

**Securities and Exchange Commission Historical Society**  
**Interview with Joseph Hardiman**  
**Conducted on October 29, 2009, by Kenneth Durr**

**KD:** Interview with Joseph Hardiman, October 29<sup>th</sup>, 2009, in Baltimore, Maryland, by Kenneth Durr. Thanks for taking some time to talk to me. I'm getting the sense that you're a Baltimore native?

**JH:** I'm a Maryland native, and I've spent most of my professional career and adult life in Baltimore. I was born and raised on the Eastern Shore of Maryland.

**KD:** Okay. Where did you go to school?

**JH:** I went to the University of Maryland, College Park, graduated in '59, then I went directly to the law school and graduated from the law school in 1962. Then I spent a year clerking on the Court of Appeals in Maryland with a judge by the name of Hall Hammond, who later became the Chief Judge of the Court of Appeals. His impact on my future was significant, both in terms of my career as a lawyer, and my subsequent career in the investment business.

**KD:** In what way? Did you start to get into securities law fairly early?

**JH:** Yes and no. With him I was doing a lot of legal writing, and I really learned how to write. He also was the trustee of a number of significant trusts, and while I clerked for

him, I worked with him on the investments of those trusts, which started to tickle my interest in investments. He was the one that said, "As you develop, don't just restrict your thinking to the private practice of law; think about where your career may take you and what other opportunities there may be."

**KD:** So it took you into Alex Brown?

**JH:** No. I didn't heed his advice at first. I wanted to try the law, and I did. I went to work with the firm of Miles & Stockbridge, which is a large Baltimore-based firm. There, for five years, I did corporate and securities work, primarily representing what is known in the trade as issuers, or the companies that are issuing securities. I would work long hours preparing the prospectus and other documents, and then I'd go to the closings, where I would see that the investment bankers were making the money, while the lawyers were doing the work. I practiced law for five years and it really was a rewarding practice, but I developed an itch to move into the world of securities and investments.

In 1968, the securities industry was facing some challenging times in terms of its ability to process the business that they were generating, because it was a paper business. Every time there was a securities transaction, there had to be a piece of paper that passed between the buyer and the seller, whether it was a certificate or a document, and the industry was having some serious digestion problems. In fact, during that period of time, the New York Stock Exchange used to close one day a week in order to be able to handle the paperwork of doing 2 million shares a day.

**KD:** So you came in in the middle of the back office crisis.

**JH:** I came in in the middle of the back office crunch in September of 1968. The industry was also becoming, in the late 60s, more compliance conscious. I was hired as an assistant to the President of a small firm by the name of Robert Garrett and Sons, which was the second oldest investment bank in America, founded in 1819. I was able to join a 120-person firm that engaged in a general securities business - investment banking, asset management, securities trading, brokerage and municipal bond activities. From that perspective, that of a small general securities firm doing many different things, I was able to learn a little bit about all aspects of the business. And as assistant to the President, I was able to do many different things.

I spent a good deal of my time—at least half—helping organize the back office and getting that to the point where it could handle the paper flow that was choking the industry. In doing so, I got exposure to others in the industry as well, which was very helpful later in my career. So that's how I got started, working with Robert Garrett & Sons in all aspects of the business until we sold it in September 1974 to Alex Brown. I stayed on, closed the firm down by the end of the year, and then I joined Alex Brown on January 1<sup>st</sup> of 1975.

**KD:** What position did you come into?

**JH:** For a one-year period of time, I came in to replace the administrative partner, and I was in charge of the administrative side of the business.

**KD:** Back office experience?

**JH:** That was back office, legal and compliance, human resources, you name it, administrative services. I worked with the branch offices, I did not do any investment banking work or securities trading, but I was involved in everything else.

**KD:** You had mentioned that this firm was in at the ground floor of the founding of the NASD. Did people talk about that? Was there more involvement than there may have been in other firms because of that?

**JH:** Yes. As a result of that, Alex Brown had longstanding involvement with the NASD, and a number of the partners of Alex Brown had been members of the Board of Governors of the NASD, starting with Benjamin H. Griswold, II, who I believe was the first chairman of the NASD, a historical fact that probably we should check. There had been and still were several partners at the time who were active with the NASD. So I was encouraged—not at the very outset because I was just getting to know the firm and the people—but I was encouraged to become involved with the NASD and with industry matters. And I did. So the legacy was there, if you will.

I got involved at the district level by sitting on district business conduct cases as a volunteer from the industry, which Alex Brown always supplied people to do. And then eventually, in 1984, I was elected to the Board of Governors of the NASD.

**KD:** You were talking about doing this volunteer work on the district level. Were these enforcement-type cases?

**JH:** Yes.

**KD:** Discipline?

**JH:** We'll step back a second. The Maloney Act was '38, and I think the NASD came into existence in '39. There was only one CEO for about twenty-five years. It was established to make sure that the members of the NASD abided by just and equitable principles of trade and fair dealing with customers and other members. One of the processes they established, almost from the very beginning, for assuring that these principles were followed was industry self-involvement in hearing cases against both firms and individuals who were charged with violating either the rules of the NASD, or the rules, regulations and laws of the Securities Acts that were in the purview of the SEC.

Around the country the NASD developed a series of districts. Each district had NASD staff who would investigate and bring the cases. Volunteers from that particular district would hear the case and determine what disciplinary action, if any, was appropriate.

There was an appellate process if the person or the firm decided they wanted to appeal the decision of the district business conduct committee. It was a trial by peers which could be appealed to the National Business Conduct Committee, which was a committee of the national NASD Board of Governors.

**KD:** And this took place in Washington?

**JH:** Yes. In its early history the NASD primarily engaged in investigating complaints, examining firms, looking for examples of misconduct, and making sure firms were financially viable and stable and not violating the Net Capital Rules.

**KD:** Were there broker exams as well, from the beginning?

**JH:** No, I don't think so. That's a good question, Ken. I think that came along quite a bit later. There was broker registration required, but I don't think there were broker exams, and I don't know when that exam process began.

**KD:** So you were involved first as a volunteer.

**JH:** I volunteered at the district level just hearing cases that were initiated by the NASD staff against a member or a registered representative and sitting in judgment on those. Then I became a member of the district committee itself. Each district had its own oversight committee. Each district then had a representative on the national board, and I was

chosen to represent the Mid-Atlantic District in 1984. That's how I got to the NASD Board of Governors in 1984, but I was still full time in the industry. This was a volunteer activity.

**KD:** This is the period when Gordon Macklin is in charge.

**JH:** Absolutely.

**KD:** And the NASDAQ is going up.

**JH:** Gordon was there from 1970 to 1987. As an aside, I always called him The Locust because of the seventeen-year period of time.

**KD:** Tell me a little bit about him. Did you know him very well?

**JH:** I knew him very well. He was a gregarious, smart investment professional who believed strongly in the concept of self-regulation. As you probably know, he came out of the securities firm of McDonald in Cleveland. He had been involved also as a volunteer with the NASD from the Ohio district and as a Board member. He was hired, I believe, as the third President and CEO of the NASD. There may have been a very brief period of time while they were searching for a new CEO that there was an acting CEO. That was a gentleman named Robert "Stretch" Gardiner who was then with Reynolds & Company.

That would've been about 1970. But Stretch would have only been there for a couple of months on a part-time basis. Gordon was the third president and CEO.

**KD:** You said he believed very strongly in the concept of self-regulation.

**JH:** Yes.

**KD:** What did that mean, in concrete terms, to him? He must've shared this vision with you.

**JH:** Well, he really felt that the NASD was charged by the Maloney Act with assuring that its members not only complied with the securities laws, but also dealing with investors, both large and small, institutional and individual, on a fair basis. He felt that it was very much in the industry's best interest to police itself, and that while regulation sometimes can seem onerous, that effective regulation, well carried out, would enhance the industry and its relationship with investors. What drove him more than anything else was the feeling that, "If we police ourselves well and do a good job and make sure our members treat investors fairly, then that's going to enhance the industry's reputation. It's going to help the business grow." So one of his favorite expressions was, "Good compliance is good business."

