Securities and Exchange Commission Historical Society
Oral History Project
Interview with Brandon Becker
Conducted on January 8, 2010, by Kenneth Durr

KD: Interview with Brandon Becker, January 8th, 2010, in Washington, DC, by Kenneth Durr. I want to start by covering your background. You went to undergrad at Minnesota.

BB: Correct.

KD: And you got two law degrees.

BB: Correct.

KD: Tell me about what you were thinking when you went for the master's. Were you thinking of teaching? Were you sure that you were interested in securities law? How did that work?

BB: I graduated from University of Minnesota in 1974, and I'd always known that I was going to be a lawyer. From there I went to San Diego to get my J.D. degree. San Diego's a wonderful law school and I had a great time, but it certainly doesn't have the national reputation of a leading law school. One of my professors had said to me that he didn't particularly recommend master's programs, but he thought that they were especially good for people at schools like San Diego who wanted to burnish their credentials. I had always had certain interests in terms of being an academic, and the law master's was going to be helpful in that regard. I was accepted at Columbia and decided to go. I was also hired as what was called an associate in law. I think they still have these associates in law. They're recent law graduates who help with the introductory legal research and writing course. I was both a graduate student and an associate in law.

In the fall of that year, I took a course on the regulations of securities markets, co-taught by Walter Werner from the law school and Sidney Robbins from the school of business. Walter Werner had been the director of the Office of Policy Planning at the SEC during the special study in the sixties, and Professor Robbins had been, if I recall correctly, the chief economist of the Special Study. I enjoyed that enough that I did my thesis with Professor Werner, and he suggested and I followed up with him that I do my thesis on the role of the regional stock exchanges in the national market system, which I did. I used as a base an assessment of what was then called the Pacific Coast Stock Exchange, which I did by returning to San Diego after my academic year was up, and finished up my thesis over the course of the summer. That's where I met a variety of folks on what was often called the P-coast at that time.

KD: It sounds like you had a pretty good entrée into the SEC then if you were interested in going there.

BB: I'm not sure whether I had a good entrée within the SEC because this was at a time when—I don't think they can do this anymore—when you interviewed, and in particular when you interviewed at the Division of Market Regulation, they gave you a test. When you came in for an interview, you actually had to take the functional equivalent of a law school exam, which I did. But I think I was the first and probably only hire that they've had who had gotten a master's degree in market structure. While I talked to Enforcement and the Office of the General Counsel, I ended up in the Division of Market Regulation and it seemed to be the right fit.

KD: Not too surprising. You went in as a staff attorney, and I saw that the official name was in legal policy and trading practices.

BB: Right.

KD: What did that encompass?

BB: That was not dissimilar to the way one of my predecessors, Rick Ketchum, arrived. It was a joint assignment between trading practices, which was primarily focused on the administration of rules that have since been renamed and renumbered such as 10b-6, -7, and -8 which regulate trading activity in and around offerings of securities as well as repurchases of securities by issuers, as well as assisting in market structure. I had a dual appointment in the office that dealt with the trading practice rules and the market structure office.

KD: Which one did you find yourself spending more time with?

BB: I found myself spending a lot of time in both offices, and I eventually went to my boss at the time, George Simon, and said that doing two jobs was not working very well and that I really did want to work in market structure. Having said that, although I was interviewed at the time by my assistant director, Doug Scarff—who at that point reported to Lloyd Feller as associate director—and I had expressed a preference in the spring of '78 to begin work in the market structure office; the day I arrived I was introduced to Lloyd. Lloyd informed me that I would be working in both offices and that I would be a better person for it, and I think he was certainly correct.

KD: So once again you're doing two different kinds of—

BB: Yes.

KD: Tell me what some of the projects you were working on were. What was notable about these assignments?

BB: One project that I worked on was something called the ITS line cost amendment, which was an amendment to the Intermarket Trading System plan to allocate the cost of administering various data communications lines.

KD: So was ITS not out yet?

BB: ITS is out, and I'm working on the review and approval of an amendment with respect to that plan. My activity in that regard was basically notable—without trying to breach any of the Commission's confidences—that when the approval order came up for consideration by the Commission at the time, then-Commissioner Roberta Karmel said that the memorandum with respect to the approval of this amendment was the most boring memo she had ever read during her entire tenure at the Commission, including her tenure as a staff member. There were dry elements of the economics of regulatory oversight of trading systems, but we tended to work on either M&A-related transactions on the trading practices side where people needed various exemptive relief or other interpretive guidance with respect to trading in and around those activities, or we were working on various of the national market system initiatives such as a rule regarding timely reporting of transactions, as well as a rule with respect to the definition of qualified securities, which securities were in and which were out of the national market system.

KD: I would have assumed that the national market system would have been the big driving force at this point. It had only been a few years, and you've got this big task to put things together.

BB: The Commission had come out in January of '78—I started in October of '78—with its national market system white paper. There was still the reaction to that, and then trying to figure out what elements of that white paper would be implemented on a going-forward basis. Some of the more dramatic notions that were discussed in the white paper, such as a public limit order book or the repeal of off-board trading restrictions, ultimately were not implemented at that time, although in retrospect, thirty years later, I think it's fair to say that many if not most of the ideas represented by that thinking, certainly the repeal of off-board trading restrictions, have proven to be correct. Whether or not they should have been implemented more quickly is a question of transition.

KD: That's Rule 394?

BB: 394 that became Rule 390.

KD: Was there some hesitation on the part of the Commission to go forward with that, or was there just a sense that it wasn't possible at that date?

BB: The commentary raised significant concerns about the potential for it to create problems, both in terms of pricing integrity as well as competition. You had two sets of arguments, among many, but one would be that you wouldn't get the best price for the public, and the second would be that you would undermine the competitive positions of the various broker-dealers who relied upon a centralized execution to ensure fair pricing. You see echoes of that debate now in the discussion of dark pools and the discussion about trading away from the central market. In 1978, you still had an industry that was reacting to the elimination of fixed commission rates, so you had tumult in the industry and you had

concerns about whether further structural reform was for the good or not, and then you had a variety of more theoretical benefits that you could show that were not as concretely identified. I think in that environment, the Commission was reluctant to pursue the theoretical benefits at the risk of the parade of horribles that might have taken place.

