Securities and Exchange Commission Historical Society
Interview with Donald Donahue
Conducted on August 2, 2011, by James Stocker

JS: This is an interview with Don Donahue for the SEC Historical Society's virtual museum and archive on the history of financial regulation. I'm James Stocker. Today is August 2nd, 2011. We're talking at DTCC headquarters on Water Street in lower Manhattan. Mr. Donahue, welcome.

DD: Thank you, James.

JS: To start out, where were you born and where did you grow up?

DD: I am a native New Yorker. I was born here in New York and grew up in the environs of New York. I have lived here the better part of my life.

JS: Did your parents work in finance?

DD: My father was actually the chief financial officer of a privately-owned manufacturing company. That's about as close as we got to finance. My mother actually worked on Wall Street when she was twenty years old, but that's going way back.

JS: Did you grow up wanting to have a career on Wall Street?

DD: Absolutely not. People of my generation sort of wound up here as something while they were maturing plans to do something else.

JS: While you were in high school, you worked part time on Wall Street?

DD: I worked part time from 1967 on through college, and then came full time to Wall Street in 1972.

JS: Where did you go to college?

DD: Columbia.

JS: What did you study there?

DD: I studied history, which is a very finance-relevant subject.

JS: It can be, certainly. How did you end up going from history back to working in municipal bonds?

DD: I had started working part-time for a municipal bond house on Wall Street and post-college, that was the opportunity that was there, so I stayed with it.

JS: Was that Barr Brothers?

DD: It was Barr Brothers, which was a small firm that no longer exists. It was founded in 1913 by the Barr Brothers, obviously, and another partner whose name I don't remember anymore. In the spring of 1929, they split the brokerage house. The other partner took the equities business, and the Barr Brothers were smart enough to take the municipal bond business. They survived. He did not.

JS: What was your position there?

DD: I rose to be head of the operations area – head of operations and compliance, basically.

JS: So you were in a good position to witness what they call the Paperwork Crisis.

DD: Very much so. I was very young, so I don't think I was old enough to really understand the profound consequences of what I was seeing. But certainly the seven-day-a-week workweeks, the sixteen-hour-a-day workdays, struggling to stay in control, watching many other firms fail because they weren't in control -

JS: You worked a lot of overtime.

DD: You worked a lot of overtime. You worked very intensely. It was a very scary time given the nature of the firms that were failing, and the nature of the exposures that they created for all their other counterparties. As I have said elsewhere, the punch line was that the volumes on the New York Stock Exchange in those days were what we would consider today trivial. It would be barely worth getting up for. Sixteen, seventeen million shares a day were really heavy volumes in those days. Of course, today that's nothing.

JS: This was also the era of the near bankruptcy of New York City in 1974. Was your firm involved in New York City bonds at all?

DD: We were very involved in New York City bonds. We were always involved in the syndicates. I intimately remember New York City "Threes of '80" – 3 percent bonds due in June of 1980, which were the first major bonds issued to unify the New York City subway system. We specialized in them, so we spent a lot of time dealing in city bonds and had a front row seat for the crisis that broke out in the summer of '75.

JS: When did you start working at the MSRB?

DD: I was at Barr Brothers when the municipal bond market came under regulation for the first time. The Securities Acts Amendments of 1975, for the first time, required municipal bond broker/dealers to register and to come under the panoply of SEC regulation. It was a very old-line firm. Partners who had been in the business for years, they had zero interest in dealing with regulatory compliance matters.

JS: So they didn't think much of the '75 Acts.

JS: They did not think much of the '75 Acts, and so it was kind of "who can we stick with this thing that we don't want to deal with." When you're the new guy, you're the person everybody thinks of. So that meant that, basically, I became the compliance officer for the firm de facto, not formally, and spent a lot of time dealing with the MSRB staff – got to know them, they got to know me.

When Dick O'Brien, who was the first assistant director of the MSRB, left in the summer of '77, they approached me and said, "We need somebody who's really been in the business – are you interested in coming down?" At that point, I was looking for something different to do and that's how I wound up going there.

JS: Was Frieda Wallison the director at that time?

DD: Frieda was. She remained there for a year. I worked for her for a year, and then Kit Taylor came in the fall of 1978.

JS: What sort of issues were you working on at the MSRB?

DD: It was still very much in startup mode. There were a lot of the operational issues, the basic recordkeeping rules, those kinds of things, they had been adopted but they were in the implementation phase. Those were subjects that I was very familiar with so it was, basically, you deal with this stuff, you answer questions, you deal with a lot of the implementation issues.

JS: It was still a fairly small organization in those days.

DD: I would guess we were twelve people.

JS: And now it's several thousand?

DD: No, it's never grown that much. I think it's perhaps twice as large. But it was very much working with industry people as they were struggling with implementing the rules, identifying where the issues were. As you well know, rules – the words may be perfectly clear, but figuring out how they apply in fact can be convoluted, and that was something that took years to unfold. As we were going through that process, municipal bonds in the time I'm talking about were still bearer instruments. $5,000 was the jumbo certificate, and it still had coupons attached. That practice possibly dates back to colonial times – I think there were coupon bonds back then.

Part of the challenge was to figure out how to migrate this industry into the twentieth century. A lot of work had been done at that point to develop automation for equities and more recently at that time for corporate bonds. It was kind of, "Gee, is it time to move the municipal market into the modernized settlement world?" So part of what I became involved in was figuring out how to migrate the municipal bond business into the depositories, into the clearing corporations. How does that happen?