**KD:** Did he do anything to change the self-regulatory structure during his seventeen years there?

**JH:** No. I don't know that I could say that he did anything to change the regulatory structure. Well, let's review the facts. I believe the testing requirements came into place before Gordon was there. I believe that the arbitration practices were established before he was there. In terms of enforcement, in terms of arbitrating disputes, in terms of registering and testing individuals that are going to be engaged in the business, I think all those were in place before Gordon was there. I'm not 100 percent sure of that, but they clearly were in place when I got there. So I don't know that he did anything to change the basic concept of the NASD. I think he thought it was well constructed from the beginning, and that it had been well managed for a period of, 1939 to 1970, thirty-one years before he got there.

**KD:** And, obviously, the challenges grew when the automated quote system –

**JH:** Well, that's right. This is where Gordon, I think, made his real contribution. He was, as I described him earlier, a great investor. Investing was his first love. As a result of an SEC study in the 1960s about how to improve the quality of information in the fragmented over-the-counter markets in the United States, the SEC recommended that the NASD or some other organization establish a nationwide system of quotations for the over-the-counter market. Gordon and the NASD Board rose to the challenge very quickly.

**KD:** Do you remember those discussions?

**JH:** I was not a participant in those discussions at the time, so I would not have had firsthand knowledge of it. But Stretch Gardiner happens to be my next-door neighbor in Florida--that's by accident as things turned out—and he was a very active participant. Going back to the over-the-counter markets, we had just a few large national firms in New York then. A lot of the securities business, particularly with individual investors as well as the institutional investors at that stage of the game, was done by local or regional firms. If an investor wanted to buy shares in a company that was located in Seattle, they would go to a Seattle stock brokerage firm, which made a market in the local stocks.

The investor would buy it, and that's where the name over-the-counter comes from. You would go into the brokerage firm, put up your cash over-the-counter, and it would, in turn, give you a stock certificate. It was all manual, and you either had to go to their offices or call on the telephone to get a quote on a particular stock.

**KD:** So all these market-makers are localized.

**JH:** All localized. They're all over the country. And there were literally hundreds of them—maybe even thousands—at that stage in the game. Unless the stock was quoted on the New York Stock Exchange, which had a fairly small base of maybe 1,000 or so very large national companies, everything else was traded locally, so it was a fragmented market. If I were sitting in Baltimore, and I wanted to buy stock in a Seattle company—Microsoft didn't exist at the time, but Nordstrom's probably did --I'd go to my broker here in Baltimore.

He, in turn, would have to call a broker in Seattle. He would get a quote over the telephone, and that quote would then be relayed to me, and I would then make a decision as to whether I wanted to buy. But because it took such a long period of time, the quotes could change between the time of the quote and the execution. It was a very inefficient and fragmented market. The SEC study in the 60s pointed that out rightly and said the industry needed to centralize this market and to bring some degree of automation to it.

**KD:** That's a good description of pre-1970 over-the-counter.

**JH:** Yes.

**KD:** How much had that changed in that ten or so years before you got to the Board? How did it look when you were on the board?

**JH:** Before I got to the Board, the changes had begun in 1971. The NASD, at the urging of its Board and Gordon, hired Bunker-Ramo to develop a new system. Bunker-Ramo not only developed the system, they owned it. The NASD, however, very wisely negotiated an option to buy it. Bunker-Ramo developed the initial system, which was just a system of quotes. Instead of having to call the broker in Seattle, if I had a terminal in Baltimore (not I as an investor; but I as a brokerage firm, for example Robert Garret & Sons), I could bring up Nordstrom's on a screen, and I could see all the brokers in the Northwestern United States that may have been quoting Nordstrom's.

I still had to call that broker. I couldn't execute trades through the system. I had to pick up the phone and call the broker and buy or sell the securities. With one wrinkle, that's pretty much the way the market was until 1979, when they added the next feature. After there was an execution, the broker executing the trade on behalf of the customer had to report it to the NASD through NASDAQ. Thus, they introduced trade reporting.

Now you could not only see quotations of the various dealers that were making markets, but you could also see last sale information, and you could see where the executions were taking place versus what the quotations were. This became not only a market enhancer, but also a good compliance tool because it enabled the NASD to take a look at the executions and determine whether a customer was getting "best execution."

Trade reporting was helpful both from a market efficiency point of view as well as a regulatory oversight point of view. That was pretty much the way the market worked when I started getting involved with the NASD as a volunteer.

**KD:** Was the small order execution system in at that point?

**JH:** Not yet, no. That came in 1984.

**KD:** Yes. About the time you went onto the Board?

**JH:** Yes, about the time I went on the Board. That was the next wrinkle. We had a quotation system and a trade reporting system but no execution system. Everything had to be done over the telephone. So in 1984, NASDAQ developed a small order execution system. For the first time—I think in any market anywhere in the world—there was the ability to automatically execute a transaction without any active dialogue between two human beings. But it was only for a hundred shares, and participation was voluntary. If I were Alex Brown & Sons, I could choose to participate only on the quotation side and trade reporting side but I did not have to participate in the small order execution side if I didn't want to do so.

**KD:** Why would someone opt to participate or not to participate?

**JH:** The large national firms, like Merrill Lynch at the time, would participate because they had such large order flow that if they could automatically execute small orders without having to manually handle them it reduced their cost and improved their efficiency. The smaller firms, however, were reluctant to participate because they did not want the exposure of having somebody to be able to execute automatically against their quotes without their seeing that and knowing what their exposure may be, even though it might be for only one hundred shares. The larger firms, didn't care about one hundred shares if the spreads were to a quarter.

But a smaller firm with much less capital and much less risk tolerance did care. It could have an impact upon them and their capital adequacy. That's basically the reason why

some firms chose to participate. It became a matter of volume. Firms with a larger volume did it because it was more efficient and they had the capital adequacy. If they lost some money on these small transactions, so be it. The smaller firms decided, "I can't afford to lose money on these smaller transactions."

**KD:** So they're still using pink sheets at this point at the small firms?

**JH:** No, they're not using pink sheets. They used the NASDAQ quotation system for NASDAQ stocks, because they could see the changing quotes and best bid or ask, but they would still call up to have an execution. The pink sheets were there for other stocks.

**KD:** Who was using those?

**JH:** Not many people realize this, but when I went to the NASD and NASDAQ in 1987, there were almost 50,000 publicly-quoted securities. Only about 7,500 or 8,000 of those were quoted either on one of the exchanges or in NASDAQ. There were a huge number of small stocks, mostly penny stocks or mining stocks, which were still quoted through the pink sheets. If you weren't listed on NASDAQ, or if you weren't listed on one of the exchanges, you had to go to the pink sheets. I believe that continues to be the case, although one, you don't have anywhere near the number of stocks quoted there, and two, you've got a good deal more stocks quoted on the securities exchanges and NASDAQ today.

**KD:** Tell me the circumstances of your coming in to take over from Gordon Macklin.

**JH:** The NASD was in good shape. It was functioning well, carrying out its regulatory responsibilities well, and the NASDAQ market was in the early stages of growth. From '71 until it introduced the small order execution system in '84, it was still just a quotation system. But when that happened it started to become a real market, if you will.

That's the way things were when I arrived. I had served three years on the Board (I was in my third year). I had been elected as Chairman of the Board by my peers. I was the industry Chair of the Board and Gordon was the President and CEO. I got to know him very well during that one year where we overlapped because the chairman spent a good deal of time with the president. Then he announced in February of 1987 that, after seventeen years, I think, of strong leadership of the organization, he was going back to the industry. He was leaving in June to become Chairman of Hambrecht & Quist, a very good San Francisco based investment banking firm.

And so as Chairman of the Board, it was my duty to form a search committee, and I did. It was chaired by David Hunter of Parker & Hunter. Interesting character, by the way. If you ever want to talk to somebody about the history of the NASD and the exchanges, he served them all. He's still up in Pittsburgh. In May of that year, the committee came to me and asked, "Would you have any interest in succeeding Gordon?" With my legal background and my experience in the industry with Robert Garrett and Alex Brown, and

my involvement in the NASD, they felt I would be a natural choice. I think Gordon had something to do with that decision. I don't know that, but I think it's likely that he did.