KD: Right. Not wanting to preside over the demise of the market.

BB: Exactly.

KD: Sometimes there's this legendary conservatism by the Commission whereas the staff is more gung ho. Was there any distance between the Market Reg people and the Commission as far as how far you guys wanted to go?

BB: I don't think there was a significant difference between the Commission and the staff, other than that I think at various times the staff might have pushed harder on the repeal of off-board trading restrictions a little quicker. I don't think that that was, how shall I say, anything other than a good faith assessment of the relative risks of doing it versus not doing it. There I think it's accurate to say staff versus Commission. The other thing I think that that reflects—without trying to presume a level of sociological analysis that I couldn't support—is that when you're working day to day on a topic and you're the staff and you've read all the comments, you've talked to everybody in the industry, you've lived through these issues a couple times before, I think you can get a greater confidence level that it's worth taking the risk than if you're a Presidential appointee and you're dealing with the enforcement calendar and the corporation finance calendar, and you're worried about what's going on with mutual funds, and you have just X amount of time to really pay attention to these issues, and you're being told that you think that there will be some benefits but there's this fat tail that might produce some harsh results. That's very hard to get confident about.

KD: That was an understandable dynamic.

BB: I think so. And it's hard when you're the staff to appreciate the dynamics of that.

KD: How did you end up working for Barbara Thomas then, speaking of the Commission?

BB: Well, the Commission has a longstanding tradition—I don't know whether they've continued it—of bringing up junior people to work for one of the Commissioners as what were called legal assistants at that time. It modeled somewhat off of the notion of a judicial clerk. Irv Pollack had a very nice tradition of always bringing in someone from one of the regional offices as a way to provide greater exposure to the home office for the regions. I had applied for a job as her legal assistant and was selected. I had always wanted to do it because one of the things that's nice about it is it gives you a panoramic view of the Commission at a relatively young age so that you can have a better understanding of how that plays out.

KD: Were you all of a sudden working on the whole constellation of issues?

BB: Individual Commissioners organize their offices as they see fit, but at least at that time the answer is yes. As with any good bureaucracy, there has been creep, as I understand it. This system started out with one legal assistant, and then there was a second because one of the Commissioners—I can't even remember who—said they really needed a second. Once that Commissioner needed a second, everybody needed a second, and I think they may be up to three or four at this point. Once you start turning it from one person, then you get segregation of function as you build out a staff, and somebody does enforcement, and somebody does trading and markets. I think it's a function of that. At various times I was there by myself, so that was good, but I was generally working with somebody else. To the extent that I was, we would divide up the calendar as it reflected our relative backgrounds. You'd get a calendar for the forthcoming items. We could go over that calendar and we could look at one, what did somebody know, what was somebody interested in, what looked like it was boring, and how do you divide those up.

KD: She was notably interested in internationalization, for example. Is that something that stands out as a special project that you folks picked up?

BB: Yes, and she traveled with respect to those issues and tried to help develop a better approach to some of the international accounting issues and then some of the trading issues. She did some of the initial trips to Japan and to Europe and did some writing about foreign ADRs and whether or not we could provide a more hospitable trading environment for them. All of that was notable in terms of her attention in time.

KD: Did that get you into these subjects as well?

BB: Oh yes. I took the trip to Japan with her. One of my other colleagues helped her on a *Law Review* article regarding the foreign ADRs. So yes, we were reactively involved in—

KD: What's an ADR?

BB: I'm sorry. American depository receipt, a receipt for securities held by a bank as custodian so that what the U.S. investor owns is the receipt for the security. It's a technique to try and facilitate U.S. investment in foreign securities.

KD: Did you do any poking around on the issue of shelf registration?

BB: We were active on shelf registration. I was a supporter of the research that we did. Commissioner Thomas raised significant concerns about whether shelf registration was the right way to go and whether or not it would raise undue difficulties for underwriters trying to fulfill their diligence requirements. I think that there her concerns have been, if anything, vindicated by the developments thereafter, yet at the same time the need for shelf registration and efficient ways to get to markets is overwhelming. Ultimately what you were trying to deal with was the tension between a diligence process that presumed a certain pace and timeout opportunities to examine, versus a go-to-market process that

was accelerating so quickly you had to reevaluate whether you could maintain the same set of standards and how they would apply.

KD: Were you trying to figure out what's the right pace?

BB: Yes. Without trying to be too wordsmithy, I think it's fair to say what we were trying to figure out is what was the right diligence that you could reasonably expect within a pace that was going to be set by the market, because ultimately the Commission was not going to be able to retard the interest—and I'm not even suggesting that the Commission would want to retard the interest—in getting to market more quickly. What it had to do was try and think about what can you reasonably expect people to do in an environment where you have to race to market more quickly.

KD: Any other notable issues or incidents from that period?

BB: I arrived in Tokyo without business cards, and our host was so appalled that they were kind enough to make me presentable by the next morning, because of the social faux pas of not having business cards in Tokyo was so astoundingly ugly American, it was not even conceivable. Fortunately, I survived that peril.

KD: Had you just forgotten? Was that the problem?

BB: I had in fact forgotten.

KD: One of those lessons that it's hard to learn. I take it you rotate in and you rotate out. You're not going to stay with—

BB: No, no. Sometimes you'll see that. It depends on people with a personal relationship, but these tended to be one-to-two-year appointments. I can't speak for where they are as a sociological matter now. It was modeled off of a clerkship and you were supposed to rotate in. When I left her, I became an assistant director back in Market Regulation, which worked out well because it allowed me then to try and take some of the knowledge that I had and apply it in a different perspective.

KD: Was this when you were specializing in OTC and municipal?

BB: Yes. OTC, municipal, national market system.

KD: That sounds like a pretty broad bunch of stuff. Did you have a colleague who was doing the exchanges? How did that work?

