

# NASDAQ CHIEF ADENA FRIEDMAN SURVEYS HER LEADING GLOBAL EXCHANGE

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**President and Chief Executive Officer**  
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## **Excerpts from Ms. Friedman's Remarks**

**Why do you have a black belt in Taekwondo, whatever that is?** Well, I would say that, you know, trading in our market is electronic, but Wall Street is like a big sparring match all the time. So having Taekwondo is definitely a helpful skill.

**What do you actually do?** What we really do is allow for buyers and sellers to come together in an efficient way and make sure that the trading's occurring in a fair and efficient manner. And we basically are a global technology company at this point, because we provide the stock exchange here in the United States. And so that's an electronic system that allows buyers and sellers to come together. We have the largest multi-listed options exchange in the United States. We are an energy futures exchange here. And we also own all of the exchanges, other than Norway, in the Nordic markets. And then we also provide the technology that powers 90 other markets around the world. So we, in fact, are a truly global technology company at this point.

**How come tiny companies that listed on Nasdaq, and then grew big, stayed and didn't move over to the New York Stock Exchange?** Well, first of all, a really great fact is, so Microsoft didn't qualify for New York. Apple didn't qualify for New York. Amazon was \$300 million when they listed on Nasdaq 20 years ago. But they've all stayed on Nasdaq. And the reason is because of the fact that we have such a holistic way of looking at their experience as a public company. You know, we've always had to work harder at it. So we've always had a really, really – I think a very strong service model around it. I think they also really like the trading. You know, we are an egalitarian market. Everyone trades on equal footing on Nasdaq, whereas New York they kind of have one person who has a special – they have some special access or some special information. So it's a different model, but I think they've stayed because they really do think that we do a better job.

**Why do companies list on the New York?** Well, I think that they do – I really do mean it – that they focus a lot on the history and they all talk about all the old-school companies that are listed in New York and why don't you want to be part of that? And our view is, well, don't you want to be part of the future, not the past? Don't you want to be – don't you want to be – and also recognize, that we've got companies like American Airlines, Marriott. We've actually had almost a trillion dollars in market got switched to Nasdaq from New York because they do want to affiliate themselves with the future and not the past.

**Do you operate exchanges or technology for exchanges around the world?** So the first thing is, we do own the Nordic markets. So we actually have a big center in Sweden. So we have about 700 employees in Sweden. And they are the global center for us for what we call our market technology business. And one of the great things about Nasdaq is our technology is the

most advanced among the exchanges. And I think that's actually a well-known fact. So what we've done is basically built out a technology division that allows us to offer that technology to other markets around the world. So, for instance, the derivatives exchange in Japan, the derivatives exchange in Hong Kong, all of the Singapore Exchange, Australia, but also markets like Malaysia, Indonesia, the Philippines, almost all the exchanges in the Middle East, Switzerland, they all provide – they all use our technology to support their trading, clearing, settlement market data, and surveillance.

**Is your mission basically to expand Nasdaq and to get as many people to list as possible?**

MS. FRIEDMAN: Well, yes. Our clients today are comprised of listed companies, our broker dealers, of investors, and other exchanges. So when I go out and meet with customers, I'm meeting with all of them. So I will go, for instance, to Asia. And I'll have meetings with companies that are either already listed on Nasdaq or thinking about listing on Nasdaq. And then the next meeting, I'll have a meeting with an exchange that we provide the technology to. And then the next meeting I might meet with a big bank that's using our surveillance platform. And so I actually have the opportunity to really look at the entire ecosystem of the financial industry. And we kind of do sit in the center of it. So I have the most interesting job, I think, in the world, because I get to really understand the intersection of all of the different components of the financial markets.

**In terms of looking for a stock tip – [laughter] – if I wanted to buy stock in Nasdaq, I can do that right?** Yes, you can. NDAQ.

**And is it under value?** Of course it is. [Laughter.] Just like Carlyle is. [Laughter.]

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DAVID M. RUBENSTEIN: Welcome to the 10th event of the 30<sup>th</sup> season of The Economic Club of Washington. Welcome, members and guests of the Club, for this luncheon in the Ritz-Carlton Ballroom of The Ritz-Carlton, Washington, DC.