They approached me, and I decided it would be a great way to spend some time in a quasi public-service role, giving back to the industry and satisfying a personal desire that I had always had from a youngster to serve in some public service capacity. And here I could do it within an industry that I knew and enjoyed. One, it caught me at a good time. Both my children were in college so they were out of the roost. Two, Alex Brown had incorporated and gone public the year before and, I preferred the partnership mode. I thought the partnership mode in which it had operated for 185 years.

**KD:** So you were ready to make a change.

**JH:** I was ready to make a change, Ken, that's right.

**KD:** Well, you got a big change because you landed in there right before the market break.

**JH:** You're right. I agreed in late May or early June of '87 that I would take on the CEO role and I committed to serve at least five but not more than ten years. I did so because I felt that you had to be with an organization for at least five years to have a meaningful impact. And if you stayed more than ten, you probably have stayed too long. It's good for the organization to have change, and it's good for the individual to have change. So with that understanding, I took it on. And I took on the role September 1<sup>st</sup>, 1987.

I never will forget Gordon's and my last chat. I said, "Well, now, tell me, what are the problems, are there any challenges? What are the issues?" And he said, "Everything's in great shape. The NASD's in terrific shape. The NASDAQ stock market's in terrific shape." At the time, NASDAQ had enjoyed quite a nice little run, and things were going along seemingly well. So I thought I'd have a little time to get to know the organization and its professionals and the skills of its people.

One of the first things I did was to spend the month of September in Washington getting to know the professional staff there and in Rockville where the NASD had its operation center and up in Trumbull where the NASDAQ operations are located. In early October, I embarked on a program of visiting every district office. On October the 16<sup>th</sup> of 1987, I was in the Denver office, and I got a call from an individual who subsequently became a great friend and senior officer of the NASD: Rick Ketchum.

Rick was then the head of the Division of Market Regulation at the SEC. I had been over to call on him, as well as all the Commissioners, but I didn't really know Rick. He asked, "Have you been following the markets closely today?" I said, "Well, I've been traveling. I know that we are having a sharply down day, but I haven't paid a lot of attention to it." And he said, "Well, we think that there are some fundamental problems that may result in a significant sell off here. We think you ought to make sure your systems are in good shape, and your people are alerted." I said, "Great, thanks for the heads-up," and scooted

back to Washington as quickly as I could, and spent the whole weekend doing exactly as he suggested.

And then, of course, on Monday, we had the fateful market sell-off — we called it a crash, and at the time everybody thought it was a crash. Now in light of what's happened since then, it was probably just a sharp market decline. But it was a very difficult day, and I really got my baptism under fire that day.

**KD:** How did the NASDAQ respond, as opposed to the exchanges where there was so much volume?

**JH:** We had huge volume too, probably more than our systems could handle. Monday was a more challenging day for the exchanges than it was for us because, quite naturally, when investors thought that there was a crash coming, they went to what they thought was the most liquid market they could find: the New York Stock Exchange. So they were banging New York Stock Exchange stocks pretty hard that day, and the specialists were getting hit particularly hard. The specialists were undercapitalized at the time and were having a difficult time acting as a buyer of last resort.

Our problem that day was, going back to the structure of the NASDAQ market, the small order execution system was voluntary. Thus the market makers, even the large ones, withdrew their participation in that system. The only way you could get through to them was on the telephone. The telephones became clogged. People couldn't get through on

the telephone to the market makers in NASDAQ securities. I was getting complaints particularly from the larger institutional investors that they were not able to get through to our market makers.

We were getting feedback that the individual investors were also having a very difficult time getting through to market makers and executing transactions, though they were not contacting me directly. And they thought the market makers were just not answering the telephone. So we immediately dispatched our staff members around the country and in the districts, out to the market makers to monitor their activities.

**KD:** They'd physically go?

**JH:** They would go physically into their trading rooms and monitor what was happening. And yes, there were some that were not answering their telephones as a way to avoid having to buy securities at rapidly-declining prices. But for the most part, the communication systems were inadequate. They were swamped. People couldn't get through because lines were overwhelmed. There were thousands of people trying to get through a small telephone-based system.

**KD:** I understood there was also a deal where they were putting the bid price above the ask price or something like that.

**JH:** What happens is, let's say I'm a market maker and you're a market maker in Microsoft, and I was offering to buy at twenty and sell it at twenty and a half. Well, that day, in all markets, exchange markets, NASDAQ over-the-counter markets—NASDAQ was only a small portion of the over-the-counter markets then, with probably 1,500 listed securities out of thousands—and you were coming in and saying you would sell at less than twenty, that constituted what was called a locked and crossed market.

The NASDAQ system was designed to show the best bid, and best asked. So your quote crossed the line, and the price at which you were selling was lower than the price at which I was buying, which normally means I should've been buying your securities. But that wasn't happening. So the screen was showing these crossed markets. Instead of the market being twenty to a half, it was showing the market as being twenty on one side, nineteen and three quarters on the other. Instead of a positive spread, it was a negative one and the system locked.

**KD:** And it was because of this communication?

**JH:** It was because different market makers were changing their quotes so quickly the systems couldn't keep up with the changes. We discovered a couple things. One, the communication networks were inadequate. Two, the systems needed to be modified to eliminate just this phenomenon we were talking about, what we called locked and crossed markets. And three, the small order execution system, which was designed to automatically handle increased volume, wasn't functioning when it was subscribed to on

a voluntary basis. The market makers all withdrew. So what should've been a means of reducing the communications and execution gap, exacerbated the problem when the market makers pulled out.

Our big day was Tuesday. I'll just give you this as an example of history. The exchange markets had struggled hard on Monday. We were getting hit hard on Tuesday. I was getting calls from market makers on Monday afternoon, but primarily on Tuesday morning, from big firms and small firms saying, "You've got to close the markets. We're getting killed. We don't have the capital to buy back in all the securities that are being offered to us." And the same thing was happening with the exchange specialists. About 11:45 or so, I got a call from John Phelan who was the CEO of the New York Stock Exchange, saying, "Listen, our specialists are running out of capital. We can't continue to operate. We're going to close the markets at 12:30 if this thing continues to go down."

We both agreed it would be a disastrous thing for the market to close because markets are there not only to provide price discovery, but also to provide liquidity. And when markets are closed, particularly during normal market hours, they can provide neither, and that's when panic ensues. We didn't talk long about it—it would be a terrible thing to do. I said, " John, if you close your market, we've got no choice but to close ours."

Fortunately, Alan Greenspan came to everybody's rescue. And as much as he's being maligned today for more recent events, he took absolutely the right action at that stage in the game. He gave banks increased access to the Fed window, and he gave brokers and

dealers access to the Fed window as well. This meant that they could be sure that they could get access to capital, and that the counter parties on the other side of a trade would be there to settle the transactions. Once he announced that, the market took a sharp turn in the other direction. And interestingly, by the end of the week, it was back to even for the week. And by the end of the year, 1987, it was above its high. It was a short-term phenomenon, but we learned a lot.

**KD:** Yeah, it sounds like it. Did you sit down and set out to remedy those three things you talked about?

**JH:** Yes, absolutely. Two things were happening. One, the U.S. Government, through the Offices of the Secretary of Treasury (Nick Brady was the Secretary at the time) convened a group to study the causes and the impact and to recommend remedies for the market crash. But at the same time, we at the NASD convened a group primarily of NASDAQ market makers to discuss the problems that we discovered. Ironically, that group was led by two people. One was Bernie Madoff, who was the leading wholesale market maker in both NASDAQ and Exchange listed securities, and very highly regarded by his peers as being the leader.

The other was Victor Wright who was in charge of NASDAQ trading at Goldman Sachs. So we had a large firm and we had a wholesale firm. We also had representatives of regional firms, but those were the two leaders. We got them all together a number of

times, in New York and Washington, and we said, "Okay, how are we going to solve these problems?"