JS: Was there ever any thought given to creating some sort of central exchange mechanism?

DD: No, because of the nature of municipal bonds. It's still true. You don't have heavy trading in the vast majority of the issues that are outstanding. They trade heavily when they are new issues. But within a month or two, they get put away, in somebody's safe deposit box in the old days, and they don't come out as frequently. So it's not something that's really exchange-tradable.

JS: During this period, you saw the first entirely paperless bonds.

DD: The book-entry only bonds became a thing in 1982. That was one of the first projects I worked on when I came to DTC in 1986 – promoting the book-entry only program.

JS: During this period, you started to work with the DTC for the first time?

DD: Both organizations existed at that point, with DTC and with NSCC and their counterparts elsewhere around the country because there were multiple –

JS: The regional depositories.

DD: Regional depositories, regional clearing corporations. Probably 1979, 1980'ish was when we really started to work with them to figure out how we were going to migrate municipal bonds into the immobilized environment.

JS: In 1985, you left the MSRB.

DD: Right.

JS: You worked for a year or two as the president of two companies that were involved in secondary market credit enhancements?

DD: Yes.

JS: What were those companies? What were you doing?

DD: We had a product that we were trying to market that I think of now as a precursor for credit default swaps. It was a kind of bond insurance policy that insured a particular bond as opposed to an issue, payable annually as opposed to paid by the issuer up front, which is what had happened with bond insurance before then.

The debt markets were in turmoil in the eighties because of the real spike in interest rates that had happened in the late Carter years and early Reagan years, that Paul Volcker was so involved in curtailing. A lot of people had old debt issues in their portfolios that were forty cents on the dollar underwater. Everybody was trying to figure out, “How can I make this more liquid?” They were trying to figure out, “How do I shorten the maturity date? How do I enhance the credit quality?” There were a lot of different programs that were coming out in those days to figure out how to solve this problem, and we were one of them and made a good shot at it. It was something that failed and then subsequently morphed into other things much later on.

JS: Perhaps a little bit ahead of its time.

DD: That would be a polite way to put it, yes.

JS: Right. So after that in 1986, you joined DTC.

DD: In 1986, it was the Depository Trust Company, that’s right. I started here in June of that year.

JS: What was your position?

DD: I was the vice president of planning. We were on the very cusp of launching what we referred to at the time as the same-day funds settlement system, SDFS. At that time, some typically short-term instruments settled against what people referred to as federal funds, meaning that it was money good that day. The vast bulk of securities transactions settled in what was referred to as next-day funds, meaning I would give you a check drawn on a New York clearinghouse bank, and it was good money tomorrow.

Same-day funds were for shorter maturity instruments. Municipal tax anticipation notes – I can't even think of the nature of the instruments anymore. It was the first foray the DTC had made into the world of things that were settled in money that was good on the date of the settlement. That's now the practice. But in those days, there was this split between the two types of funds that were used.

JS: What sorts of computer systems were you using at the time? Big bulky mainframes? Or were microcomputers already around?

DD: You know, I've joked with people. We were using computers that are probably the equivalent of the IPod you walk around with in your pocket today. They were system 390s probably. These were all mainframe systems, very dumb terminals. It was a revolution in those days to have a green screen terminal that was feeding to the mainframe and giving instructions to the mainframe and then processing. You know, they would process from that point on.

JS: Were you working during the stock market crash in 1987?

DD: I was, indeed. We had actually launched same day funds that June, I think, three or four months before the market crash. I literally remember walking down Wall Street on that

Monday night and how you had this emotional image that you were walking through this Berlin 1945 landscape. It was very calm, very quiet. There was no sign of the turmoil that had gone on. It was a very frightening day. Then at some time the following day, on that Tuesday when the market turned around and all the sudden started to head up, you could feel the relief in the air.

JS: By the early nineties, a variety of groups, including the SEC, had begun to advocate moving to a three-day settlement period for securities transactions. Is it fair to say that the DTC resisted this initially? It took a couple of years before that was adopted.

DD: That all flowed out of the '87 crash. There was a group formed called the Group of Thirty under the chairmanship of John Reed of Citibank. I don't know whether he was co-chair or he was the chairman. They came out with a number of recommendations, including that the settlement cycle should be shortened, and that we should discontinue the use of next-day funds for settling transactions. My recollection is there were nine Group of Thirty recommendations. Those were the two that were the very visible ones.

Bill Dentzer, who was the chairman and CEO of DTC at the time, was very much a skeptic about T+3.

JS: What was the concern?

DD: I think it was, "Is it worth the turmoil and worth the investment that's going to be involved in terms of the risk mitigation you're going to get out of it?" Bill certainly conveyed that that was his view in some of the market forums. I think it was very clear very early on that he was a minority of one at best. The industry made the decision in '92, '93 to go for this, and that was what led to the conversion that happened in the middle of that decade.

JS: You were working on the technical side of this issue. What sorts of changes were required to put this in place?

DD: I was working in operations at that time. There were huge implications for what was then known as the Institutional Delivery System, which involved transactions with institutional investors. How do you accelerate the process of getting the confirmation of that transaction to them, getting their affirmation that they agree with how you have described the confirmation? There were huge implications for the clearing corporations because they were doing all the broker/dealer-to-broker/dealer settlements.

There was a lot of work to improve the efficiencies of the process – changing the computer systems to generate reports much more quickly. I think it's fair to say the more earthshaking change was actually the conversion to same-day funds for all transactions.

JS: Why do you say that?