We're very pleased today to have Adena Friedman, who's the president and chief executive officer (CEO) of Nasdaq, and also a resident of this area. Let me give you a little overview of her background. Adena is the president and chief executive officer of Nasdaq, which is the second-largest market trade exchange in the world. It's a company that she has been the president and CEO of since January of this year.

She's a native of my native hometown, Baltimore. And she grew up there and went to Roland Park Country School, which is actually in the city, not the country – [laughter] – and then went to Williams College and then went to Vanderbilt University for business school at the Owens School of Management.

After that, she joined Nasdaq in 1993, worked in the data products division, ultimately rose up to head that division, ultimately became the corporate strategy officer for Nasdaq, and then ultimately became, as well, the chief financial officer. And then in 2011, she pursued the highest calling of mankind and left Nasdaq to go to the Carlyle Group. [Laughter.] And she became our chief financial officer. And she led our effort to go public, which she was indispensable in doing that. And she was with us until about June of 2014, when she was offered

an opportunity to come back as the president of Nasdaq, and even we could not prevent her from taking that terrific job.

And then in January of 2016, she became the president and chief operating officer of Nasdaq. And now she holds those positions as the president and chief executive officer. She's also been involved in a number of philanthropic activities in the Washington area. She's involved in the Greater Washington Junior Achievement, on the board of that. Very committed to financial literacy and education and also the Community of Hope here in this area.

So, thank you very much for coming.

ADENA T. FRIEDMAN: I guess there's nothing else to say now. [Laughter.]

MR. RUBENSTEIN: Well, so let me ask you this: Nasdaq is well-known for being an electronic exchange type of – way of buying stocks. And therefore, there are no people running around, nobody fighting with each other, and nobody is yelling that I made this commitment or you told me you were going to buy this. So it's all electronic. In light of that, why did you feel you needed to get a black belt in Taekwondo in order to pursue this job? [Laughter.] Why do you have a black belt in Taekwondo, whatever that is?

MS. FRIEDMAN: Whatever that is. Well, I would say that, you know, trading in our market is electronic, but Wall Street is like a big sparring match all the time. So having Taekwondo is definitely a helpful skill.

MR. RUBENSTEIN: And what actually – what do you do with Taekwondo?

MS. FRIEDMAN: Yeah. So it's basically Korean kickboxing. So.

MR. RUBENSTEIN: Oh. I mean, I'll move over here. [Laughter.] Move further away. OK, so let's talk about Nasdaq. Actually, what does Nasdaq stand for?

MS. FRIEDMAN: Oh, it actually no longer stands for anything. But when it was launched it stood for the National Association of Securities Dealers Automated Quotations. So it's a little bit of a mouthful. So we just decided to turn it into a word instead.

MR. RUBENSTEIN: But why don't you just a simpler acronym, like GOOD or LOVE or something? Why don't you just take a simple – if it doesn't stand for anything anymore?

MS. FRIEDMAN: Yeah. I guess people have learned to like it. Though, the interesting thing is that we're one of the only exchanges in the world that doesn't have a city or a country name involved in it. So therefore, it can be truly global.

MR. RUBENSTEIN: OK. So what do you actually do? I mean, if I want to buy stock, do I need to call somebody from Nasdaq? What do you actually do?

MS. FRIEDMAN: Well, it's a good question because sometimes, when I say to someone like a taxi driver, I work for Nasdaq, and his immediate thing is, well, what stock should I buy, right? So he assumes that we're a broker.

MR. RUBENSTEIN: Well, I was going to ask you the same thing in a minute, but OK.  
[Laughter.]

MS. FRIEDMAN: But what we really do is allow for buyers and sellers to come together in an efficient way and make sure that the trading's occurring in a fair and efficient manner. And we basically are a global technology company at this point, because we provide the stock exchange here in the United States. And so that's an electronic system that allows buyers and sellers to come together. We have the largest multi-listed options exchange in the United States. We are an energy futures exchange here. And we also own all of the exchanges, other than Norway, in the Nordic markets. And then we also provide the technology that powers 90 other markets around the world. So we, in fact, are a truly global technology company at this point.

MR. RUBENSTEIN: OK. And at this point, you have market capital of about \$11 billion. So today, if I want to list my company on an exchange, what happens is Nasdaq will come see me, and the New York Stock Exchange will come see me, maybe somebody else, but let's say those are the two. Why should I list with Nasdaq over the New York Stock Exchange? What's the advantage you have?