From my view, it was an opportunity to improve the quality of the NASDAQ stock market. Yes, it demonstrated some serious flaws, but you could lament those flaws or you could do something about them. Basically, we said, "We're going to do something about it." Here again is where the "self" part of self-regulation is involved, because with our encouragement, the committee came up with the ideas for making SOES (the small order execution system) participation mandatory, and increasing the size of a small order to either 500 shares or 1,000 shares, depending upon the size and liquidity of the stock. And that was a major change for NASDAQ.

**KD:** Making SOES mandatory?

**JH:** Making it mandatory, and increasing the size of the transactions that can be executed. Because then, a lot of these problems that were demonstrated by either the inability or the unwillingness to answer telephones during the market crash could be resolved. We quickly moved in that direction. Secondly, we made some significant upgrades and changes to the NASDAQ systems, increasing the capacity and also eliminating the ability to have locked and crossed markets.

**KD:** Did you ever consider circuit breakers?

**JH:** No, we did not consider circuit breakers. I did not believe in circuit breakers. A circuit breaker as originally proposed would have, if you hit certain benchmarks, caused the markets to close for a period of time. If markets are closed, they can't provide price discovery or liquidity. And I thought that's the most important role of the markets. Even though it may be painful, it's very important from a public point of view to keep markets open rather than close them. So I fought the concept of circuit breakers.

**KD:** This was probably something the Brady Commission was talking about too.

**JH:** They were, yes, absolutely. One of my ultimate successors as head of the NASD, Bob Glauber, was on the task force that Nick Brady put together. The New York Stock Exchange was enamored with circuit breakers, and it ultimately came to a reasonable conclusion. We batted this back and forth, negotiated it even though the NASD and NASDAQ never accepted circuit breakers and, during my tenure, never had them.

**KD:** How did you go about making SOES mandatory? Did you simply take it to the membership?

**JH:** First of all, Bernie and Victor took it to the NASDAQ trading community. They met with a number of the leading NASDAQ market makers, both regional and New York based, and yes, there was resistance. But to give Bernie his credit, he was a leader. And he said, "Look, each time we have put in a new policy or systems change to the NASDAQ market, it has increased the quality of that market, and thereby, has increased

the volume of activity. So, yes, you may not make as much money per transaction, but with the increased volume, you're going to more than offset that.”

**KD:** Did it work out that way?

**JH:** Yes, it did. Every time we made an enhancement to the NASDAQ stock market, that was the result. The volume picked up, credibility increased, the quality of the markets was enhanced, and the confidence of investors in the markets improved. And, by the way, we had institutional investors participate in those deliberations as well as market makers. They were providing us with input. So we took those actions, and I think we probably had them largely done by the end of '88.

**KD:** Was there a sense at this point that you wanted to bring people back in too? Because a lot of folks did bail out of the market, at least for a short period of time, and I know you started some pretty big public relations type things.

**JH:** We didn't start those until after we had made these changes. They really didn't start until 1989, but we knew that we had, within NASDAQ, both a recognition issue and a credibility issue. Once we had made the fixes that we were comfortable with, we had to go out and start branding and selling the market.

**KD:** Who was behind that?

**JH:** Well, it was interesting how that worked. But let me just throw in one additional challenge. The other thing we had to do was to go out and convince the state securities regulators of the improved quality of NASDAQ. In addition to federal and self-regulation, every state had its own regulatory laws. They were, and I assume continue to be, a fairly strong voice in regulations. Companies listed on NASDAQ had never been exempted from the state Blue Sky laws, but the New York Stock Exchange and American Stock Exchange had secured exemptions. The companies they listed on NASDAQ, each time they had a financing, had to be reviewed by multiple state securities regulators as well as the SEC. The NASDAQ-listed companies said to me that, in addition to improving the quality of the systems and enhancing the credibility of the market, you've got to get rid of the Blue Sky law issue. So I spent a good part of 1989 and the early part of 1990, meeting with state securities regulators, legislators, even governors in some instances trying to get NASDAQ exempted from these laws, and we were successful.

**KD:** Were you able to deal with NASAA mostly?

**JH:** It's a very good question. I was dealing with the states one-on-one, but I was also negotiating with the leaders of NASAA. We were trying to get to the point where they could recommend this to their members. We finally secured a memorandum of understanding with NASAA sometime in 1989.

**KD:** So they understood the concept, and why you needed to do it.

**JH:** Yes, they understood it. Basically, they were more interested in the potential loss of revenues. Because each time a company was having a securities offering, it had to file, and it had to pay a filing fee. These fees were a significant source of revenues to help underwrite their securities law and regulation enforcement activities. So the memorandum of understanding basically said, "Okay, we will exempt NASDAQ companies from the Blue Sky laws," with the understanding that any time there was a new offering of securities, it had to be reviewed by NASD and by the SEC. The SEC would collect its fees; the NASD would collect fees for everybody else, and in turn pay those fees to which they would otherwise have been entitled to the states. So they didn't lose that source of revenue.

**KD:** But the fees weren't the problem for you.

**JH:** No, the fees were not a problem for us, nor were they for our issuers. Now we've got a market that's accepted by the state securities regulators, exempted from their Blue Sky laws, and we've got improved systems and market maker commitment. In 1990, I hired a marketing executive—for the first time. There may have been marketing executives in other exchanges, but for the NASD and NASDAQ, it was the first time. He was employed by NASDAQ. His name was Brian Holland and he reported to John Wall who was operating the NASDAQ Stock Market at the time. Brian had a marketing and advertising background. He's a very bright guy, and it was his idea to conduct customer surveys. John and I said, "Okay, before we start any marketing program, let's go out and see what investors think about us."

For a good part of a year, he conducted surveys, he conducted one-on-ones, he conducted group sessions, and he got a lot of information about what investors—institutional and individual—thought of the NASDAQ stock market and the oversight of that market by the NASD. He built quite a case. And then he came back and he said, "Acceptance comes with recognition. And according to our polls, if you ask an investor to, unaided, name a stock market in the United States, 87 percent would name the New York Stock Exchange, 39 percent would name the American Stock Exchange, and only 20 percent would name NASDAQ." He said, "Our problem isn't just one of credibility, it's one of recognition. They don't recognize us as a stock market, per se." And we said, "Okay, what do we do about it?"

With Brian's leadership, we started a marketing campaign that was aimed at branding NASDAQ as a stock market and as a stock market that you could trust. And this began the first effort ever to advertise and brand a stock market. Until the market crash of 1987, and the events that followed, the NASD had been the dominant entity in our organization. NASDAQ was the tail on the dog. It really was small in comparison to the whole organization, in terms of revenues, in terms of management time devoted, in terms of employees.

Our strategic goal was to build NASDAQ as a viable, competitive alternative to the New York Stock Exchange, not just a place where young companies would raise their initial capital through a public offering, grow up and then migrate to the New York Stock

Exchange. We wanted to keep the Microsofts, we wanted to keep the Intels, we wanted to keep those sorts of companies which were driving America's growth.

**KD:** Was this the ad campaign where you brought those companies out?

**JH:** Yes, that's right. The NASD Board was composed primarily of representatives from every district, and a couple of market makers. Out of the twenty-two governors or so at the time, I'd say seventeen were from the industry and five were from the public, and only one of those was from a NASDAQ issuer, and that was Bill McGowan of MCI. When we went to our Board members for approval for the marketing campaign, they said, "We belong to the New York Stock Exchange and the NASD, so why should the members be funding this campaign? You're going to be running advertisements that are going to be promoting the NASDAQ Stock Market, and we don't want you to do it with members money."

That was a setback. Then we took a look at the fees that we charged for listing on NASDAQ versus what the New York Stock Exchange charged, and discovered ours were 1/100<sup>th</sup> of their fees. Our fees were negligible. That led us to go out and call on our leading listed companies. We went particularly to the technology companies because they felt comfortable with a screen-based market, and they knew that was the future rather than a floor-based market.