DD: Because there were enormous risk implications. How do you evolve the kinds of controls that existed in our SDFS system to deal with the reality that all of the transactions are now going through this? We had 4,000 or 5,000 transactions going through SDFS when it was in its original form. Those of us who were involved remember, literally, in the early days the phones would light up when one transaction went through because there weren't that many of them. Huge dollar amounts, but very small volumes.

You're now saying the millions of transactions that are going through the clearing house are going to go all through on a basis where, essentially, at the end of the day you're paying good money. The systems had to be extensively redesigned to ensure that we had the credit controls and the collateralization to make sure we could live up to the risks we were taking on.

JS: In 1995, you became head of operations at DTC.

DD: OK. (Laughter.)

JS: This was very soon after T+3 had just become reality.

DD: Right.

JS: What was the next step? Were you guys ready to move onto T+1 right away?

DD: T+3 went in – I'm not going to remember the date, but I would say it was in spring of '95. Same day funds was implemented in February of '96. When I stepped in as head of ops, the same-day funds conversion was still ahead of us. That took place in '96, and went swimmingly. It was like watching paint dry the day that the conversion happened. There was a lot of fallout from it in terms of processes that were not ready for that yet, and that had to be worked on in the ensuing months. But the real focus then became Y2K. You because you had the Euro conversion at the beginning of '99, and you had Y2K coming at people. That was what the focus of attention became at that point.

JS: That was a serious threat to DTC's business.

DD: It was a very serious issue for the industry. In the event, it was such a yawn, I don't think people realized quite how serious an issue it was. The fact that it was the non-event that it turned out to be was a tribute to all of the effort and the work that went into making sure that it was not going to be a disaster.

I remember we had eighteen problems in the conversion, of which seventeen you laughed about. The eighteenth was a real issue, and it illustrated, "Boy, if we had not done everything we did to make sure we only have one of these as opposed to thousands of these, it could have been a major headache."

JS: You had to go into the computer programming and change a lot of stuff.

DD: Right.

JS: Did you also use this as an opportunity to re-engineer some of your software?

DD: I think the byproducts for the industry were two. One of them was you got a lot more processed-focused – your processes in controlling how you did things and how you implemented changes became much more robust.

The other thing was there was a real culture of collaboration in dealing with the issue, and there were a lot of connections developed among people in the industry who were all working on that common project, because there was an enormous amount of effort that went into it. There were a lot of connections with people in the regulatory and the governmental apparatus that developed from that. Although it was totally unplanned, that all became critical on September 11th of 2001.

JS: We will want to talk about that a little bit later.

DD: Yes. You were dealing with people that you knew from the Y2K world, and that made a big difference in that week.

JS: At this time in the mid-nineties, was DTC already thinking about developments in Europe or, more broadly, in terms of global settlement processing?

DD: There was a real debate inside the organization as to how involved we should be in that. NSCC had what was called International Securities Clearing Corporation. They were offering some services globally. DTC had been very skeptical about that. Again, Bill Dentzer's view was "This is a good excuse for a lot of great tourism." But he really didn't see that it was something that was going to be a meaningful business opportunity for DTC at that time. He understood it was coming, but it was not here yet.

We did a lot of work in the Institutional Delivery System. How do we prepare this to handle transactions in securities other than U.S. securities? That was what the focus of attention in the nineties was.

JS: You just mentioned NSCC. Will you tell me a little bit about the relationship between DTC and NSCC at this time? Were they competitors? Cooperating?

DD: You have to remember that we were siblings. We had the same parents. We were born three years apart. DTC was formally launched in '73. NSCC was launched in '76. I think it's not unreasonable to say it was kind of the squabble that you get between brothers and sisters. There was a very close working relationship between the two organizations – the same-day funds conversion and the T+3 conversion were tributes to how well the organizations worked together.

JS: Did you share some of the same back-office staff or administrative staff, or was that totally separate?

DD: No, we did not. NSCC referred to themselves at the time as a management company, meaning that NSCC did program design, product design and service design. A lot of the actual operations of NSCC services were outsourced to SIAC. SIAC ran the mainframes for them. The stock clearing corporation was the operational arm of NSCC. I think what developed in the industry's mind in the late nineties was that NSCC and DTC are not necessarily looking at these issues consistently.

In fact, we did offer services that, arguably, were competing services – trying to support some back-office functions. DTC became very involved in handling branch deposits and offering custody services. NSCC was trying to build something called the New York Window, which was scratching at the same issue. I think the industry in the late nineties, said, "Look, guys, we're the adults in the room. We're going to sit you both down and make you guys play nice."

JS: So it was the industry that was pushing the two organizations towards merger?

DD: I think the organizations understood that, ultimately, they were going to come together.

JS: Were there any particular organizations that were pushing for that?

DD: No. There was a thing called Vision 2000, which was a paper that was put together by an industry steering group. One of the tenets of Vision 2000 was that the infrastructures should be combined. Part of what's going on – which we haven't talked about, of course – is the regional clearing corps and the regional depositories were all falling by the wayside.

JS: Right. Tell me a little bit about that process.

DD: There were originally five. I was not around for Boston – the Boston and New England Clearing Corporation. I was around for Pacific and Midwest and Philadelphia. Essentially, at varying times, their associated exchanges realized, "Look, this thing is kind of a millstone." It mattered enormously in the late sixties and early seventies and on into the eighties that you had a local depository or you had a local clearing house.