MS. FRIEDMAN: Well, I think the first thing is that the top five companies in the world are listed on Nasdaq today. So we are the home to innovators. We're the home to the future. We're the home to those companies that really want to look at how they're going to drive the economy forward. So we talk a lot about that brand affiliation. But from a tangible perspective, we really focus on the holistic experience of being a public company. New York really tends to focus on the building and the history and being able to stand on a podium on day one. And we do have a wonderful market – you know, kind of market open for IPO<sup>1</sup>s. And we do a great job on day one. But we really focus on day two and beyond. So we offer a whole bunch of services that help companies be public companies and be successful public companies, in addition to doing all sorts of marketing and other things around that.

MR. RUBENSTEIN: So years ago, not being that familiar with this, I used to think, OK, Nasdaq was for small technology companies that couldn't quite get listed on the New York Stock Exchange. And then they listed Apple and Microsoft as tiny companies. But ultimately they grew and they've stayed. How come they don't move over to the New York Stock Exchange?

MS. FRIEDMAN: Well, first of all, a really great fact is, so Microsoft didn't qualify for New York. Apple didn't qualify for New York. Amazon was \$300 million when they listed on Nasdaq 20 years ago. But they've all stayed on Nasdaq. And the reason is because of the fact that we have such a holistic way of looking at their experience as a public company. You know, we've always had to work harder at it. So we've always had a really, really – I think a very strong service model around it. I think they also really like the trading. You know, we are an egalitarian market. You know, everyone trades on equal footing on Nasdaq, whereas New York

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<sup>1</sup> IPOs are Initial Public Offerings.

they kind of have one person who has a special – they have some special access or some special information. So it's a different model, but I think they've stayed because they really do think that we do a better job.

MR. RUBENSTEIN: So if you were representing the New York Stock Exchange, what would be the argument you would make for why I should list on New York Stock Exchange?  
[Laughter.]

MS. FRIEDMAN: Well, I don't want to give you all of that information. But I would say –

MR. RUBENSTEIN: OK. Because there must be some argument you can think of.

MS. FRIEDMAN: [Laughs.] Well, I think that they do – I really do mean it – that they focus a lot on the history and they all talk about all the old-school companies that are listed in New York and why don't you want to be part of that? And our view is, well, don't you want to be part of the future, not the past? Don't you want to be – don't you want to be – and also recognize, that we've got companies like American Airlines, Marriott. We've actually had almost a trillion dollars in market got switched to Nasdaq from New York because they do want to affiliate themselves with the future and not the past.

MR. RUBENSTEIN: Does anybody ever switch from you?

MS. FRIEDMAN: We used to have more companies switch from us, but they have not – we haven't had a lot of that lately. So –

MR. RUBENSTEIN: OK. All right. OK. Well, I would hire you to be the head of the New York Stock Exchange. You'd be a very effective spokesman for your exchange. So you don't think they're going to hire you, right?

MS. FRIEDMAN: I would hope not. [Laughter.]

MR. RUBENSTEIN: OK, so today who owns the New York Stock Exchange?

MS. FRIEDMAN: So New York is actually a subsidiary now of another company called the Intercontinental Exchange. So it is called ICE. So New York was sold out to ICE about five years ago.

MR. RUBENSTEIN: OK. So to be very honest about it, does it make a difference for your share price whether you're on the New York Stock Exchange or Nasdaq? In other words, if I was saying I might list on you or I might list on the New York Stock Exchange, is there any way I can tell you my stock is going to go up more on yours than on the New York Stock Exchange?

MS. FRIEDMAN: You know, I'd love to be able to make that argument, but we don't – it's not true.

MR. RUBENSTEIN: Right. It's not true. [Laughter.]

MS. FRIEDMAN: So essentially, there's literally no difference in how a stock trades between being on New York and Nasdaq, in terms of the types of investors that can invest. The same investors invest in both New York and Nasdaq-listed securities. Today – you know, it used to be that, if you were listed on New York, you had a one-, two-, or three-character symbol, and if you were listed on Nasdaq you had a four-character symbol.

And today that's no longer the case. So you can have a one character symbol and list on Nasdaq and have a four-character symbol and list on New York. And the reason that's relevant is investors therefore really don't actually know which exchange a lot of stocks are listed on anymore, because the trading's completely the same no matter where they go. Trading is completely electronic, whether it's on Nasdaq or New York at this point.