BB: We had it divided between the exchange markets and then the over-the-counter markets, and I had the over-the-counter markets in the national market system that would pick up municipals because they were primarily traded in the over-the-counter market. It is true. The Commission, for all of its recent growth in terms of staff and budget, is still thinly staffed in terms of the ability to build out expertise with respect to a wide range of areas.

You had to wear many hats, and you had to try and know what you knew. Part of that is also one of the things that's always a challenge for the Commission, which is the ability to maintain an active dialogue with the industry. It's important to be able to talk to people in the industry without being co-opted by people within the industry, it's importable to be able to gather information efficiently about industry practices, and it's important to have staff members who are genuinely curious about how the markets work. One of the things that I think is a key requirement for people active in Trading and Markets, but I would say in the Commission generally, is some fundamental business curiosity about how markets work because without that, you can get unduly rigid or unthinking regulation, and in addition you can get inappropriate regulation from the get-go because you're just not trying to figure out at some level how markets work.

KD: Does that lead to things like things being over-lawyered and that sort of thing?

BB: Yes. I don't particularly think that lawyers versus other professions are problematic in this regard. I do think people who are too inward looking and not curious enough about facts are a problem. If you're an economist and you have a real interest in facts and what's going on on the ground, you can do a great job. If you're an economist and you're just worried about theory and the whiteboard, you're going to get into trouble. If you're a lawyer and you want to know the facts, you can do an interesting job. But if you just want to read the no-action letters and how does this fit with the prior no-action letter, don't tell me about the facts, you will mess up.

KD: Did you and your contemporaries try to foster that kind of approach—let's look at these markets as these entities and try to figure out how they tick? Was there a way to foster that?

BB: Yes. You try and create a sense that the way you were successful as a staff member was being knowledgeable about the markets because then you could bring experience and facts to bear on particular legal issues.

KD: The issues at this point—we're talking about the early eighties here: you were looking at NASDAQ. Technology must've been a big one as far as what was developing.

BB: The big issues there actually were—don't hold me to the timeline—but in my recollection, we were still going through the transition to mature transparent markets in the over-the-counter market. The special study had called for the development of some computerization in those markets. That led eventually to the introduction in '71 of NASDAQ, if I recall the date correctly. NASDAQ was introduced with something called the representative bid and ask, which was an artificially wide quote because the way it was computed algorithmically, you would never get the true inside quote. So if the market were a nickel to a dime, you would see a market of three cents to fourteen cents or something like that. It took Commission rulemaking to eliminate the so-called RBA and display the inside best bid and offer. At the time in the eighties that you were talking about, the big issue that was outstanding was last sale reports because you'd gone from no technology to NASDAQ with the RBA to getting rid of the RBA, to the quote is a

nickel, do a dime, where did it trade. Did it trade at a nickel? Did it trade at a dime? Did it trade at seven cents? There was a huge fight about whether or not we should introduce so-called real-time last sale reporting, and the Commission ultimately adopted that initially for forty securities, and then over a period of time rolled that out into additional securities.

KD: All the while working with the folks at NASDAQ on how to do this.

BB: Correct.

KD: What was the argument against doing it?

BB: It's the same argument that tends to apply over and over again, whether or not its off-board trading restrictions or fixed commission rates, which is there is some sort of implicit cross-subsidy embedded in the opacity or the structural limitation. If you take away that cross-subsidy, you will reduce the aggregate liquidity available for trading the securities. One of your arguments in fixed commission rates is that it helps keep broker-dealers alive so that they can make enough money so they can go out and sell and that contributes to raising capital. One of the arguments for off-board trading restrictions is it allows concentrated trading so the specialists can make money trading in active security and help support an illiquid security. One of the arguments for the RBA or the last sale reporting is it helps create profitability so that they can support with liquidity during periods of down markets additional buying power at that time. There are obviously at least two, and I'm sure more, areas of suspicion there which is one, where are these profits going to begin with? Two, even if this cross-subsidy could exist, does it exist? Does somebody really help support something else because of this? So those are always important issues. Plus, to go back to the off-board trading restriction, there's always a parade of horribles whenever you're discussing any revisions to the way it is. In that respect, it's not unlike airline deregulation and other deregulatory initiatives where whatever the status quo is, it is good because it's the status quo. Even if you then make the regulatory change and there's a new status quo, that now is good and you can't change that status quo. It's not unusual.

KD: But you had the national market system mandate, you had this congressional mandate, and transparency is part of that.

BB: Yes. Very much so.

KD: So it must have been a sense of we've got to make some progress and it's a question of how far.

BB: Right, and staggering it in a manner that would not be unduly disruptive. I was—and still am—certainly of the view throughout that to the extent that I can take baby steps to get moving in the right direction, that if I'm right, then that will create its own momentum and will carry forward, and that that's better than arguing for radical steps that may not occur at all.

KD: How closely were you working with NASDAQ people at this point? Were you meeting with them every week?

BB: Not so much because we were still at the level of trying to make the policy decision. There's still something of a division—or separation I would say—between policy and operations. We had to satisfy ourselves that you could handle the last sale reporting and that the broker-dealers could do the last sale reporting, but we certainly weren't going to write the code or put it into place. For us, the big issue was, were we going to require it?

KD: How about in the area of municipal securities?

BB: There, similar kinds of information availability, increasingly the availability of offering statements, became a bit of an issue, and we ultimately developed a repository for offering statements to enhance that process. As you know, the regulation of municipal securities was constrained by various protective devices to make sure that the SEC would not become the regulator of municipal issuers qua issuers. Notwithstanding that fact, the authority of trying to deal with secondary markets and build out issues to address the adequacy of information with respect to offering statements. Pricing was a particular issue. We wanted to make sure that securities were sold with reasonable markups and dealt with with clarity in that regard. Then ultimately trying to deal with some of the underwriting practices in that market, the so-called pay-to-play—but that was really at another time.

KD: You've got a whole different self-regulating organization there.

BB: Right. The Municipal Securities Rulemaking Board.

KD: How were they different from the other issue you were working with?