As technology evolved and as U.S. industry integrated nationally, it didn't matter that you had the depository down the block. Who cares where it is? So you saw Pacific in '87 make the decision, "We're getting out of this business." Midwest was in late '95, and then Philadelphia in '97 or '98. In each case, it was like, "Look, we don't want to do this anymore. Would you take this over from us?" There was a conversion effort that we had to go through in each case.

JS: How about the regulators – how did the SEC or other organizations, or the Congress – feel about this? Was there any resistance to that at all?

DD: No. I don't think there was any push back. I think, if anything, that came more from the industry people that said, "I want somebody to keep DTC and NSCC honest." You certainly heard that at the time – that "we want competitors so that you guys don't have free rein."

As people got comfortable that we were not going to run riot – it was kind of an absurd assumption to begin with – but as people got comfortable with how effective the industry governance over DTC and NSCC was, that made them more comfortable with letting these other institutions close the way they did.

JS: Do you think it also flew under the radar a little bit because it involves quite technical issues? And maybe your average Congressman may not understand exactly what's going on in the plumbing of Wall Street?

DD: You know, the plumbing of Wall Street matters only when it gets blocked, right? People don't pay attention to it when it works. They pay a lot of attention to it when it doesn't work. I think, in part, it was a tribute to the effectiveness of both organizations that people were very comfortable with the fact that, in reality, we were becoming a monopoly.

JS: At this time, you did something unusual for a monopoly organization. You started cooperating with one of your competitors, with Thomson, on an electronic clearance system. Will you tell me a little bit about how that relationship developed?

DD: There's a long history there. There was, as I said, the Institutional Delivery System. In the mid-nineties we started evolving that to handle transactions outside the States. We opened a London office, I would say in '95 or '96, to market International ID, as we called it. NSCC and DTC jointly agreed to use a common office in London. There was a growing belief in the industry – "We need an institutional, an automated confirmation system for institutional transactions globally."

I believe it was in '98 that the Global Straight Through Processing Association was formed. It was basically to create an institutional trade confirmation system that was going to be a global system. DTC bid on the GSTPA business. Thomson was involved in a different part of the transaction sequence, not in bidding for GSTPA that I know of. A decision was made by the GSTPA consortium late in '98 that they wanted to go with a never-tried system that was going to be built in Europe.

There were all kinds of politics that are not worth wasting time on. DTC and Thomson then said, "OK, given that we have this competitor being created, we need to respond to that." That was the triggering point that created a conversation between Thomson Financial and DTC. Should we combine our respective offerings into a unified electronic confirmation system, which was going to compete with GSTPA's system? That was what created the marriage.

JS: Just to go into the politics just a little bit, the GSTPA was an organization that had lots of European representation on it, I think.

DD: Right.

JS: Do you think that there was some concern about an American company coming into the business?

DD: Sure. I think everyone believed that one of the influencers was that they wanted a provider who is going to have a global perspective from day one. There was a belief at that time that DTC may not necessarily have that point of view. Certainly, that was part of what led to the decision. Then, of course, GSTPA did this spectacular belly flop. They never opened their doors, partially because the data they were working with, the business case wasn't what they thought it was.

JS: So it worked out in the end?

DD: It worked out in the end.

JS: By the end of the 1990s, the merger was about to take place. In 1997, you had become chief information officer of the DTC. What sort of technical challenges did the merger pose?

DD: There was the handoff between Bill Jaenike, who was then the chairman and CEO, and Jill Considine was in the beginning of '99. You had the Y2K things hanging over everybody's head. Jill came in and essentially said, "I'm going to spend the next year getting to know the lay of the land. I understand that I can't do anything in '99. I'm not going to be able to do anything until we are through the eye of the needle."

So in '99, the challenge was trying to put the organization together. Basically, it was Noah's Ark. You had two of everything. You had two CIOs, had two heads of finance. Come January – I think it was like January 26th of 2000 – that's when we were restructuring the place. We were completely altering the architecture. We created a very forward-thinking product development division that had what we now refer to as ADM – applications development – as part of it. Product management and applications are together. Operations and services, including IT infrastructure, are put together. That was reporting to Dennis Dirks, then DTCC's President and Chief Operating Officer. The other division reported to me. The technology challenges were dealing with the reality that NSCC's technology processing was outsourced to SIAC. That was where the big money was. When the study was done on the benefits of the combination, there was an estimated $60 million savings annually from putting the organizations together. Forty-plus million of that was from combining the technology.

The real focus in the technology from the merger was how do you essentially in-source all of the clearing corporation's activity into the existing DTC technology plant? That eventually was completed, I think, in 2005. But there was quite a bit of organizational work that had to be done to make that happen.

JS: In 2000, you became the head of customer marketing and development. What did that position involve?

DD: There were two key components: product management, which was not something that the legacy organizations had really had, and applications development. A bit of strategic planning was involved in that – to think of clearing and asset services and mutual funds and insurance as businesses. How are we going to run these things as businesses? How are we going to set up the financials so we can think of them as being businesses, and evolve them as being businesses? That's what the focus was.

JS: At this time, DTCC and Thomson were getting ready to launch Omgeo.

DD: Correct.

JS: Then were there also plans in place for the other divisions that sprouted over the next year, so Fixed Income Clearing Corporation.

DD: Fixed Income Clearing Corporation was at that time Mortgage Backed Securities Clearing Corporation and Government Securities Clearing Corporation. The decision was made – I think it was in '02 – to put those together and bring them in under the DTCC umbrella, and that happened at the beginning of '03.