So we would go to the Microsofts, the Intels, the Ciscos, and MCIs of the world and say, "We want to start this marketing campaign, which will begin with branding NASDAQ. We will feature one of you in each of our ads if you will go along with an increase in your listing fees. We'll still be well below the New York Stock Exchange." So we increased them, basically from \$10,000 to \$50,000 for the larger companies—and for those companies, it probably would've cost them \$250,000 to list on the exchange—with their acquiescence, and then they agreed to participate in these ads. In fact, it was the companies that funded that whole program. It wasn't the members, so we removed the conflict that the members had. And it turned out to be hugely successful.

I can remember when we ran our first ad, I got a furious call from Dick Grasso at the New York Stock Exchange saying, "What are you doing? You're running ads that promote your market at the expense of the New York Stock Exchange." I said, "Dick, the only thing we're doing is trying to make people aware that NASDAQ is a viable stock market, and that we are a viable competitor to yours, and that we've got great companies that trade at NASDAQ. In fact, we think they're the gazelles rather than the elephants that you've got, and that these are the companies that are the future of America.

Obviously, they're interested in making the investing public much more aware of and comfortable with the market in which their securities trade, because they want to satisfy their investors."

**KD:** A couple other things that are happening in this period here. You're making a few initiatives into the international stock market. You were working with London a little bit.

**JH:** Yes.

**KD:** Did that work out?

**JH:** Yes and no. Let me just give you an aside here. Going back to the structure of NASDAQ and the NASD, because we'll eventually get to 1996, you had the NASD, which owned two companies: NASDAQ Market Systems, and NASDAQ Quotation Systems. One of these two companies was a not-for-profit entity, and its earnings were not taxed. So we were able to use those earnings to plow back into the development of the systems and improve the systems. But at some stage in the game, it was in the late 80s again, around the '89-90 era, we got to the point where we were starting to make profits that we couldn't plow back—profits that were exceeding what we were putting back into the systems. We said to ourselves in our strategic planning, "NASDAQ is a business. It's a for-profit business. Why should we keep the tax-exempt entity?" So we consolidated them into one tax-paying entity, the NASDAQ Stock Market, Inc.

**KD:** About when did you do that?

**JH:** I'd say it was '89 or '90. It was shortly before we began the marketing campaign because we wanted the NASDAQ stock market to be viewed as a good citizen -- a tax paying, for-

profit entity -- and we were going to run it as a business. That was a significant change, and that's when we adopted the name, the NASDAQ Stock Market, Inc. Before that, it had been NASDAQ Market Systems and NASDAQ Quotation Systems. That was an important structural change, both internally and among our members and, eventually for the benefit of investors and our listed companies as well. In effect, we had three constituencies: the investing public, our members, and the companies that listed in NASDAQ. That was true throughout my tenure.

Coming to the international side, about the same time, our listed companies were saying they wanted international exposure for their stockholders. I'd meet with Mike Brown, who was the Microsoft CFO. Mike would say to me, "You know, we're an international company. We sell products all over the world." Microsoft, Intel and Cisco were all global companies. And they were saying, "we want a market where our securities can be traded anywhere in the world, any time of the day." I understood their concerns. So we went to the London Stock Exchange.

We chose the London Stock Exchange because it was at that time the second largest stock exchange in the world, after New York. In the late 80s, with our technical assistance, it had moved from becoming a floor-based auction market to an upstairs screen-based dealer market. It was employing NASDAQ technology, so it was a natural partner to whom to look. We started conversations with its leadership. We exchanged technical people. We looked at ways we could do things together. We started trading

NASDAQ securities from London when the London markets opened, which was basically 4:00 a.m. our time.

We also started negotiations and conversations with the Japan Securities Dealers Association, and they subsequently created a market called JASDAQ, which again employed our technology and our systems. But we never got anything formal going in the way of trading with them. That market was primarily for the gazelles of Japan. With London, however, we started a joint initiative, which we continued to pursue. That got us involved in the international markets.

There was another thing we started just about the same time. I found myself saying, "All right, if we're going to be truly a global player, we'd better get some people advising us who know something about international markets." So we created something called the International Markets Advisory Board, and enlisted primarily people from the sell side, from big institutions around the globe. The initial Chairman was Sir David Brooke, who was with S.G. Warburg in London. We had people on that advisory board from all the major markets around the globe: the U.S., London, Germany, France, Switzerland, The Netherlands, Japan, and Australia. China wasn't a factor then.

**KD:** And this became a regular organization?

**JH:** It was an advisory board that met twice a year throughout my tenure. On the advice of but not with the unanimous consent of that advisory board, I approached the London

Stock Exchange probably in 1992, and said, "Why don't we merge the two and become one entity?" Their technical people, a number of their members and their market makers of were very enthusiastic about it.

It finally went to a vote of the London Stock Exchange board and was voted down. The chairman, who was a friend of mine at the time, told me it was largely done on a nationalistic basic, that London just did not want to abandon the concept of having a London Stock Exchange. He said, "Strategically, it makes sense. From a technological point of view it makes sense. The markets are very compatible. We'd love to be able to trade NASDAQ stocks here, have you trade London Stock Exchange stocks there, and we could have an extended trading day." But it was voted down.

**KD:** Too early for that.

**JH:** Too early for that. It did lead to us starting to trade NASDAQ stocks earlier from the European continent, but it was the American firms with their trading desk overseas that were doing that. So we were accommodating foreign buyers and sellers, but we were not truly an international or a global market.

**KD:** I want to start moving into the later years here. I know that you built up your participation in the NASDAQ considerably. Things really started growing.

**JH:** After we had done our branding for one year, we did a survey of what we call MEPs, Managers, Executives and Professionals. Remember our first survey, the one that said 87 percent, New York Stock Exchange; thirty-nine, American Stock Exchange; twenty, NASDAQ. After a year, we were up to a 60 percent recognition. After two years, we were up to an 81 percent recognition. When people say, "Tell me about –" that's the power of advertising, really. They recognize the brand.

**KD:** That's huge.

**JH:** That was huge. And I ran into a huge opposition, first from the New York Stock Exchange, which was totally opposed to the idea. They eventually came around and started their own advertising campaign. Then when Arthur Levitt became the Chairman of the SEC, he also was totally opposed, so he tried to get us to stop. He and I had a strained relationship, going back to the days when I was trying to get Blue Sky law exemption for NASDAQ stocks and he was head of the American Stock Exchange. He knew that if we were successful it would have a negative impact on the American Stock Exchange, so he fought us tooth and nail.

By the time the advertising campaign really kicked in, he had become Chairman of the SEC. So he tried to get us to stop, and we said, "Mr. Chairman, this is a business. We're running a business. And we're competing against not only the New York Stock Exchange now, but increasingly for listings with the London Stock Exchange and Tokyo

Stock Exchange. If we're just a quotation system or even an execution system doing small United States stocks, we're dead."

**KD:** So with this growth, you did some infrastructure upgrades. Which, again, you're doing the infrastructure, which makes it possible to do more with the software. I noticed you put in some programs, something called N-Prove, something called N-Access.

**JH:** That's the same program.

**KD:** Okay, it's the same program. And that leads you to the SEC and some issues with whether to do it or not.

**JH:** Absolutely. During this period of time, a lot of my senior management time was devoted to NASDAQ matters. In retrospect, I probably should've been spending more of my time with the NASD. That had been running well. We did make some significant changes during the 90s in terms of taking over all of the testing requirements from the states and the exchanges and administering a uniform test for anybody that wanted to come into the industry. Then we developed on our own a continuing education requirement, which is one of the things that I'm as proud of on the NASD side as anything I did on that side of the business. We finally got that in place over industry objection in 1995.

I think that was a major step forward in making sure that those people who were dealing with the investing public were current in their knowledge not only of products but of

rules and regulations, because there's always the view that if you can make people aware of and knowledgeable about the rules and regulations, it's less likely that they will violate them. A lot of the violations that we came across in the NASD were inadvertent. Sure there were some that were intentional, but you weren't going to change that. They were the bad guys, and they're going to be the bad guys. You've got 550,000 registered representatives out there. You're going to have probably 1 percent that are bad guys.

**KD:** As things changed and as the size grew, did you see any qualitative change in the kinds of violations that you were detecting?