MR. RUBENSTEIN: And I should disclose, Carlyle is traded on Nasdaq and we're very pleased.

MS. FRIEDMAN: Yes.

MR. RUBENSTEIN: We did listen to both sides, and we get calls all the time from the New York Stock Exchange telling us why they're better. But so far, we're very happy. So just full disclosure.

MS. FRIEDMAN: But I remember the pitches actually, David. So it was actually a very unique opportunity for me, having come from Nasdaq to be the CFO<sup>2</sup> of Carlyle, and watch the pitches from both sides.

MR. RUBENSTEIN: So, in the New York Stock Exchange, one of the things that they advertise, and it's appealing, I think, is when you list there you get to go to the top of the New York Stock Exchange trading floor and you ring the bell. And when you're trading and you're effective and so forth. Who are the people scurrying around on the floor below you, because why do you need those brokers and those runners anymore? What are they doing?

MS. FRIEDMAN: They're not runners.

MR. RUBENSTEIN: What do they do?

MS. FRIEDMAN: Well – [laughter] – I mean, all the trading in New York is essentially occurring electronically. So –

MR. RUBENSTEIN: So what are those people doing? Is that, like, a façade?

MS. FRIEDMAN: They're helping you feel like there's something going on there. [Laughter.]

MR. RUBENSTEIN: Oh. So they just show up for the IPO bell ringing and then they go back?

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<sup>2</sup>CFO is chief financial officer.

MS. FRIEDMAN: Well, if you watch – if you were to show up for the market open and then you show up an hour later, it looks very different.

MR. RUBENSTEIN: Oh, really?

MS. FRIEDMAN: It's much emptier an hour into the day.

MR. RUBENSTEIN: OK. All right. Well, I'll leave that as you've said. I'm sure I'll be hearing from the New York Stock Exchange. OK.

MS. FRIEDMAN: I'm sure you will. [Laughter.]

MR. RUBENSTEIN: So today, you trade on companies that are principally located in the United States or based here. But tell me, you operate exchanges or technology for exchanges around the world. What does that do?

MS. FRIEDMAN: So the first thing is we do own the Nordic markets. And so we actually have a big center in Sweden. So we have about 700 employees in Sweden. And they are the global center for us for what we call our market technology business. And one of the great things about Nasdaq is our technology is the most advanced among the exchanges. And I think that's actually a well-known fact. So what we've done is basically built out a technology division that allows us to offer that technology to other markets around the world. So, for instance, the derivatives exchange in Japan, the derivatives exchange in Hong Kong, all of the Singapore Exchange, Australia, but also markets like Malaysia, Indonesia, the Philippines, almost all the exchanges in the Middle East, Switzerland, they all provide – they all use our technology to support their trading, clearing, settlement market data, and surveillance.

MR. RUBENSTEIN: All right. So you get a fee. If I list on Nasdaq, I pay you a fee for the listing and so forth. But every time somebody buys my stock, do you get a little percentage on that?

MS. FRIEDMAN: Yeah. For any stock that's traded on our exchanges, we get a fee for every trade. It's tiny. It's like a one-one hundredth of a penny.

MR. RUBENSTEIN: It's not adequate, you're saying.

MS. FRIEDMAN: I'm sorry?

MR. RUBENSTEIN: It's not adequate for the service you're providing? [Laughter.]

MS. FRIEDMAN: We are very, very – we are a great value to all customers. [Laughter, applause.]

MR. RUBENSTEIN: OK. So – OK. Now, what is hyper trading and high-frequency computer trading? Are they doing that on Nasdaq or the New York Stock Exchange? Or is that off of those exchanges?

MS. FRIEDMAN: So it's a combination. So high-frequency trading is a broad name for essentially algorithmically driven trading. And that can be market makers today – whether you're on New York or Nasdaq, almost all the market-making activity is occurring through algorithms or thought electronic strategies. And that's one version of high-frequency trading. But the fact of the matter is, it is the modern market maker. And that happens on the exchanges. And then on top of that, they could also manage their flow across different venues. There are about 40 non-exchange venues that exist that trade with U.S. securities today.

So it's a very intricate web, where we trade about 15 percent of the New York Stock Exchange-listed companies' volumes. New York trades about 15 percent of Nasdaq's companies' volumes. There's another exchange called BABS<sup>3</sup> that trades all of the securities in the United States. And then there's a whole web of non-exchange traded venues that trade as well. So it's an intricate network that allows for all the trading in the United States to occur.