JS: I'd like to talk to you about some of these developments in more detail. But first, I wanted to ask you about the impact of an event that might have affected them all: 9/11. Were you working on 9/11?

DD: Absolutely.

JS: Do you recall that day?

DD: Painfully. It was Employee Appreciation Day at DTCC. What was certainly part of my memory of that day is Jill was very insistent that the senior staff was going to all be the chefs for Employee Appreciation Day. We had this thing down in the Plaza where everybody was going to go have a cookout. I don't remember whether I was doing – hamburgers or something – but we all had to play that role. As the quasi CIO, I had been all set to go to a technology conference that was scheduled for that day. Then when Jill got so adamant that, "No, everybody has to be here" – I actually still have my chef's hat – I cancelled out of the technology conference.

JS: There it is, the paper chef's hat.

DD: The chef's hat.

JS: With a star on top.

DD: The technology conference was at Windows on the World. No one who went to the technology conference survived that day. One of the people we lost that day was someone who was a member of our technology advisory committee who was a CIO at Instinet, who was giving a presentation when the first plane hit. Steve didn't get out. Obviously, part of my dominant memories is how close that came.

We saw – I'm sure you know – everybody thought the first plane was some commuter plane that had lost its way. Ray DeCesare, who was the head of IT infrastructure at the time, and I were in the technology command center, which was on the twentieth floor at 55 Water at the time. We're looking at the north tower with a huge plume of smoke coming out. Ray was a pilot himself. I remember him saying, "There's no way that was a prop plane." He knew. You could tell Ray was uneasy as to what all this meant. Then we all reconvened the management committee meeting that had been interrupted by the news and while we were reconvening it, the second plane hit and then we all knew what we were dealing with.

JS: How did 9/11 impact DTCC's security planning over the next few years?

DD: We are very proud that we never, ever missed a beat that day. We settled about $260 billion worth of transactions that Tuesday. We settled about 1.8 trillion that week. By hook or by crook, people were working at the backup site that was over in another borough. We kept the place going and kept the system very stable.

But the reality was your business continuity plan is predicated on the idea that you are out, and other people have to work around you. The reality was we were fine, and it was the spokes that were the problem, not the hub. Number one. Number two, all of our business continuity arrangements were based in New York because we were based in New York. Everybody who worked for the company, except maybe eight people in London, was in the headquarters building on that day.

I think it's a tribute to how seriously everybody takes their responsibilities that we presented the situation to the DTCC board in October of '01. Within perhaps four weeks of the event, we presented to them the changes in the business continuity provisioning we had to do – meaning we have to establish a data center well away from the New York area. We have to establish an operating site well away from the New York area. The board said absolutely. I mean, they didn't blink. They said, "Absolutely, you have to do that, and we understand there are going to be millions of dollars involved in doing that, but that's something you have to do."

We opened a remote data center in the spring of '03, and we opened the remote operating site in December of '04. A lot of planning had to go into making those things reality, but that was set in motion within four weeks of the actual event.

JS: We just talked about the Fixed Income Clearing Corporation a little bit earlier. What was the motivating factor behind creating that organization? Was it pressure from the customers?

DD: I think it was in part that the combination of DTC and NSCC had worked so well and people realizing, "OK, I don't need HR departments in every industry utility." The industry was basically paying for four HR departments. Four technology infrastructures, four operating groups. It worked once, why shouldn't we just keep repeating this, especially since we own all these things? That really was what drove it. At that time MBSCC and GSCC were separate organizations.

JS: How long had MBSCC been in existence?

DD: I believe since the late eighties. I may be off – it might be earlier than that. MBSCC was originally created by the Midwest Clearing Corp. What MBSCC serviced were Fannies, Freddies and Ginnies – Fed-wireable securities. GSCC is servicing Treasuries and Federal Agencies – also Fed-wireable securities. Why are these things separate organizations? So issue number one was put them MBSCC and GSCC together. Then issue number two was that we had consolidated the infrastructure at DTC and NSCC, so we were getting the benefit of one unified structure. Why shouldn't we fold this thing MBSCC and GSCC into that DTCC and leverage that commonality yet again? Which is what they did.

JS: Another development during these years was the creation of the DTCC Deriv/SERV, which was a post-trade matching service for credit default swaps. Tell me a little bit about the creation of that entity.

DD: We started getting comments from our members in, I would say, in mid-to-late '02 that the next accident that was waiting to happen was the over-the-counter derivatives market. There was a sort of growing business in this very newfangled thing called credit default swaps. People were spending an enormous amount of money on matching trades. The average cycle time for agreement on a credit default swap transaction was measured in weeks. Everybody said, "This is a major crash waiting to happen, would you get involved in this?"

Deriv/SERV was created, essentially, to create an automated trade confirmation system, which is what Institutional Delivery System – the ID System – is, and which is what NSCC's services involved. Deriv/SERV created that same capability for credit default swaps. We opened our doors in June of '03. We had people start to use it in the fall of '03, and it just took off like a rocket. I think the average daily volumes in credit default swaps when we launched were somewhere measured in the high hundreds, like maybe 1,000 transactions a day. Within three to four years, we were routinely doing 30,000. I think it was in the summer of '07 that we actually peaked close to 60,000.

JS: Did you work together with ISDA on creating the model?

DD: ISDA was doing a lot of the standardization work on the contracts, and we were essentially automating what they were standardizing. We could then create an automated capability that would do that. There was a very definite synergy between the two efforts.

JS: What sort of impact did this have on the market for derivatives? Do you think it facilitated the use of derivatives?