BB: They are—and I think still are if I recall correctly—a reasonably unusual entity. They, by statute, reflect a mix of issuers and market participants. Their activities are limited to rulemaking. They have no enforcement, oversight, or examination powers. They were designed to try and reassure the industry that you wouldn't have people woodenly applying equity or corporate debt standards to the municipal market. To that extent, I think they've continued to function effectively. Nevertheless, they demonstrate the difficulty of trying to do rulemaking independent of enforcement and oversight, and you really do have to do a lot of coordination in trying to make that work.

KD: Coordination with whom? The MSRB?

BB: With the MSRB, the SEC Enforcement staff, FINRA, because there's a division of who writes the rules versus who enforces and provides compliance oversight. You've got to try and coordinate between and among them.

KD: Somewhere in here, it looks like you got involved in options.

BB: Yes. I transferred from the OTC NMS field to the exchange and options office, the office of exchange oversight and I think the office of self-regulatory oversight.

KD: I have '86, associate director for self-regulatory oversight.

BB: But that's when I'm at the office of self-regulatory oversight. Before that, I'm an assistant director for exchanges and options and was actively involved then, and then that continued when I became an associate director for what was called ASRA at the time, and was active in the various issues between the SEC and CFTC and oversight of derivative markets generally.

KD: Okay. That's a little later on?

BB: Right.

KD: This is the early to mid-eighties, and the options markets are still relatively new at this point.

BB: Yes, I think that's fair. That's right.

KD: Was the SEC still developing a sense of expertise on how to deal with these things?

BB: Well, we had already had the benefit of the special study of the options markets, and as a result of that, the important personnel developments from those special studies were one, you got concentrated staff thinking about it, two, once that staff was done thinking about it, they got propagated in and throughout the Commission. My boss was Rick Ketchum and he had worked on the option special study—the advantage of the study is you both get smarter about what you're doing and then two, you can propagate that expertise around the building, as it were. I think we had a developing sense of those markets. I think it's fair to say that those markets were also—because of their relative newness—areas where people were learning every day about how those markets worked including market participants.

It may be urban legend, but supposedly there were X number of folks as the options markets began who made a lot of money because they just understood the pricing formulae better than the guy standing next to them. And in most mature markets, at this point a plain vanilla swap, you're not going to make money just by knowing the formula better. As I say, the urban legend was that there were X number of people—and this is pre-handhelds, pre-cell phones—where either just doing the math better or understanding the math better and having a better intuitive grip of the underlying financial dynamics of the instrument itself, allowed you to bid more intelligently and make a lot of money. To that extent, you had not only the markets developing their knowledge of it, you did have the regulators coming behind to try and get a better understanding.

KD: At this point, the CBOE is fairly steadily introducing new kinds of options. I think their S&P 100 was probably out at that point, an index, that was their big product for a while.

BB: Correct.

KD: Tell me about working with the CBOE on some of these issues. Did you go in and walk the floor and ask people questions and try to figure it out? How did that work?

BB: Generally it's a somewhat formal process, which is to say they put together a proposal, they submit it for the staff's review, it's reviewed, you call them up, you talk about it, maybe they get some traders on the phone to talk to you about your issues, maybe they don't if the staff can handle it. You would go out and look at it if you thought you needed to, but you didn't necessarily do that on each and every proposal. So I would say that what was more common was that the assessment was done on the papers and with telephonic communication about what needed to be done or needed to enhance our understanding, and that it would be through marketplace examinations or other efforts to understand the markets more generally that you would gather that kind of onsite information as opposed to going onsite with respect to a particular proposal, although that was done on occasion.

KD: Any particular ones that you remember as standing out?

BB: Trying to figure out closing procedures or trying to understand how the book works—the order book official relative to the crowd, what are the interactions between the order book official and the crowd. Having a mechanical sense of just how that could work physically was important.

KD: The options people at this point are doing something very similar to what the futures people are doing, and this gets to hedging and all of that. How much exposure did you have to what was happening in futures and the CFTC at this point? Did you have to look at that to understand the whole landscape?

BB: Yes, in the following sense. Much of the thinking and the intellectual development came out of the futures trading pits. Remember, the CBOE was a creature of the CBOT, and I gather—although I haven't followed it closely—that only within the last year has the CBOE finally resolved the remaining property interest that the CBOT, now merged with the CME, had in the CBOE. You both had an active interest, but I think you also had individuals who had a futures background. What you needed to develop was some very rudimentary understanding of the math behind the trading of derivatives, the way that altered some of the traditional notions that you would have from an equity or debt background, and then how that played out on the individual floor. You needed to know the futures side to understand that. However, what really dragged you into the futures market was the way in which the futures market served as a hedge or a price discovery vehicle, both for the cash equity market as well as for the options markets themselves. To the extent futures became their own price discovery mechanism, that became even more important.

KD: Program trading is what's following on all this. Were you starting to worry about that at this point? This is getting into '84-'85-'86.

BB: This tests my memory in a way that I haven't verified. I can't remember whether our first significant index arbitrage inquiry was in the spring of '84 or the spring of '86. Somewhere between '84 and '86, we saw our first volume price spike at the close which seemed to derive from options-related activity, and that produced our earliest—I think it's '84—memorandum trying to figure out whether there was anything inappropriate in that trading activity. I think that sounds like spring of '84 more to me than anything else. There had been some trading activity, some pretty much straightforward index arbitrage activity that would look very benign by contemporary standards. At the time, the New York floor certainly wasn't prepared to get that level of volume, people didn't understand the connections between the instruments, and it had created both some volume and price spiking if I recall correctly, and people wanted to figure out whether there was anything inappropriate about that trading activity.

KD: What did you do?

BB: We went and did an inquiry to try and figure out who traded what when, how they did it, why they did it. If I recall correctly, we did it all on an informal basis, and we produced some internal memorandum describing what we thought we saw and how it worked. If I recall correctly, we ultimately were satisfied that it was just a new trading technique and not necessarily an inappropriate trading technique. But it's the first time that—you also get the highlight then about the issue that would then haunt the markets for decades later and still does, which is differential leverage capabilities in differing markets and the consequences of that across markets.