MR. RUBENSTEIN: OK. So there is a phenomenon in Silicon Valley, and I guess around the United States, of a unicorn. A unicorn is a private company that has a very high market capitalization. And it used to be the case that companies, when they got some revenue and maybe a little earnings, they would go public, because that was the way to cash out or make the investors happy or something. Now, people want to be unicorns. They want to have these high private values and not go public. Is there a reason why people don't want to go public? And do you try to get people to go public when they don't really want to go public?

MS. FRIEDMAN: [Laughs.] Well, I mean, I think the first thing I would say is there is actually a challenge right now in companies that money in the capital markets, as you – I mean, in the private markets, as you know, is pretty easy to come by these days. And so there are a lot of companies that are getting access to capital without having to go public. And they're becoming very large organizations without being a public company. And it's an easier life. You know, you don't have to provide disclosures to the SEC<sup>4</sup>. You don't have to show everyone in the world who you are and what you do and, as you know, how much the executives make and everything else. So it's an easier existence.

And so therefore companies are saying, well, what's the cost-benefit analysis of going public? And what they're finding today, because of all the regulations and all the standards that we've been putting on people for the last several decades, is that the benefit doesn't always outweigh the costs. And so one of the things that we've been discussing, and we actually announced yesterday, is kind of this blueprint for how do you make the public markets more inviting and because otherwise more and more of those companies will stay private and will only be available to a very small subset of investors around the world.

MR. RUBENSTEIN: And you think that wouldn't be good for the country generally, or?

MS. FRIEDMAN: Yeah. I mean, I think a couple things. One is the wealth disparity will – you know, so our view is make the private markets a little bit more liquid and allow for more

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<sup>3</sup> BABS stands for SPDR Nuveen Barclays Build Amer Bd ETF.

<sup>4</sup>SEC is Securities Exchange Commission.

investors to invest. Make the public markets more inviting and allow every investor to enjoy these great companies. And on top of that, there's a great stat that says – that the SEC put out, actually – since 2000, 74 percent of all job growth occurs after a company goes public. So if you really want to make sure that you're promoting job growth and growth of the economy, you've got to make the public markets a more efficient and, frankly, inviting place to be.

MR. RUBENSTEIN: OK. Let's talk about your background for a moment. So you grew up in Baltimore. Your father was an executive at T. Rowe Price. And did that encourage you to get into business, the fact that he was in business? Did you ever work at T. Rowe Price as a young child? [Laughter.]

MS. FRIEDMAN: Actually, I had a lot of fun there. So, you know, T. Rowe's a very unique business, because it's a public company, it's an incredibly successful public company, but it operates a bit like a family. And because Baltimore is, as you know, a smaller city, the community around T. Rowe Price is really strong. So, when I would have a day off of school, I would go to T. Rowe Price for the day and hang out. And the secretaries would give me stuff to do. And I would hang out down on the trading floor, which frankly was a small room at that time, and I would draw pictures. But I really enjoyed going to my dad's office. And so I actually really felt like I was kind of part of the place. And I did enjoy it. And that definitely sparked my interest in the industry, for sure.

MR. RUBENSTEIN: OK. So you went to business school and then you went to work at Nasdaq. Right out of college, right?

MS. FRIEDMAN: Right out of business school, yeah.

MR. RUBENSTEIN: Right, business school. How did you get that job?

MS. FRIEDMAN: Well, I actually went in as an intern. How did I get that job? So I would say that I was able to get an introduction into the company through someone from Baltimore, who got me, you know, kind of introduced into the company, but then of course I had to prove myself once I got there. [Laughs.]

MR. RUBENSTEIN: OK. All right. So you were there for a number of years. You worked your way up. You were a very important person. You were a CFO. How did somebody convince you to leave Nasdaq and go to the – [laughter] – more important world of private equity? How did that happen?

MS. FRIEDMAN: Yes. Well, you know, I will tell you that, first of all, you have a good headhunter, because they cold called me. And they had no idea I was living in D.C., because I lived in D.C. but I was working in New York. And they said, have you ever heard of a company called Carlyle. And I was like, yeah, that's, like, the best financial firm in all of Washington. Yeah, I've heard of Carlyle. And then they asked about the role. And they said, well, Carlyle is thinking about the potential to go public. And I said, well, that's pretty darn interesting. So they – I usually never took cold calls, but when I heard the name Carlyle, I actually – I obviously

needed to return the call. But then you guys definitely did a nice job of making it sound like a pretty cool place to work.

