughter]

Communication with the Congress I would put in exactly the same place. It's gotten much broader. I could be wrong, but it seems that way to me. The Congress has become very interested in issues of capital. It has been in the past, but certainly the controversy and concerns around Basel II has congressional interest. Post 9/11, the Congress has gotten very interested in questions of resilience and the incentives that we're providing to the private sector. There are some conflicts, because the congresspersons and senators from New York want to make sure that jobs don't leave New York because of rules for resilience through distant backup, while congresspersons and senators from contiguous states are interested in seeing financial-sector jobs leave New York and cross over to someplace else. There's both a broad national interest and an ongoing parochial interest that you'd expect in a representative democracy. Many elements of what the Fed does have attracted congressional interest, and it is no longer just on monetary policy.

The Fed's standing as a neutral voice on economic policy in general has risen greatly, and so the Congress often turns to the Fed [and] to the Chairman for views on a broad range of issues. That's a challenge for us. Chairman Greenspan thought it was his obligation to respond to any reasonable question that came from the Congress. Chairman Ben S. Bernanke has taken a

view that he's not going to talk about the details of fiscal policy. I suspect that the pendulum will continue to swing back and forth, but it's a sign of the times that people care about what the Fed Chairman thinks about fiscal policy, regulatory policy for nonbanking institutions, whether or not government-sponsored enterprises (GSEs) are too large or too small, or what we should do about terrorism risk insurance. We've been asked to opine on all of these matters, even though almost all of them are outside of the natural ambit of the Fed.

So we've reached a stage where communication with the public and with the Congress has become multidimensional. We've managed it pretty well. It will continue to stress the System a bit, but it's a great sign of respect for the Fed that everyone wants to hear what we've done, why we've done it, and what our views are on a broad range of things. It's better than being completely irrelevant to the hot debates of the day.

Staff Interaction with the Congress and the Administration

MR. SMALL. What interactions at the staff levels, either between the Fed and the Congress or the Fed and the Administration, are ongoing?

MR. FERGUSON. It's pretty broad. The areas I'm aware of have to do with financial stability matters. In this post-9/11 world, many people understand the importance of a stable financial system. Across the government, there's an increased interest in much of the 9/11 work that we've done. There are a number of interagency committees that have been set up, some of which are led by or have participation from Steve Malphrus, who oversees administration and management here.

The Fed has an ongoing role with the President's Working Group on Financial Markets, which brings together the Treasury, the SEC, the Fed, and the CFTC. It was created after the 1987 stock market break. It is not very visible to the public, but it is an important vehicle for

thinking about regulatory structure, coordination of regulation, and dampening down some turf battles across institutions or between institutions.

There's a fair amount of informal communication between members of the Board, particularly the Chairman, and leading members of the Congress on economic topics and financial stability topics. The Fed has become quite woven into the fabric of government, generally in ways that are appropriate, because it reflects on our important roles as a central banker and in financial stability.

The Role of the Fed's Vice Chairman

MR. SMALL. What are your thoughts on the role of the Vice Chairman?

MR. FERGUSON. I became the Vice Chairman in October 1999. Alice Rivlin, my predecessor, left midsummer, but she'd announced much earlier that she was going to leave.

The job is a fascinating job, because it has no real role description except for chairing Board meetings in the absence of the Chairman, which is fairly narrow. I have observed over the years that the role is one that evolves from practice and depends on what the other Governors, the Reserve Bank presidents, and the Chairman will allow the Vice Chairman to do. Sometimes it works smoothly. Sometimes it doesn't.

I chose to exercise a leadership position in areas that many people were involved in and that needed some sort of coordination or facilitation. I also chose to look for special projects that needed to have a person lead them who had authority to lead by being designated chair—for example, the activities that we've talked about a few times regarding communications or the post-9/11 activities. It made some sense that it be the Vice Chairman leading these activities. It didn't have to be, but it was logical. The third thing that I chose was to be involved in international activities. That reflected partially my background at McKinsey and Company,

where I had to oversee an international operation for that firm, and it reflected the serendipity of having been asked to lead the Y2K council early in my Fed tenure.

My effort was to fill in places where assistance was needed and where some leadership would naturally come from the Vice Chairman. I hope I did these roles in a way that was relatively “soft touch.” Because I’ve been the longest-serving Vice Chairman in 30 years, I’ve had a chance to touch many different areas. That has been, from my standpoint, very pleasant. Since the Vice Chairman’s role doesn’t have much in the way of mandated or legislated responsibilities, it depends very much on the ability to find and lead a consensus and on building processes and solving problems.