KD: Do you remember sort of realizing that this could be dangerous, so to speak?

BB: We knew that it could have market impact. We knew that it could have a significant market impact. Whether or not it would be dangerous or absorbed is a slightly different issue, so I'm not again trying to be cliquey about the words, but you could rapidly see that with differential leverage across differing markets, you could get some real tail-wagging-the-dog situations just by virtue of the leverage ratios—the relative leverage ratios.

KD: Was there some attempt to look for solutions or mitigating mechanisms?

BB: Yes, I think it's fair to say that we began thinking about what could you do about the leverage, what could you do in terms of trading mechanisms, is there a way that you could try and dampen down the volatility—if you wanted to dampen down the volatility because volatility qua volatility is not a value in and of itself. Let's put it this way. I would not assign a value necessarily to volatility as either good or bad. In that sense, volatility is just a description of the rate of change. What you're trying to assess is that rate of change induced for reasons that are consistent with the maintenance of fair and

orderly markets. That standard is generally one that is very difficult for a variety of folks, especially market fundamentalists to accept because it's too vague for them. But it's never too vague for public investors when things look like they're going haywire and there's no rhyme or reason to it.

KD: One of the issues is that with the options, the volatility is one of the—maybe good is the wrong word—but one of the attractions there. Rick Ketchum said it's like turning a PT boat, that's the options, whereas equities are the aircraft carrier and they turn a lot slower.

BB: That tends to be true, although even equities can move much faster today than they used to be able to move. I don't know the relative speed of equities today to options, although it certainly was true in the mid-eighties that equities could not move as quickly as options or other derivatives, and now we have derivatives of derivatives so where price discovery starts is problematic at best.

KD: Everybody was talking about the triple-witching Fridays then, and I know that you did a few things, took a few measures. Tell me a little bit about that.

BB: There was a time when individual options, index options, and index futures expired at the same time on the same Friday, which was referred to as triple witching, in part because there had been, if I recall correctly, an attractive story based off of Macbeth with the three witches over the boiling caldron after a particular day when the market had moved dramatically at or around the triple-witching session. We tried to see whether there were ways, in particular through disclosure, to ameliorate some of the volatility because one of the things that seemed to be happening was you'd have this crush of volume at or around the close, and it was difficult, to use the phraseology, to find the other side. So if you had huge "sell" imbalances, where was the other side? If it was all occurring between 3:58 and 4:00, that's not a lot of time to find out whether someone would be willing to buy XYZ at twenty instead of at eighteen. That created a situation where, since you didn't really know if you were only going to rely upon the specialist to provide that liquidity, the specialist was going to do what anybody would do in that situation or price pressure, which was fine, I'll buy it for you at eighteen, and with that kind of cushion, be relatively comfortable. Because remember, almost by definition, triple-witching Friday meant that you were doing it on the Friday at 4:00 before a two-day weekend which meant that you even had more time for news to break before you could reopen and sell your position on Monday.

Some of the issues were how could you enhance the opportunity through time or staggering for people to participate, and second, we ultimately succeeded in moving various of the contracts from the close to the opening so that they would expire on the opening. The advantage of that is if you have to make a bid for 100,000 shares at 9:30, you have six hours as it were to work off that position during the course of the day without going into the weekend holding this long position. And the theory was that that would give people greater confidence of our willingness to make a bid.

KD: Had you been able to put those in place before October of '87?

BB: I don't recall. I don't think we were able to get the move to the opening until after October of '87 because I think October 16th was still a closing Friday schedule, and that it was after October that we were able to move to the opening. I thought we got some disclosure of the imbalance before October, but I don't think we got the move to the opening until after that.

KD: How did that disclosure work exactly?

BB: The notion was that if you had an imbalance of say more than 50,000 shares, you would put that out at say 3:45, and then at 3:55 or 3:58, if you still had an imbalance, you might freeze the ability of people to add to the imbalance and you would only allow contra-side interest to come in. In all of that, what you were doing was effectively trying to simulate what you might think of as a public auction to re-price the securities, giving people, including institutional investors, an opportunity to participate.

KD: Were you looking at other SROs at this point? You're involved in options pretty heavily, AMEX and the New York Stock Exchange was doing options at that point. Were you looking at equities markets as well?

BB: Yes. We were looking at the equity markets as a whole and trying to see what we could do. We still had the national market system program. We had been somewhat caught up in trying to address the exigent circumstances of the volatility more than anything else.

KD: So the options markets commanded your attention at that point.

BB: Options and futures together. What commanded our attention was the volatility of the trading in the markets and the ability to absorb that volatility in an orderly manner.

KD: Tell me a little bit about the market break; what you were doing at that point and what your job became for those few days when you were wondering where the other side was.

BB: I was in Chicago at a commodities conference on Friday the 16th, and that was reasonably hectic. I flew back to Washington and went into the office that night, and we were trying to figure out who sold what when and what we were looking at for Monday. We got some comfort over the weekend, although as you know there were various extraneous events over the weekend that made the markets much more fragile on Monday morning. I don't recall that we had that weekend the knowledge that we had in retrospect about how big the overhang was on Monday morning. Apparently there was a way to get a better sense—I'm not sure there was a way, but there was a sense of the size of the overhang on Monday morning. Monday through the rest of the week was really firefighting. It was trying to chase one rumor or one piece of market data down after the other to try and make sure that everybody was in good shape, and to the extent that they weren't, how we could deal with that.

KD: What were the tools at hand to deal with that?

BB: The tools were really very simple. It was calling people and talking to them and then looking at various market data that we had some access to but not a lot. The Commission has better access to more information now, but at that point we were using some rudimentary market mechanisms. I think we were still using Quotron terminals, if I recall correctly, and working the phones to gather information from the self-regulators.

KD: Would you provide information to people that they didn't have that would help to rein in their trading activity? Is that the idea?