MR. RUBENSTEIN: OK. So, when you were working at Carlyle, what did you learn about the private markets that surprised you or that made you think was different from what you had been led to believe it would be like?

MS. FRIEDMAN: Well, I think to the average person – by the way, you know, private equity is not a well-known investment thesis. You know, you probably think that everyone understands carried interest and 2 and 20 and how, you know, all the funds are structured and co-invest and all of that.

MR. RUBENSTEIN: I thought it was on the SAT<sup>5</sup> test and everything. Everybody –

MS. FRIEDMAN: Exactly. [Laughter.] I mean, it seems so logical and easy to understand. [Laughter.] But to an average person, it's a really mysterious structure, in terms of what private equities funds do and how they manage their investments. So, learning the intricacies of private equity was fascinating. And I do actually think that private equity does serve a very important role in the economy. So I am a believer in having – you know, having the right mission. You have to feel like you're working for someone who's doing the right thing. And I would say Carlyle really is focused on – and I'm not just doing an ad for you – but Carlyle is really focused on making sure that they are providing value to pension funds and other people who are saving on behalf of a lot of Americans. So it's important.

MR. RUBENSTEIN: Right. Despite what we do, somebody induced you to leave. So how did you decide to leave and go back to Nasdaq?

MS. FRIEDMAN: Yeah. I was wanting to avoid that question. No, I think – [laughter] – I loved working at Carlyle, as you know. I had a great time. [Laughter.]

MR. RUBENSTEIN: Well, you're always welcome back, of course, but –

MS. FRIEDMAN: But I – you know, I had grown up on the business side. I'd run a P&L<sup>6</sup> for a long time. I was – I loved working with clients and kind of managing a business. And then I became the CFO of Nasdaq and then came over to be the CFO of Carlyle. And I realized that being a CFO, I enjoyed it a lot. It's a great skill builder from an operational perspective. It's great at being able to support the strategy of the company. But I really missed having the ability to work with customers to drive a business. So when Bob called and asked if I wanted to come back as president, which meant I was running the businesses, I really couldn't turn it down, I have to say.

MR. RUBENSTEIN: OK. So today as the CEO of Nasdaq, you were recently voted by Forbes as not only the 31<sup>st</sup> most powerful woman in the business world, but the 31<sup>st</sup> most powerful woman in the entire world. So did that go to your head or anything, or? [Laughter.]

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<sup>5</sup>SAT is a globally recognized college admission test.

<sup>6</sup> P&L is profit and loss.

MS. FRIEDMAN: I actually wanted to call them up and ask them how on Earth they – what kind of criteria they had.

MR. RUBENSTEIN: You were ahead of the Queen of England. [Laughter.]

MS. FRIEDMAN: It is a little shocking. I agree with you, David. [Laughter.]

MR. RUBENSTEIN: OK. All right. So did any of your high school classmates call you up and –

MS. FRIEDMAN: Oh, yeah. I got some emails. Yeah, they found it to be pretty funny. [Laughter.]

MR. RUBENSTEIN: So today, your mission is to basically expand the Nasdaq and to get as many people to list as possible. And so you travel the world to get people to list. Is that right?

MS. FRIEDMAN: Well, yes. Our clients today are comprised of listed companies, our broker dealers, of investors, and other exchanges. And so when I go out and meet with customers, I'm meeting with all of them. So I will go, for instance, to Asia. And I'll have meetings with companies that are either already listed on Nasdaq or thinking about listing on Nasdaq. And then the next meeting I'll have a meeting with an exchange that we provide the technology to. And then the next meeting I might meet with a big bank that's using our surveillance platform. And so I actually have the opportunity to really look at the entire ecosystem of the financial industry. And we kind of do sit in the center of it. So I have the most interesting job, I think, in the world, because I get to really understand the intersection of all of the different components of the financial markets.

MR. RUBENSTEIN: Now, when you're in a meeting, are you usually the only woman in the meeting, or there are many women now, or how does it feel? How many women are running exchanges around the world?