DD: I've described it to people as the dog that didn't bark in the nighttime. The credit default swap market was the meltdown that didn't happen in 2008. It didn't happen because people were so focused on improving the infrastructure. They realized that there were serious risk issues because of the way they were clearing and settling CDS, and that a serious robust infrastructure needed to be built. As that market grew, the Fed in New York under then-president Geithner was very active in pushing the industry to develop the infrastructure that was needed.

That is how Deriv/SERV evolved from the '03 to '07-'08 timeframe. When all hell broke loose – you have to think about if what was true in '03 – that we had hundreds or thousands of contracts that we think are out there but haven't been agreed – if you take that and you say, "What would the world have been like in the summer of '08 if that had been true when Lehman went down?" It's terrifying to think of what would have happened if that hadn't been addressed in the very proactive way when it was addressed.

JS: OK. We'll talk about the financial crisis a little bit here in just a moment. Another product that was launched during this period was the Global Corporate Actions Service.

DD: Right.

JS: Was that another thing that industry was asking for, or was it just a need that you guys saw?

DD: No. Some of the industry leaders were saying, "Look, we are all supporting individually operations to manufacture corporate actions data. We're all manufacturing exactly the same data in exactly the same way. Why are we each individually doing this? Why aren't we creating something that can do it once for all of us?" That's really where GCA came from.

JS: You also closed down the Emerging Markets Clearing Corporation during this period.

DD: EMCC came into the complex when DTC and NSCC merged. EMCC was kind of limping from day one. There was never the volume that made it essential that there be a separate clearing corporation for that type of transaction. It became clear that that wasn't a market that was going to take off. So the decision was made that since EMCC can't cost effectively do what it is that it was founded to do, we should just shut it down, which we did.

JS: During this period, some of the core aspects of DTCC's older businesses were changing. One of those related to custody services. In the past, thirty years previously when DTC had been created, the buzzword was immobilization. Now it was suddenly dematerialization. Tell me what had changed to make that possible.

DD: Well, the success of immobilization made it possible. I would say in the nineties, you were looking at immobilization rates that were, in the worst case – maybe 80 percent of an issue would be sitting in DTC's vault. For increasingly all debt securities, we had the entire issue, or we had ninety-nine-point-something percent of the issue in our vaults. Certificates basically went out of people's lives. Most holders were used to a book position, getting a statement – so why are you creating certificates when 99.9 percent of the people who are investing in your issue don't want them?

JS: In the past, one of the arguments against getting rid of them was that state laws required there to be certificates for stock issuances. Had that changed?

DD: It has changed in many states. In some states, it has not. That's really why you went to what we refer to as BEO – you created a certificate, but it was held by DTC, and no one actually got anything beyond that. My example of that was always my parents, who were investing in book-entry-only bonds. They were in their seventies at the time. They had a bit of a concern when they realized that I was the person who was responsible for their holdings. They were kind of somewhat uneasy about that. [Laughter] They got past that. But it's an example of how investors no longer wanted the stock certificates anymore.

They weren't taking them, so why were issuers creating them? We now use the phrase dematerialization, meaning that there is an electronic record, but you don't actually have any physical instrument at all.

JS: I wanted to ask you about one of the regulatory challenges that DTCC faced during these early years – Regulation SHO, which went into effect in September of 2004. Now this was passed in regards to a practice known as naked short selling. Would you mind telling me what naked short selling is and what it has to do with the DTCC?

DD: Naked short selling relates to the obligation that a seller of securities has at the time, predating SHO. A seller has to know that he is in a position to be able to borrow the securities, if he needs to, to be able to satisfy the transaction that he is selling. It does not say that he has to have them, or he has to have them locked up – it simply says that he has to know that they are in the market. He has to have gone through a process of validating that they were in the market. If he then consummates the transaction, the expectation is that he's going to go and borrow them.

What some market commentators were alleging was that people were not actually borrowing – they were selling without making any effort to actually cover the position through a borrow or otherwise, and basically failing on the transaction. There were some people, Patrick Byrne being a very prominent one of them, who were alleging that there was major stock manipulation going on because people were doing that to a staggering degree. And that's known as naked short selling. That's what the phrase means.

JS: Was there any way to verify what people were doing in these cases of failure to deliver?

DD: I'm not sure what you mean by verify.

JS: Just to understand what the motivations were behind it.

DD: I'm still not sure what you mean.

JS: OK. You just said that there were allegations that some people were intentionally causing these fail-to-delivers in order to manipulate the market. Was there any way to figure out what people were trying to do?

DD: I think there was such a staggering amount of blather around this whole issue. Overstock – there was a very substantial short interest in Overstock. People thought that it was overpriced, which obviously is what drives a short sale, and there was an expectation that it was going to decline. There was a very substantial fail position that built up in Overstock transactions, for reasons that you really can't figure out.

Mr. Byrne's allegation was that that was reflecting the fact that there were a lot of naked short sales in Overstock. Our role at that point was to simply inform the regulators of where we saw fails that were building up, which we were doing. If the level of fails exceeded a certain level, we were obligated to tell them, "This is what the numbers look like" – which we were doing. They were actually publishing that information, as they were obligated to do. But there were all kinds of allegations made about we were manufacturing stock, and blah, blah, blah. It was kind of a crazy time.

SHO was adopted to try to curtail those allegations and curtail the activity, the fire that was underneath the smoke. The SEC subsequently adopted fail closeout regulations some years later, which brought the curtain down on the whole issue. I don't think anybody talks about naked short selling being an issue any longer.