BB: No, we never got to that level of detail. What we were much more interested in was the New York Stock Exchange going to remain open, was the Options Clearing Corporation going to be able to process the volume, were the broker-dealers still in capital compliance, were the specialists in capital compliance. We were trying to make sure that none of the players or none of the institutional intermediaries were in trouble and that they were going to be all right. Then we were doing on the edges various things to deal with things like corporate repurchases and compliance with various of the trading practice rules.

KD: Were you working with the CFTC at this point in time?

BB: Yes, we would compare notes with the CFTC although I think it's fair to say that we were sufficiently busy dealing with our side of the street that we weren't as focused on the CFTC. There were, as the reports have indicated, since—and as the CME has always I think suggested were overplayed—concerns about the CME the night of the 19th or the day of the 20th, and that issue obviously involved the CFTC also. That I think is an area that is still in some historical dispute about the size and scope of that concern.

KD: The Merc's S&P 500 index was really the thing that everybody was using—

BB: Correct.

KD: —to counter what they were doing on the stock exchange. So I assume that would be a big part of the equation.

BB: That's a big part, but the concern there was whether or not the clearing side was going to be able to make its payments and whether or not there had been some delayed payments and what people were worried about.

KD: At this point, what was your office like? How many people did you have reporting to you and what was your managerial task?

BB: I don't recall the number of people I had reporting to me. Let's just call it sixty for lack of a better description. What we were primarily interested in was talking to the various marketplaces about their systems and their capacity and their ability to process. We were equally concerned about talking to the broker-dealers about their financial liability and

their ability to process. At the same time, there was a background concern about whether or not the banks—the commercial banks because this is still at a time when there was substantial separation between the commercial banks and the securities firms—are going to be willing to lend money with sufficient liquidity to the broker-dealers.

KD: I just wanted to get a sense of how—you had say sixty, say fifty people working for you—how that task was divided up, both during this point and afterwards, because clearly you've got a lot of new stuff hitting the agenda after the market break.

BB: The advantage of bureaucracy is that everything is precooked to some extent. We have clearing staff, they know which clearing firms they're responsible for; we have options exchanges, people know who they're responsible for, over the counter. You can get together a relatively small group of people and create a decision tree where you farm out a set of phone calls to try and make sure, and then you try and come back together relatively quickly and compare what everyone's saying. If somebody says I hear XYZ is in trouble and you just spoke to XYZ and they said they're fine, you try and triangulate that to figure out what's the real deal.

KD: Your sense was that the SEC—at least that part of it—was working pretty well at this point.

BB: It was working as well as it could with the tools that it had. Whether it should've had better tools is a separate question, if I can put it that way.

KD: Which gets to my next question: I would think you had a lot to think about and a lot of things to work on after the market break.

BB: Right.

KD: What were some of the priorities and how did those play out?

BB: As a practical matter, we spent four months until February producing the market break report, which was an exhausting and intellectually fascinating exercise, and we learned a lot about what went wrong and why, and published that. In parallel, we were working with the Brady Commission on its report, so we both had to do our own report, and we had to provide information and support for the President's Task Force, so that was a relatively all-consuming job through February of the following year.

KD: How did the Commission and the Brady Committee divide up? What was their focus as opposed to yours?

BB: I think we did substantially the same and overlapped substantially. Arguably, our focus was somewhat more focused on SEC-regulated entities, and they could play a broader role with institutional investors and the CFTC. But in terms of the market dynamics and reporting what happened, we were substantially similar.

KD: That was the first big thing that followed. How about after that when you start to implement the things that turned up as recommendations in these reports?

BB: We did a lot trying to deal with the opening, trying to move pricing to a way that would be less disruptive. We did some work on capital and what needed to be done there. We ended up with a series of legislative proposals that were relatively stalled until the Drexel failure and then began to move after the Drexel failure. We had the whole debate about whether the SEC and CFTC should be merged, which proved to be an interesting debate but didn't move very far.

KD: Something David Ruder had picked up, right?

BB: Oh, David's been on it since forever, Chairman Levitt has been on it, most folks who have thought about it get involved in it. But for all the obvious reasons, it doesn't move. Probably the thing that got the traction that is not fully appreciated just as a matter of historical record, is it was as a result of the market break study that NASDAQ developed its so-called Small Order Execution System which led to the ability to get automatic executions which led to the development of so-called SOES bandits, which led to the development of the criticisms of those markets and the rest. I think that much of that got started and had real economic significance by virtue of the development of an automated small order execution system, and I think that was a direct result of our report highlighting how over-the-counter market makers just didn't answer the phone and there needed to be some mechanism to hold them accountable.

KD: Right. And so at some point, the NASDAQ must've come to you and said here's our plan.

BB: Exactly. They came with a plan, implementing rules, and they put that in. Once they did that, it really was the small acorn that led to many developments in that market.

KD: Did you guys say terrific, this looks great, go with it? Or were there questions, concerns?

BB: We had the normal oversight, but I think we were basically pleased that they had developed something because the report had documented just the way in which people couldn't get trades done.

KD: You talked about the SOES bandits. Did NASDAQ come and say, "here is the problem with this. We would like to do X, Y, and Z to fix it," and was that something that fell to you to pay attention to?

BB: At one point it did. After they had instituted the Small Order Execution System and after they had developed difficulties with that system, they proposed something—I believe they called it professional trading account—which was a rule to define who could have access to the SOES system. The Commission ultimately, based on the staff recommendation, approved that rule change. It was overturned on procedural grounds—nevertheless, it was never really pursued thereafter, if I recall correctly—by the DC and

circuit court of appeals, in part arguing that the rule didn't really provide sufficient specificity about who was a professional trader and who wasn't. So yes, we had encouraged them to build SOES, they built SOES, they came back and said here, it's now being used by people who I think the economists would call, have an adverse selection issue because they are actually trading against us with favorable information rather than just the random flow of buy and sell orders. It was approved I think with a split vote by the Commission—I don't recall specifically—and then as I say sent back to the Commission on procedural grounds and not pursued thereafter.

KD: At some point in here, you became director.

BB: Right. I became director right before Arthur Levitt became Chairman. I think that's probably the summer of '94. I became acting director in either the winter of '93 or the winter of '94, and then I think I became director in August of '94 or something like that.