**JH:** Yes, we did. Another initiative that we had during this period of time was on the NASD side. Beginning again in the late 80s and early 90s, after we got over the NASDAQ crash of '87, the biggest pattern of abuses were in the penny stock market. There were penny stock dealers mostly in New Jersey and the Rocky Mountain area that were bad guys. They were ripping off the public in a big way.

We started an initiative with the state securities regulators to stamp out a lot of those abuses. In doing so, we put a lot of those penny stock firms out of business. These were people that were really ripping off investors. They would buy millions of shares at a penny a share, and then they would promote them and sell them to investors at nine or ten cents a share. Then all the sudden they would disappear, because they would've sold all their inventory to those poor investors. And these investors would have no place to sell.

Not only were the stocks not worth a penny; they were probably worth zero. There was a lot of penny stock fraud that had built up over the years.

That became a big initiative of ours on the NASD side, and we worked closely with the state securities regulators on that, and where there was fraud, we worked with the SEC. And we were successful. The most notable case involved a guy named Brennan in New Jersey, First Jersey Securities. Eventually, we put him out of business; the SEC and the United States District Attorney for New Jersey put him in prison. But we had a lot of examples. I cite the Brennan case because that was probably the most public. We had the help of the media on that too—the media was very helpful. The media is a great friend of regulators and law enforcement officials, because if you can get them on your side exposing a lot of bad practices, it makes the consumer much more aware. We actively worked through our pr group to get the media involved in these activities. So that was a good joint initiative. Those were two things on the NASD side that we were doing: one, increasing the professionalism of our registered representatives, and two, much more aggressively ferreting out the worst sales practices, particularly in the penny stock markets.

Then as a result of what we did with the markets in the SOES system and increasing the automation, during the mid-90s—'93, '94, '95—we started to see abuses of that system being built up by the so-called SOES abusers.

**KD:** Sort of like day traders.

**JH:** They were day traders. Basically, they were using the SOES system to pick off market makers who were not timely in updating their markets. You could do a thousand shares at a pop, and with technology that was available, within a matter of minutes, you could do hundreds of thousands of shares because our systems were capable of doing that. All during this period we were building capacity in NASDAQ, looking forward to days when there would be billion share trading days. We could execute transactions in nanoseconds, really.

The SOES abusers first started not with day traders who were investors, but with a small handful of former penny stock brokers. When we put them out of the penny stock business, they quickly moved over to the SOES business. These guys were making the market makers—who had their capital at risk—furious, and in turn they were screaming at us to do something about it. The only thing we could do were to make sure that they were not abusing the systems, and that they were not naked shorting, which a lot of them were doing. I assume you know what naked shorting is. They were selling stocks that they didn't own without having made any arrangements to borrow those securities.

You were asking me about changes in the regulatory side. We spent a fair amount of time on the SOES abuse issue, which eventually migrated into a more legitimate business called day trading. That's when the public got involved. Some of these guys were pretty smart, and they said, "Oh, there's a real business here," so they put lots of computer terminals in their offices and invite public customers in to trade on them.

The NASDAQ systems had three tiers. If you, as an investor, were looking at a NASDAQ screen, you could see only the aggregated best bid and ask and last sale information. That's level one. By the way, we sold that information for a fee which is how we generated revenues. Then there was level two, which is where any member of the NASD could see not only the level one information but also each individual market maker, since stocks like Microsoft and other large ones had thirty, forty, fifty market makers. Even the less active stocks would usually have five or six market makers. Any NASD member could go to level two and see, one, what the current inside market was; and two, where individual market maker quotes were, and if they were off the market. The level three was the execution capability.

Only registered NASDAQ market makers and registered NASDAQ traders could execute through the systems. What these guys did was they put in a lot of terminals which were supposed to have only level one information, and they would give them the right to execute through level three, which was a violation of our rules. For an individual investor, it was like me going to the slots at Atlantic City. They could go in, sit down at the terminal and trade all day without putting up the capital. At the end of the day, the goal of a day trader is to have no open position. He wants to start the day even, he wants to end the day even. Instead of being legitimate firms, these were individual investors. That was the start of day trading.

The issue became were these individuals trading all day without putting up any money, either cash or on margin? We found a lot of them were not. Eventually, we cracked down on that practice, and that led to, not the demise but the reduction of abuses by the day traders. There were some pretty smart people out there that learned quickly how to use these terminals to manipulate the system.

**KD:** Could you show limit orders anywhere in any of those levels?

**JH:** You're leading me nicely. Even though Arthur Levitt, when he became SEC Chairman in 1993, and I went back and forth on a number of issues, he came to us early in his tenure and said, "You're doing a lot of good things, but there's a lot more that you need to do to improve the quality of the NASDAQ markets. The exchange markets give limit order protection, and you don't do that in NASDAQ." And he was right. So he said, "I encourage you," and those were his words, "I encourage you to develop limit order protection."

We had previously had an old rule called the Manning Rule. It came out of one of the NASD disciplinary cases, in which Manning filed a complaint against one of our market makers for failure to execute a limit order, and for trading ahead of his limit priced order. And he won the case. The NASD staff at the time said, "Okay, how are we going to deal with this?" The Board decided that if market makers disclosed to the public that they did not honor limit orders, then they would not have to accept customer limit orders. The so-

called Manning Rule was in effect during the second half of the 80s and the first half of the 90s.

When the Chairman of the SEC encouraged you to do something, you'd better take a hard look at it. Our market makers were totally opposed to changing the Manning Rule. We decided to try this in two steps. First, let's eliminate the notification requirement and the exemption that was created under the Manning Rule, and require our member firms to honor their own customers' limit orders. They would have to execute those limit orders ahead of their own market-making activities."

Well, you would've thought we stuck a dagger in the heart of the market makers, but we finally got it passed by the NASD board. The SEC and, notably, Chairman Levitt were not satisfied with just that. They wanted us to take the other step—that you had to expose and honor any investor's limit orders, not just your own customer's limit orders. That was something that I couldn't sell to the market-making community. The SEC had to adopt its own rule requiring us to do that. It was the right thing to do, but we couldn't get it done with the governance structure that we had in place then where seventeen out of the twenty-two NASD Board members were from the securities industry, and they were for the most part representing NASDAQ market-making firms.

**KD:** You got it done later. You didn't get it done then.

**JH:** Well, the NASD got it done later, but it was because of the pressure of the SEC. We got the first half done.

**KD:** Was that the order-handling rules?

**JH:** Yes, those were the order-handling rules. The SEC forced our hand on that. They were right. We just didn't have the support of our members. Once again, it resulted in an overall improvement in the quality of the marketplace, and encouraged more people to participate. Yes, the profits per transaction went down, but the transaction volume went up.

We had done another thing to improve pricing in the market around '93 or '94. Price quotations, historically in the United States, had always been done in fractions -- quarter-point or eighth-point spreads, and sometimes in less liquid stocks half-point spreads—the less liquid the stock, the wider the spread. During the early 90s, change was becoming more investor driven, particularly by the institutional investors, who were saying, “You know, NASDAQ spreads are too wide, and you ought to change your systems to permit market makers to trade in narrower fractions.” Over the objections of the NASDAQ market-making community, we modified our systems so they could trade in sixteenths. The institutions were delighted, because on the exchanges, they were now trading at six to seven cents a share while the minimum spread at NASDAQ was an eighth, or twelve and a half cents a share. So we got it down to sixteenths, or six and two thirds cents a share.

That's where most of the liquid stocks eventually traded. The spreads, instead of being twenty to a quarter, or twenty to an eighth, became twenty to a sixteenth.

**KD:** So is this where the concern about spreads really started—at this point with the institutions?

**JH:** Yes. But there were also some academics taking a look at the issue. Two academics, one from Ohio State and one from Vanderbilt, came out with a study in 1994 which said in effect, "Not only are NASDAQ spreads too wide, but there's a pattern among market makers in having quotes in a particular stock all with the same spread. A stock would have a quarter of a point spread, not some market makers with a quarter, and some with an eighth, but all with a quote." I don't think sixteenths were quite in use yet—we were working on the system, but weren't there yet. The academics concluded, "This seems something more than coincidental."