JS: From 2004 to 2006, you served in various positions dealing with possible threats to financial infrastructure. First, you were the sector coordinator for the U.S. Banking and Finance Sector as part of the National Infrastructure Protection Plan. Would you tell me a little bit about that initiative and how you became involved in it?

DD: This was one set of activities. It's not several different things, if you're reading it that way. This is all post-9/11. There was a lot of focus on how we assure that the financial services sector can continue to operate without any road bumps, regardless of what the nature of the threat is. To some degree, this actually predates 9/11. This goes back to the late 1990s. But post-9/11, it became very focused on what became known as critical infrastructure protection. How do you know that critical payment systems, critical settlement systems can withstand a 9/11-like event?

The public sector and the various financial regulatory agencies worked with the Treasury Department to get a private sector counterpart that could work across the public-private divide to ensure that we're all agreeing on what right standards are, we're all getting information out to people so that they understand how they should be dealing with some of these resilience issues. So in '02 Treasury and the private sector created a thing called the Financial Services Sector Coordinating Council, to give it its short name, and I was asked to chair that in '04 to '06.

How do you build up the resilience of the financial sector? One of the lessons from 9/11, as an example, is how dependent we were on the telecommunications infrastructure. How do you assure yourself that your telecoms are resilient? Because we had learned that ours wasn't. I think pretty much every financial firm realized that there were issues in that area. One of the things we did when I was the sector coordinator was to publish information about how to design and test telecoms networks. What kinds of things do you need to know, and talk to your telecom provider about, to be sure that your telecommunications services were as resilient as you thought they were?

JS: In 2006, you became president and CEO. What were your priorities upon assuming those positions?

DD: Back in the Y2K days, we knew that there was going to be a huge bubble of pent-up demand in 2001 and 2002. Things that people wanted to get done. We kind of assumed that there would be twenty-four months where we're all going crazy, and then it was going to calm down again. It never calmed down. The level of activity notched up post-Y2K, and then stayed at this much higher level. The whole T+1 thing dates to those days.

In '06, '07, the foray back to Europe was on the agenda, and derivatives had become a very significant business for DTCC. We had invested an enormous amount of corporate energy during the first part of the decade in building our applications development infrastructure to a very high level of performance. Now that we have this Maserati, this very high-performance applications development group, what are we going to do with it? Where are we going to drive? Those were the issues that got a lot of focus at that point.

JS: When did the financial crisis first come on your radar?

DD: Going back to your question a moment ago, we made a decision in the spring of '05 – Jill and I – and this will sound crazy. We hadn't had anybody fail on us recently. The last failure we had, I think, was sometime in 2001. There had been staff changes in our risk groups and our legal groups. A lot of the old experienced veterans were doing other things. So we made a decision in the spring of '05 that we were going to start a practice of war-gaming participant failures. Basically, running a drill so that when a failure happens, people have done it before – they're not really doing it for the first time.

We had the drill on Columbus Day of 2005. In the middle of the drill that day, someone – the head of risk – came in and said, "We just lost a participant." That was when Refco went down – literally, on that day. That was when the problems that would subsequently lead to the dissolution of Refco became public. One of the things we found when we did the drills, though, was that the systems we used for handling a participant's failure were sized for the kinds of participants who had failed to that point. Maybe thirty firms over the history of the organization had failed. All of them were smaller firms. We found then that the thing didn't scale quite as much as we thought it should scale. That put on the agenda the need to make the failure-to-settle and the closeout systems, as they are referred to, much more scalable.

They have got to be built so that even if the largest firm goes out, they can handle that. We went through an eighteen-to-twenty-four month development process. We iterate, we then tested it – where's the problem? Go back, fix the problem, iterate again.

In November of '07, we did the first drill where we took one of the top ten firms and we simulated that that firm had failed. Do the systems work? Are they able to handle it? We proved that we could actually withstand the failure of a firm of that magnitude.

JS: Are you able to tell me which firm that was?

DD: No, I'm not, because that firm's still around. But the following June – our practice then was to do this every six months – the following June, we actually did Lehman. So we actually did a simulated failure exercise involving Lehman three months before Lehman actually failed.

That bridges us into the whole topic of the financial crisis. We really began preparing for the financial crisis in the spring of ‘05. We knew that with all of what was going on, we needed to start preparing for the reality that we could face a failure of someone who would be more consequential than the very small firms that we had lost.

JS: Bear Stearns would have been the first really big one that actually happened.

DD: Yes.

JS: That was in March 2008.

DD: Correct.

JS: Do you recall those days, what the experience was like here?

DD: Obviously, the smoke began to be visible the previous summer. But I certainly remember getting the call Friday morning with the announcement of the transaction that had happened, and that JPMC was going to step in and guaranty their debts. I actually was on the phone with somebody from one of the regulatory agencies and reacted with an unprintable exclamation – I was very embarrassed I had said this to this person – because that was a stunner when that announcement came. Again, we learned from Bear Stearns. We identified some problems from that weekend. By the time we went to Lehman, we had figured out what we needed to do to rectify those problems before Lehman actually failed.

JS: The Bear Stearns situation actually led to the June planning for Lehman?

DD: Well, the June exercise was on the agenda after the prior November exercise – we were trying to do them twice a year. We now do them annually. But we were trying to do it twice a year then. Post-Bear Stearns, the idea of a Lehman failing had become far more thinkable. Our risk officer at the time actually said, "You know, I really want to do Lehman, because I'm kind of nervous about them."