KD: What was on your plate when you became director?

BB: A variety of things, but the two things that were probably most notable were T+3 processing, and it's just one of those footnotes of history from my perspective. It was a good deed, it was the right thing to do, and people were very much concerned that it would not work, and it worked and it worked successfully. Now it's just an accepted feature of our markets. At the time it was great tumult, people were afraid about would it work, wouldn't it work, could we do it, couldn't we do it, have we tested it, have we not tested it. The closest thing I can think of as an analogy for people would be Y2K and the way at the time it seemed like it was really important, and then it came and it went, and now it's "why did we worry so much about it?" We really worried about moving the entire nation's securities markets from T+5 processing to T+3, and now fifteen years later, we would wonder why we ever thought about it in the first place. That's just one of those quiet successes that I'd like to think the SEC does a lot more of that you don't see that the SEC does.

KD: Was this mostly a technology issue, just making sure that the things were in place?

BB: Technology and processing. You had not only to make sure that you had the right stuff, but you had to have the right processes throughout a whole range of activities and to make sure that they matched up, that the trade settlement, money settlement all worked, that it didn't interfere with what was being done with the revenues or other instruments. In a sense, it was just putting together the building blocks. The other large project was bringing home to completion *Market 2000* that had been started under my predecessor, Bill Heyman. We were in the midst of trying to think about a variety of items, and we finally finished that. I think that the stuff we talked about there that stands out as probably the most dramatic was the shift to decimal pricing.

KD: That was recommended in the *Market 2000*?

BB: Yes, as well as the gradual repeal of off-board trading restrictions among other things. But I think the standout item is really the decimal pricing which then really does act as a source of price compression within the markets.

KD: Did it recommend doing the sixteenths—

BB: As an interim? Yes. As an interim, if you wanted to do sixteenths, that was fine. Now the Commission ended up struggling about pennies. I still think that there's an argument that at some level of standardization, you should have something that is a minimum spread, in the same sense that you used to have a minimum spread of a nickel. The difficulty is that it's very hard for government to set that on a sustained basis. But on the other hand, trying to have a variety of digits is just more complicated when we're trading billions of shares a day. In other words, you don't want one set of transactions going off with five digits, another with four digits, another with two digits. At some level, for the sheer processing efficiency of the markets, you'd like to have some understanding of what you're going to do. But I think that, too, had a significant impact. The NASDAQ study and difficulties was emerging, and I was involved in putting together the proposals to try and address that, notably, the development of, for lack of a better description, trade-through protection and the like in terms of pricing issues. So those proposals really were coming into the forefront at that same time. So I would say T+3, decimal pricing, the beginnings of the NASDAQ reevaluation—

KD: This was after the odd-eighths thing.

BB: Right. Odd-eighths has appeared, so now we're beginning the process of trying to figure out what to do with NASDAQ itself, and part of that has to do with some structural issues in terms of how you price the securities.

KD: One of the arguments was that obviously if you're going to change the pricing, that wipes out the odd-eighths anyway.

BB: Exactly.

KD: How did you dig into this, because clearly there were a lot of implications here with the whole market maker scandal, and it wasn't just a market structure issue, but there was the malfeasance side also. Tell me a little bit about going into what clearly looked like it was going to be a big process.

BB: That's where the Commission needs to be able to function as a commission and not as a confederation of individual units. What I mean by that is you need to be able to bring to bear your market structure expertise about whether or not you should redesign some of the mechanisms—decimals, sixteenths, eighths—that can deal with it at a structural level. You need your examination team looking out there to talk to people about what's being done. Ultimately you need your enforcement folks actively engaged in going out via both informal and formal processes to talk to people about who's doing what, all of which should be complemented by the policy and economics and statistical teams that the

Commission has. It is still I think a challenge short of what I'll call a special study where you create your own bureaucracy that now re-forms as an individual team to get all of those units to work together simultaneously.

KD: How well did it work at that point?

BB: I think it worked okay. I think that certainly enforcement ended up taking the lead, the market maker activity itself. I think Market Reg took the lead on rulemaking in terms of a public limit order and the protection of those orders and some of the structural changes to the market itself. I think NASDAQ helped to take the lead by bringing in Senator Rudman in their own review of their own marketplace. But there are still enough opportunities for coordination between and among those units. In retrospect, you can always do a better job of that. At least that's my view.

KD: At this point you would've been sitting on the other side of the table from Rick Ketchum—

BB: Yes. That's right.

KD: —who you previously worked for.

BB: Right. Rick was on the other side at that point, although I think that the other side is a little bit of a focus on geography. He was in a self-regulatory position and he had a duty to enforce those rules also. So it's not as if he was in a position to do anything other than try and investigate and figure out what was going on also.

KD: There's the obvious question which is how did everybody miss this? Then you would say what did you find out? Working with the NASDAQ, how did you figure out not to miss things like that again?

BB: My own view about how to not miss things again is to remember that just because somebody's a critic and may have an economic interest in being a critic, to try and still take seriously other criticism because I think part of the process is to make sure that you're open to criticisms of the status quo even by those people who are self-interested and take seriously at some level their criticisms. Now where that runs into a headache is how do you avoid then spending all of your time on every complaint that you receive. I think the SEC has that challenge today—how do you sort the wheat from the chaff in terms of trying to figure out where to allocate your time to the extent that you're doing that in part based on whether or not critics have their own self-interest. I think that ultimately proves to be a false criterion and if anything you should be trying to consider: Okay, so they've got an economic interest. That may be what motivates them to stay up nights and look, but are what they saying make sense.

KD: So there were some squeaky wheels that should've been listened to.