They studied the trading pattern around stocks, and they came to the conclusion that it was more than coincidence; it was collaboration. When that study became public, we, the NASD and NASDAQ, were challenged on that practice.

**KD:** Is that the first you at NASD heard of it when it became public?

**JH:** We had one internal employee about a year before that who worked in our NASDAQ market operations group in Trumbull by the name of Glen Shipway whose responsibility

was market quality. Glen, in a report to us, had suggested that we should take a look at collaboration among market-makers. I turned that over to the head of our enforcement group, which included market surveillance.

**KD:** Is that John Pinto?

**JH:** John Pinto. I asked John to explore it. John was in charge of enforcement. He had a direct report that ran the districts and one overseeing market surveillance. The market surveillance head was Jim Cangiano. They went to a number of the market makers, talked with them about the issue. They concluded it was not a significant issue. So we didn't do anything about it. And in retrospect, that was a mistake, a big mistake. Looking back, if I had to do something differently, I would've had them drill down further and probably should have brought in an independent outside group to study the matter in depth.

NASDAQ was then growing to the point that it was no longer the tail wagging the dog. It was a real business, generating lots of money for NASDAQ Stock Market, Inc., which we were using to fund many of our NASD regulatory activities so we didn't have to have significant assessment on our NASD members. We had 5,400 members, but less than 1,000 of them were engaged in securities markets activities.

A lot were insurance companies selling variable annuity products that had a securities feature. A lot were selling mutual funds only. A lot were selling financial planning. So

they were not involved at all with the NASDAQ stock market. I won't say they could care less. As members, they owned a piece of it, and we were using the NASDAQ profits to underwrite our NASD activities.

I don't think that either at the staff level or at the board level there was a push to really penetrate the pricing issue more deeply. And then, lo and behold, the Department of Justice got a copy of the academic study. And they, on their own volition, without even informing the SEC, undertook a review of trading practices in the NASDAQ stock market to determine whether there was a violation of the antitrust laws. In fact, when the SEC learned about it, they were not happy about the fact that the Department of Justice had initiated the review without conferring with them. They felt it was within their jurisdiction as the agency with oversight responsibility of the NASD and NASDAQ to undertake not only securities laws reviews, but any type of review. There was a little push and shove for a while, but finally, the two agencies got together and agreed on how to proceed.

**KD:** The SEC did undertake its own study.

**JH:** It did, but it wasn't with a view to determine whether there'd been a violation of the antitrust laws. The SEC undertook its review to determine whether the NASD was carrying out its responsibility for regulating and supervising the NASDAQ stock market effectively. So there were two reviews ongoing.

**KD:** And then you had your own, or one that you'd undertaken.

**JH:** Timing is everything. That broke in late spring or early summer of 1994. It was about that time that I had discovered that I had prostate cancer and that I was going to have to have a radical prostatectomy. Initially, it was scheduled for August of 1994, eventually delayed to October of 1994. But during that period of time, the NASD Board, with my full support, decided that since the SEC had its investigation underway and the Department of Justice had its investigation underway, we should constitute an independent group to review the structure of our organization, and whether it was still appropriate, given the size and growth of NASDAQ. We didn't want to duplicate what the SEC was doing. We didn't want to interfere with what the Department of Justice was doing, and they certainly didn't want us to. We wanted to study whether not only was our organized structure appropriate, but also whether the NASD had effectively carried out its oversight responsibilities for the NASDAQ stock market. So we asked Warren Rudman, who was a very independent guy, to lead this committee. Got the report right here. It's my marked copy, but when you called me, I said, "I'd better go back and read that thing." [Laughter].

Warren and his committee did a thorough job, and it was a very good group of people. I think there was only one industry representative, Steve Hammerman, who was general counsel of Merrill Lynch, and was highly regarded in the industry. But we had an institutional investor, Peter Lynch, of Fidelity fame. We had the Dean of the University

of Pennsylvania Law School, Bob Mundheim, who had been a member of the NASD board as a public representative.

We had Irv Pollack, who is the greatest name in securities regulation history, in my judgment, and Al Sommer, who was one of the all-time great SEC Commissioners. The date of the report was September 15<sup>th</sup>, 1995. In the meantime, we had these other reviews underway. Subsequently, the Department of Justice instituted an action, not against the NASD or NASDAQ, but against the market makers. We were not a target of the Department of Justice to my knowledge. At least they never told us we were a target. They were focusing on the market makers and whether they were colluding to fix prices in the NASDAQ stock market.

The SEC, on the other hand, was very much taking a look at the NASD and NASDAQ as part of their oversight responsibility. These three things were going on all at the same time. I forget the timing of the Department of Justice action. I think it was in early '96. Even though the SEC had their investigation going on at the same time, they were willing to await the outcome of our study.

**KD:** DOJ came out first, right?

**JH:** DOJ came out first. They initiated an action against the market makers, who eventually settled by paying a billion dollars, which, at the time, was a lot of money. The market making firms all had to participate in the settlement. Civil suits were also filed but they

never named the NASD and NASDAQ, only the market makers. So in addition to the billion dollar settlement, the market makers had to deal with those.

**KD:** So the Rudman report advises you, essentially, split the two in half. You've got the operations, and you've got the regulation.

**JH:** Absolutely.

**KD:** Was it an “ah-ha” thing, or had that been something that was—

**JH:** No, it wasn't an “ah-ha” thing. I'll be candid with you. It's something we had discussed internally at the staff level in some of our planning efforts. This goes back to the '92, '93, '94 era where we really had made a conscious effort to build and brand the NASDAQ Stock Market, to improve it to the point where it could compete with any stock market in the world. And we kept asking ourselves, “Should we have a separate governance structure for NASDAQ?” But the NASD Board was not really willing to give up its control over the market.

**KD:** Another example of something that may not have been possible before the market maker scandal.

**JH:** Right.

**KD:** So now you're looking at separating the two.

**JH:** Right. I endorsed the separation and we, as an organization, endorsed it. We thought that it was the right thing to do given the growth of the NASDAQ stock market, given our failure to properly pursue the market-making scandal, and given the investigation that the SEC had underway.

So we endorsed it and said, "If we're going to do it, we've got to bring in somebody from outside the organization who has impeccable credentials to oversee regulation." We knew that we had an image problem, both the NASD and NASDAQ. Interestingly, by that time, NASDAQ had grown into such a significant market that we thought the image problem for NASDAQ, particularly since NASD and NASDAQ were not named in those suits, would be far easier to overcome. We could overcome that with some good marketing and advertising and making sure that our major companies stayed with us, which they all did.

We brought in two people to augment our senior management team. The first was Mary Schapiro, who had been not only a popular Commissioner at the SEC, but also the Chair of the CFTC. Mary had then and, as far as I know, still has a great reputation.

**KD:** How did you convince her to come over?

**JH:** It wasn't easy. Mary was, I think, getting a little antsy being in the public sector. She had been at the Commission, and then at the CFTC. And, frankly, earning at that level. We at the self-regulatory level paid considerably more. Her husband was on the faculty at the University of Maryland and she was beginning to have a family. In fact, she'd already had one child, Molly, and then subsequently had another daughter. Mary wanted to make some money and to have a bigger challenge. She was also being recruited at the same time by the New York Stock Exchange, who offered her a job with fairly broad responsibilities.

Mary lived in Washington, she loved Washington, she had a happy home life there with her husband and children. While we didn't offer her as much money as she could've earned with the New York Stock Exchange, she was eager to take on the challenge, and importantly, she wouldn't have to change her lifestyle that much. So we were fortunate. We hired Mary to run NASD Regulation and gave her full authority over all regulatory activities.

**KD:** Good-sized budget as well.

**JH:** We increased her budget. Part of our settlement with the SEC in 1996 was that we would increase the budget of NASD Regulation by \$100 million. That wasn't a problem in terms of dollars. We didn't have to go out and assess our members because we had built up this pool over at NASDAQ, and we had a lot of reserves at the time, so we were able to fund that. To run NASDAQ in 1995, I hired a former colleague of mine at Alex

Brown by the name of Al Berkeley. Al was an institutional all-star analyst, the first guy to reorganize and cover computer software companies as an industry, separately from the hardware companies.