JS: Will you tell me a little bit about the Lehman experience from the perspective of the DTCC? I mean, this is one of the top three users of the mortgage-backed securities division.

DD: Correct.

JS: Many other divisions also.

DD: Lehman left us holding the bag on about $550 billion worth of transactions. The thing that sticks in my mind was when we realized how massively short Lehman was in government bonds. There were certainly moments during that weekend when we sort of felt like we were looking off the edge of a cliff.

Lehman Holdings went down on September 15th. The Lehman broker dealer, our member, actually survived for another seven or eight days. They were sold off to Barclay's the following weekend. They then failed, the legacy firm failed Tuesday after the Barclay sale, and then we're stuck with the securities transactions that we were stuck with.

JS: Tell me about your interactions with the regulators during this period of Lehman's collapse. Were you just on the phone with them constantly? Were they aware of your planning? Were they concerned?

DD: Of course. I mean we all read Andrew Sorkin's book. All of the people here had the same experience. We were in a meeting with regulators on Saturday, September 14th, and they come in and we're saying X. We told them, "this is really what's going on, this is what the numbers look like," and they all leave. Then you read Andrew's book, and you read about the meeting that happened immediately before the one we were at, and then what happened immediately after, and you sort of saw, "Oh, wait a minute. That's why they said – blank." There was clearly a lot of interaction with them.

The DTCC board risk committee was meeting two to three times a day throughout that period. A lot of information was getting fed to the regulators every morning. The OTC Derivatives Trade Information Warehouse existed at that point. We were feeding them [information on] the open credit default swaps on Fannie and Freddie. These are the open credit default swaps on Lehman. These are the open credit default swaps that have Lehman as a counterparty, one side or the other, so they understood what the exposures looked like.

There was a market rumor in October that the amount outstanding of CDS – let me see if I can remember this correctly – the outstanding obligations under credit defaults swaps on Lehman had a total payable that was $400 billion. That was the rumor. People were like, "Oh, my God. The world's come to an end." We were able to go into the trade information warehouse and tell the regulators and then publish the actual outstanding obligations, somewhere around $6 billion. It actually was $5.2 [billion] in the outcome.

There was a lot of back and forth. "What can we tell you that you need to know to handle your regulatory responsibilities? Can we do something to help calm the market down?" – because people thought the world had come to an end.

JS: Panicking.

DD: So there was a lot of that back and forth and a lot of that exchange. We, as I said, inherited somewhere north of half a trillion dollars of obligations for Lehman. We had in motion, within days of their failure, a liquidation process. We were all kind of stunned at how successful it was. We actually made money on the Lehman liquidation. We didn't take a penny from their clearing fund, and I think we actually made a profit on the liquidation that we turned over to the trustee as well as turning over all the margin deposits they had with us. Most of them – I think we still have some.

JS: After the Lehman collapse, in December 2008, DTCC also had to deal with the Madoff issue. How did that compare to Lehman?

DD: It was more tragic than financially worrisome. One of the "Trivial Pursuit" questions about this organization is that when we did the simulation in '05, we for the first time wanted to use a real firm's data, and the firm was actually Madoff. Totally serendipitously, obviously. We didn't know anything. The numbers were just a fraction of the numbers in the Lehman case. It was more, "How are we getting information to the regulators?" I think it was Verizon. They wanted data on how much do we show Madoff has in Verizon? We said, "Well, we show them having 278 shares." And they had records that showed them long 2 million 278 shares. We were like, "We know the 278 part."

JS: I understand that over the past few years, DTCC has created a risk management group to help look at methodologies for the liquidation of participant firms' assets. Would you mind talking about that a little bit?

DD: There always has been a risk group. What has evolved is that we now have three risk groups. We refer to them as Enterprise Risk Management, which is the day-to-day, how do we manage credit liquidity, market risk, the people who handle the liquidations.

That's ERM. We have an Operational Risk Management group that's focused on operational risk as a discipline – what are the exposures that you have from processes, procedures, technology, whatever, and things that can go wrong in those spaces. The third is a Systemic Risk Office, which thinks about the financial system as a whole – what are the risks in the system? How are we contributing to those risks, how are we helping to mitigate those risks, what can we do to improve on that?

The ERM space, which is how we sure that we can perform on the guarantee that we give our members, has gone through an enormous renovation post-crisis in terms of how bulletproof are the risk models that we have? What do we do with results from stress tests? How do they get reflected in the margin deposits that we're asking our members to put up? How are we measuring them? Are we able to give people margin calls intra day routinely as opposed to specials? We have always had the ability to do it as an exception. Now we're going to routinely start doing this. What needs to happen so our systems can handle that? All that kind of activity is what has flowed out of the financial crisis for us.

JS: Today is August 2nd, 2011. It was the final day for Congress to raise the debt limit. Was DTCC at all concerned about a possible increase in trading of treasury bills?

DD: The politically correct answer is of course not – we knew Congress was going to do this. As with any other financial institution, you have to do scenario planning. You have to say, "OK, let's assume for the sake of discussion what would happen if the Congress didn't do it?" We have had people working on that for the last several months. We had an event management group that began meeting yesterday, which had been having meetings, but began meeting daily. This morning we knew the decision, and we're going to call off the rest of the meetings. But clearly, there were preparations that had to go on for what would happen if the bills that were due on Thursday were not paid off. What were we going to do? How were we going to value them? All those kinds of issues are things you have to think about routinely.

JS: Mr. Donahue, thank you very much for taking time to talk with me today.

[End of Interview]