BB: There was at least one article that I can think of. I think it was a *Forbes* article entitled "Fun and Games on NASDAQ" that I think at least was an early indicator that there were issues to be followed up on. Just don't hold me to the sequence, but that's the one that sticks in my mind. And then second would be trying to get out front in terms of taking advantage of the academic research and other developments. There, one of the interesting issues is often the academic researchers would be the first to say the government shouldn't do anything except if it's their study. You really need a robust way to tap into that literature and figure out what is showing you something of interest because there, too, you've got to be able to bring judgment to bear about what to follow up on and what not to follow up on because much of what's written—the way I can remember it is, for example, for years there were studies about whether NASDAQ created better prices or New York, and each marketplace had a whole set of studies proving that their marketplace was better. Well it's tough to get too excited about competing studies from competing markets proving that one market is better than the other. But at the same time, if there's a study buried in there, irrespective of who wrote it or why, that suggests not just that one is better than the other but that somebody's doing something wrong, you've got to find some way to sort of sort through that in a sensible manner.

KD: So were those things that you tried to write into your processes after that?

BB: I tried to stay with the literature, but I leave just at the tail end of this stuff, so I wished them the best in terms of their ability to do that on a going-forward basis. If you ask me what would be some of my lessons learned, it's listen to the critics—even if they're self-interested critics—and stay on top of the academic literature, although both of those things, if you have a day job, are often hard to do and you've got to bring judgment to bear in evaluating them.

KD: Had you put your people to work on the order handling rules before you left?

BB: Yes. If I recall correctly, I think they were proposed before I left or we had put them together in draft before I left.

KD: One of the things that the NASDAQ folks point out is that they had submitted their own rules, rule changes, earlier that would have accomplished some of these things that the SEC later came along and told them they had to do.

BB: And the sequencing of that is just lovely because that's when I think I was out of that process.

KD: When they came back with—

BB: When they came back with that argument. What is true is that they certainly say that. I can't speak for NASDAQ, but I do recall that there was a sense that they had been trying for a long time to get up something that would look like their own limit-order handling

process and that they just couldn't get the Commission to agree one way or the other, especially given all the tumult around evaluating what was going on with market makers.

KD: And this is fairly early in Arthur Levitt's time. One of the senses I got was that the *Market 2000* study—that this was a Ruder thing and then when Levitt came in, he wanted to do something else. Is that a fair characterization?

BB: I don't think that's a fair characterization. I think it's fair to say that my predecessor started it in advance of Arthur—it got its sea legs in advance of Arthur having an opportunity to really try and help shape it. It's not so much that he wanted to do something else as that it wasn't his progeny, if I can put it that way. Maybe I'm making a small distinction there, but it's the distinction between it being embraced by him as his project versus a project that the institution was pursuing and that he supported bringing to fruition, he helped us get it put into shape at the end, his office helped review all of the materials, and we went through the Commission in terms of presenting that. We got it up, we got it out, we got the endorsement about decimals. I think it went where it needed to go at the time, but it was certainly not a project that grew out of and was the lead item of his chairmanship. Maybe I'm making a small distinction there, but—.

KD: I understand the distinction. Something he did make a lead item was his pay-to-play.

BB: Exactly. Right.

KD: And you were there for that?

BB: I was sort of at the beginning of that process because that, too, took on a life of its own and went on forward thereafter.

KD: Tell me a little bit about as much as you were there for because you had been involved in municipal securities rulemaking.

BB: I would say that there was ongoing concern that the way in which business was generated involved too many affiliate relationships with too much, we'll just call it, soft money floating around in terms of how those relationships were created. In contrast to what I said earlier about trying to stay on top of the academic literature, listen to the self-interested critics, here was an example of where the Commission did do a pretty good job trying to stake out some leadership in identifying the potential for abuse in this area. And there you've always got the issue of whether or not you look at individual items of abuse or you try and do something structural. I think Chairman Levitt, working through the MSRB, did try and encourage a structural response that would help address that issue entirely.

KD: Did he set up a task force outside of market reg—

BB: He created a Municipal Securities Task Force, he brought in a new person to head that task force, and I think he put a lot of attention on municipal securities. You should talk to

Chairman Levitt, but he had the background I think from his father who, as you know, was the long-term respected comptroller in New York, of having known much and having much history in terms of state and local financing. I think he brought both a certain level of expertise and experience in the area.

KD: When you started to think about leaving the SEC, would you have been mostly consumed with the order handling rules and dealing with—

BB: Pretty much. Right.

KD: Tell me a little bit about why you decided to leave.

BB: The usual reasons. My boys were getting older, and it was time for me to provide them with some additional support.

KD: Thinking about college and—

BB: Yes.

KD: Then you went into a law firm.

BB: Yes. I joined Wilmer, Cutler & Pickering.

KD: And undoubtedly worked in the securities area.

BB: Right, and headed their broker-dealer group.

KD: How long were you there?

BB: I was there from ’96 until 2009.

KD: So just last year and then you came here.

BB: Right.

KD: You saw a lot of changes from the outside happening. Was there any perspective that you gained during your time at the SEC, other than of course learning the ropes? What would be the perspective that you got that you really carried through your career, something that’s not the obvious?

BB: I’m afraid that I don’t have anything that isn’t obvious. The things that I thought that the SEC demonstrates time and time again is that knowing the facts counts tremendously, and that having a control and understanding of the facts is ultimately what gives the Commission its credibility, more so than shoe pounding and moralism. Then, if you know the facts, being open to listening to alternative points of view, not with a sense of fear that you’ll be overruled, but with a sense that the strength of your arguments and the

ability to accommodate good arguments and then get stronger as a result of that dialogue. Then third, a tenacious commitment to a long-term view that has sufficient strength that you can do intermediate steps along the way. I would say that those are the three things that have been important at the Commission and important thereafter, because if you don't know the facts, you're ultimately going to get pushed aside. If you don't engage in the dialog, shouting louder isn't going to be good enough. If you can't figure out what compromise is workable versus which one will throw you off-track and you'll never get back, you won't achieve your long-term objectives.

KD: Is there anything that we should talk about that I haven't touched on?

BB: Only that the SEC is a terrific place to work, and people have wonderful careers and learn a lot, and people should continue to go there because it still is, from what I can gather, a good place to work and continues to deal with a wide range of important challenges.

KD: It's certainly got a lot of those right now.

BB: Right.

KD: All right. Thanks a lot.

BB: Sure. Thank you.

[End of interview]