He then became a very successful software investment banker. He helped Alex Brown snag, with Goldman Sachs, the Microsoft deal. He knew all the players in the technology industry. Plus, he had a thorough understanding of how the systems worked that drove the NASDAQ market. He also knew the CEO's of many of our leading companies on a first-name basis. Thus, I hired him to become President and COO of the NASDAQ Stock Market.

**KD:** Where was Rick Ketchum in here?

**JH:** Rick was side-by-side with me throughout. I had hired Rick back in 1991. Rick had been at the SEC for most of his career, living in Alexandria, Virginia, and had a young family of three children and a wife. He had risen to the most senior level that he could achieve, as head of the Division of Market Regulation, without becoming a SEC Commissioner.

He had worked successfully with us and the exchanges to resolve the problems that were revealed in the market crash of 1987. Those issues were largely behind him. I think he was looking for a new challenge. I approached him and said, "Listen, I need somebody with your skills and knowledge of both the regulatory side and the market side of our

business." That appealed to Rick because he did not want to be tagged at that stage in his career just as a regulator. And so I hired him to become the number two person in NASD. I was the president and CEO, and he eventually became the EVP and COO. For a short period of time he served as general counsel, because the general counsel that we had had for years, Frank Wilson, was nearing retiring.

After Frank's retirement, we had a fine young lawyer named Grant Callery whom we promoted to general counsel. Rick then became the number two guy in the organization, EVP and COO. He was largely responsible for overseeing the day-to-day activities of both the NASD and NASDAQ. And I became less involved with the day-to-day activities, and more involved with dealing with investors, members and companies. Rick was more Mr. Inside, and I became more Mr. Outside.

When I first got there I was both, but it soon became clear to me that I couldn't do it all. Having somebody like Rick was a God-send. Rick was there throughout this period as the number two guy in the organization.

**KD:** Right. So you've set up this new structure where you've got the NASD and then you've got the Stock Exchange and the regulation.

**JH:** We've got NASDAQ Stock Market, Inc., NASD Regulation, Inc., a separate legal entity, and the NASD as a holding company for both but no longer as an operating company. This was pursuant to the recommendations of the Rudman Committee.

**KD:** Now it sounds like it would've been a challenge sort of getting this machine up and running and making that move.

**JH:** It wasn't as hard as you would have think because the day-to-day functions didn't change. What changed was the corporate structure and the governance. The governance changed dramatically because on the recommendation of the Rudman Committee, the NASD was going to have a majority of non-NASD members on the board. On the two subsidiary boards, it was going to be 50/50. A real change for all.

**KD:** Did you see that? Were you there long enough afterwards to see that change happen?

**JH:** Yes. I actually helped recruit many of the people that served on those various boards.

**KD:** The outside people.

**JH:** Yes. That didn't make me particularly popular with the industry because non-industry people were going to take over an entity that the industry had controlled in terms of governance from 1939 to 1996. I worked through that in 1996, mostly at the parent board level, not so much at the NASD Regulation or at the NASDAQ board level. We had been moving in that direction at the NASD level for quite some time. When I first got there in 1987, I think there were only three non-industry members on the Board. Of the

twenty-two members, nineteen came from the industry, three came from investors, issuers, and the general public.

And then early on, after we consolidated some of the districts, we increased the non-industry number to five. By the time of these recommendations, we were down to fourteen and eight. So we were steadily increasing the non-member representation on the board.

**KD:** And I take it that there was some resentment building up from those people who have been out in the regions and formerly been very important.

**JH:** Yes. Very important, because when I got there the NASD had thirteen districts, and they had nineteen seats on the Board. We consolidated into ten districts, and they had seventeen seats. Subsequently, we took three more seats away from the districts. We had 5,400 member firms—everybody thinks of Merrill Lynch and Smith Barney and all the big guys, Morgan Stanley—but the vast number of our firms had less than a hundred employees. And they had, through their elected district representatives to the board, enormous power.

**KD:** So some of it was breaking that power.

**JH:** Oh, yes, absolutely. And it wasn't easy. I would not have been able to do this alone. Without the Rudman report, and without Arthur Levitt's insistence—he even came to one

of our Board meetings and was very coldly received -- but basically told us that we had to move more aggressively in that direction.

**KD:** Was it after the report came out that he did this?

**JH:** Yes. It was in January 1996.

**KD:** So he's just kind of saying, "Hurry up here."

**JH:** Yes.

**KD:** Hurry up and implement.

**JH:** Yes. It was his forceful jawboning coupled with the Rudman report, and the Department of Justice actions, and the SEC's pending actions that forced the Board to act. Have you ever seen a copy of the Rudman Committee report?

**KD:** I have not. I'm going to get a copy of that.

**JH:** Oh, absolutely. If I had a clean copy, I'd give it to you. It's just got all my notes on it.

**KD:** That's fine. I'll be looking at one very soon, I'm sure. We've gone a little over two hours.

Is there anything that we should hit before we wrap up?

**JH:** Just a couple of things, I think. So we implemented the changes. The SEC gave us fairly wide latitude in the makeup of our NASD Regulation Board as long as we complied with that fifty-fifty requirement and the same with NASDAQ. But on the NASD holding company board, the SEC wanted to be, and Arthur was, involved in every decision as to who sat on that board because that was the parent board. He insisted that Dan Tully become Chairman of that board.

Okay, there are two things I want to finish up on. All that happened during 1996. I announced in June of 1996 that I was going to be leaving at the end of that year, and a search would be undertaken for my successor. We formed a search committee, which Dan Tully chaired, and eventually they hired Frank Zarb. Frank was hired for several reasons. One, he was a skilled knowledgeable executive; but two, he was a former business partner and a good friend of Arthur Levitt's.

So one of the things the board knew—and they were right—was that we had to repair our relationships with the SEC. And, indeed we did, because they had become quite strained during this last two years.

**KD:** The process was kind of long. You stayed there a little longer than one would have expected.

**JH:** Well, I was determined not to leave until the Rudman report had come out and had been implemented. Going all the way back to my opening comments, when I was hired, I agreed to stay at least five but not more than ten years. When I told them I was going to leave it was nine years. When I left, it was nine and a half.

So as my parting swan song, and I don't know whether you'll be interested in this or not, I've got some talks that I gave and I can make copies. During this period of time, beginning in '94 going through '96, but in January of '97, I had been a member of the Securities Regulation Institute. That was a group of lawyers, industry practitioners and regulators, who would have an annual meeting in San Diego. This is the last talk I gave, then went up to Carmel where my tenure came to an end. In that talk—and Levitt was present in the audience—I talked about the demise of self-regulation through what had happened over the past two years.

The recommendations of the Rudman Committee about how to change the disciplinary process by putting in full time hearing officers rather than a committee of your peers, were taking the “self” out of self-regulation.

I also suggested that the process in developing regulations, both by the NASD and by the SEC, had become so burdensome that it took years to make any meaningful changes. And I cited N-prove, which had become Naqcess, as being something that we were ready to go with systemically in 1994. Because the SEC wanted to tinker with it here, and tinker with it there, it was January of 1997 and it was still not approved. It was designed

to meet the SEC's new order-handling rules. But they wouldn't let us do it, and it became increasingly a source of frustration.

Lastly, and I think most significantly for your purposes, Steve Wallman who was a SEC Commissioner at the time—smart guy—came out of one of the large law firms—Covington & Burling in Washington—and jumped on the following and made it a cause for himself while he was a Commissioner. I called for the complete separation of regulation of the markets from the operation of the markets, and the elimination of the holding company, and the formation of a separate entity, which could be called the NASD or anything you want (now FINRA). Then I suggested the most logical step was to take all regulatory responsibilities away from all markets, and to consolidate them into one self-regulator. So you would have the operation of the markets, which is a business, separate from the regulation of the markets and the members. And that was in 1997.

Guess what?

**KD:** It's here.

**JH:** 2007, ten years later, it's here.

**KD:** Thank you so much. It's been great.

**JH:** So that's my story.

[End of Interview]