My job at McKinsey and Company, which was a consultant’s job, helped me in those processes of building consensus and leading a group of colleagues. Had I come out of an academic background, being a single practitioner, or out of a more hierarchical structure such as a corporation, it would have been much harder to be the Vice Chairman here. I wouldn’t have had the experience of building consensus with a group of colleagues who are on the same plane and who have no particular obligation to defer to anyone else.

The other thing that helped was that I had some exposure to banks, to the international side of things—other cultures and people—and the payment systems. I also had some exposure to research, and I had thought a great deal about things such as the evaluation and compensation of individuals. Those were areas away from what people first associate with the Fed, but I happened to have had some exposure to them before I came here.

All of my predecessors had done the job in different ways. I wanted to carve out a role that was distinct from the obvious leadership in monetary policy that the Chairman appropriately

has—to find things that would help the Chairman do his job more easily and better by removing from him some of the other burdens of leading the Federal Reserve System.

One of my colleagues has been very kind and said that my success as Vice Chairman was that I allowed Greenspan to be Greenspan. Greenspan clearly wanted to focus on monetary policy and the economy. Fortunately, he grew comfortable with delegating a number of the Fed's other responsibilities to me.

The secret about being a successful Vice Chairman is that you have to realize that you're part of a team at the top, to use McKinsey consulting kind of language. A successful Vice Chairman is only as successful as the Chairman will allow him or her to be. A Vice Chairman can be successful only if he or she allows the Chairman to be comfortable and successful in the role that the Chairman himself has carved out. Finding this complementarity is the key. As I think about some of the other Vice Chairpersons, some have been more or less successful, depending on whether or not they were willing to accept the notion of complementarity. Being successful in this role is complementing and adding to whatever the Chairman wants to do, as opposed to trying to occupy the same space that the Chairman occupies.

It turns out, for those people who care about visibility, that you can get a reasonably high profile by putting together a portfolio of other important things. You get the support of your colleagues by doing these other important things. So it made, in my case, for a fulfilling and wonderful job.

Thoughts on Areas of Expertise Needed for a Well-Developed Board

MR. SMALL. What areas of expertise do you think are needed for a well-developed Board, or how would you think about developing the optimal mix of skills?

MR. FERGUSON. You need an irreducible minimum of macroeconomic capability on the Board. It cannot be only the Chairman who has world-class macroeconomic or market insight. You need several people with some of that skill. You also need people—as long as we're in supervision, which I hope will be forever—who have a real understanding of the banking system. You need people who have, or are willing to develop, an understanding of the payment system. You need people who are interested in interacting with the Reserve Bank directors and helping to manage the Reserve Banks. You need people who worry about the internal operations.

What that means is that the Board needs people who have a broad range of interests and skills, but preferably each person has a specialty that will enable him or her to find a place to lead and contribute. They should have capabilities broader than their specialty. The Board should naturally have macroeconomists, but a number of them also have to be at least interested in, and willing to learn about, payment systems. The Board should naturally have banking experts, but they should certainly be conversant with macro issues and be comfortable learning more about those topics. The Board should naturally have a few people who are comfortable working in an international setting, but they've got to bring the substance of monetary policy with them.

If I were trying to put together the ideal Board, I would think about having a team of people—each one of whom has one of these specialties, several of them may be overlapping—who collectively cover the whole. In addition to some of those specialties, there should be one or two subsidiary areas in which they can be credible contributors, even if they can't be the thought leaders. It has to be people who work well together, who respect each other's skill sets, and who are quite collegial and ready to step up and help out as much as possible.

I've been fortunate that since I've been on the Board, it's been extraordinarily collegial. People have respected each other's skills, and everyone has worked hard to build a secondary or tertiary interest to fill in behind those who have the primary strength.

Fed Culture

MR. SMALL. The Federal Reserve is often seen as a secretive entity. Do you have any light to shed on the culture at the Fed?

MR. FERGUSON. The Fed is not at all secretive. There are issues that can't be discussed in the process of making decisions, but the decision itself can be disclosed.

The Fed's strength is that it is much like the private sector—at least the firms with which I have been associated—in that we've got here a group of people who share a common set of values. The value here happens to be public service as opposed to serving a client. We have a group of people who are highly skilled in a number of important specialties, not just at the Board level but throughout the staff. We have developed a culture of meritocracy. At least the people that I see—I don't see all, but I hope it's true of all—are very meritocratic. They earn the right to be senior, if you will. It is not an institution that is driven purely by tenure. It's also driven by expertise, adding value, and showing knowledge and capability. And people value that.

It is also a place that has a high degree of collegiality. Not all divisions work perfectly well together, but there is a clear expectation that information will be shared across divisional lines—that sections will work well together, that we can easily put together teams of people from different divisions. I saw this myself when Monetary Affairs, Banking Supervision and Regulation, Reserve Bank Operations and Payment Systems, and the technology folks all worked together on some of the Ferguson 40 post-9/11 projects.

All of those elements of culture—ex[cluding] the public service—are the kinds of things that you'd expect to find in a first-class private-sector service organization: a consulting firm, law firm, or accounting firm. It's not the things that make the Fed different from the private sector, but the things that make the Fed similar to the best private-sector organizations that have given it strength and that make it different from the rest of the government. That's really the secret and the essence of the Fed. It brings together the best of public service and the best of what happens in a private-sector service organization. That gives us a great deal of respect in the private sector and also in the public sector.

The only advice I give to whomever may be interested is to hold onto that culture. No one can foresee the problems, but as long as we have the kind of culture and the set of values that the Fed has, the institution will step up and resolve whatever those crises may be.

Thoughts on the Fed's Future

MR. SMALL. Where would you like to see the Fed go in the next 10 years? Are there legislative changes or particular challenges or structural changes you have reflections on?

MR. FERGUSON. There are challenges that one can see. There are a huge number that we won't see until they unfold. We've got challenges with the structure of the Federal Reserve System. We haven't talked much about it, but the Fed has been in the process of analyzing the decline in the number of checks being written, and then acting on that knowledge by consolidating our check-handling facilities and, ultimately, even closing a few branches. I'm not sure how far we want to go down that path, but the Fed has got to come to grips with its own structure and modifications of its structure in the face of external changes.

The same thing has been true due to the creation of these very large banking institutions. The Fed is going to have to continue to come to grips with the fact that the structure of the

banking system has evolved dramatically. The nation has a small number of very large banks that must be regulated in a balanced and thoughtful manner.

A challenge for the Fed is the ongoing people challenge. The disparity between the compensation we pay versus the compensation paid at the best places in the private sector is, I suspect, going to get larger. The Fed needs to be able to communicate clearly to first-rate Ph.D. students, M.B.A.'s, and others why they should come to work here as opposed to earning more money in the private sector. We are starting to see the leading edge of those challenges, and we'll see even more of that going forward.

MR. MARQUARDT. On Federal Reserve structure, could you push a little farther in on the question of national versus decentralized balance in the organization?

MR. FERGUSON. My expectation is that we will have more and more services policy set at a national level: decisions about pricing, decisions on how we're going to deal with the largest counterparties, let's say, but delivery still being appropriately disbursed as our client base is appropriately disbursed. My model for this is my former firm, McKinsey, which has a fairly strict view of quality control and the kinds of work it wants to do, but delivery is done through 75 or 80 offices around the world. We're going to have, in some sense, a very loose tight structure: tight around national decisions, national policies, consistency in standards, thinking about technology—for example, interoperability—being determined nationally, but an important role for the Districts and the Federal Reserve Banks in the delivery of the service, because many of the clients are still local.

Think about what we do in community development or in the supervision of regional or community banks. That still has to be delivered locally. If we can manage that, it will give us a big advantage over other government entities where everything gets centralized.

Decentralization helps create credibility in an economy as large as ours, but it will give us the advantage of greater efficiency and nimbleness in making decisions if we recognize that some decisions just have to be made nationally. The Reserve Banks will participate in that but defer to the national decisionmaking group, whomever it may be.

It will still be messy, because if we're going to try to hold on to many of the regional strengths and have things done nationally, we are going to have the same kinds of frictions and tensions that we have now—and more committees than we'd like. But that is the cost of being appropriately decentralized while also trying to have national decisionmaking in some key areas. The Fed will continue to be relatively sloppy compared to the textbook hierarchical organization, but I expect it to get the best out of that sloppiness and continue to be effective because we will have a broad footprint that covers all the regions and gives us a lot of credibility.

MR. SMALL. Thank you very much.