MS. FRIEDMAN: There are actually a few. So I won't name them all because I can't, but I think there are six women in exchange leadership positions today around the world. But Dublin, Norway, myself, and then really interestingly the chairwoman of the Tadawul exchange, which is the Saudi Arabian exchange, is a woman. And she's a powerhouse woman. I met her a couple weeks ago. And she's incredibly impressive.

MR. RUBENSTEIN: And have you been to Saudi Arabia before?

MS. FRIEDMAN: No, it was my first trip, actually.

MR. RUBENSTEIN: OK. So today do you feel that there is discrimination against women in your financial services area that you deal with, or you feel today there is no real barrier for people like you?

MS. FRIEDMAN: I don't – I don't experience it. But then I, of course, am in a certain position. I would say that my experience in the financial industry has been extremely positive. And I have never felt – maybe one time – two times, one back in my 20s. [Laughter.] So this is a long time ago, unfortunately, for me now. But about, you know, 20 years ago I would say there were a couple of moments when I could tell that there was a difference in how I was being treated. But I would say beyond that, it's been really a positive experience.

MR. RUBENSTEIN: And did you ever think when you joined Nasdaq in 1993 you could rise up to be the CEO?

MS. FRIEDMAN: Oh, no, no. I did though – it was interesting. I've always been kind of a goal-oriented person. So I was pretty good at giving my manager an understanding of where I wanted to be able to go with my career.

MR. RUBENSTEIN: So in Washington, do you have to deal with regulators a lot? Do you come here to lobby them? And who regulates you?

MS. FRIEDMAN: Yeah. The SEC and the CFTC<sup>7</sup> are our two major regulators. And the SEC, being even, you know, probably the one that we have the longest relationship with. And we file over 400 filings a year with them to manage our exchanges. We're incredibly regulated by the SEC.

MR. RUBENSTEIN: And do you meet with Members of Congress to explain – do they understand what you do?

MS. FRIEDMAN: Mmm hmm. So I think that – [laughter] – the staffers do. I mean, so – (laughter, applause) –

MR. RUBENSTEIN: Well, that's nice.

MS. FRIEDMAN: I mean, yes, I think there's certain – there's certain congressmen who really take it upon themselves to understand the markets. Or they come from the markets. They come from the industry, so they inherently at least understand the basics of the markets. And then there are others where, frankly, we do actually work really extensively with the staffers, because they do really, really work hard to understand what we do.

MR. RUBENSTEIN: OK. So let me make sure I understand. If I want to buy stock, I call up a broker or go online to do it, how does the process actually work? Just through Nasdaq. Does some computer get this order and then it just looks for somebody else who wants to buy at that price? And what's the difference between buy and sell typically?

MS. FRIEDMAN: Yeah, sure. So the first thing is, let's say that you decide that you want to buy Apple. And you're a client of Schwab or T.D. Ameritrade – I'm going to have to name them all, otherwise they'll get upset with me – or eTrade. So let's say you're a Schwab client. You'll enter the order to Schwab. And Schwab has incredibly advanced technology today to be able to

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<sup>7</sup> CFTC is Commodity Futures Trading Commission.

take that order and route it to the best price. They route it to the best – either the best broker or the best exchange in terms from a price perspective. And they have an incredible ability to route orders in microseconds. And they will basically find the other side, or a broker will commit to them to basically approve the price you order and execute it immediately.

It's one or the other. And generally speaking, our minimum spread is a penny. So you could end up having the buying and selling interest of, you know, the difference of a penny. And certainly in Apple that would be the case. But oftentimes you'll actually end up getting executed at the midpoint between that spread, because that's what brokers do for you today. They are incredibly good at improving a price. That's one of the things they pride themselves on. So you usually get an instantaneous execution inside the spread.

MR. RUBENSTEIN: And so there's no advantage though typically in buying at the end of the day or beginning of the day? That's all gone? There's nothing – there's no advantage in trading any particular time of the day?

MS. FRIEDMAN: I mean, we still get about – I would say 12 percent of our volume occurs between the opening auction and the closing auction. Part of that is – there's two reasons for that. A lot of investors will put in their orders overnight. And so the brokers will basically place those orders into the opening auction and allow for that price to be discovered at the open. And then at the end of the day, the institutional investors use the closing price as the benchmark for their net asset value at the end of the day. So they tend to like to try to put their orders into the close, and have a lot of executions at the closing price.

MR. RUBENSTEIN: All right. Suppose I was a North Korean operative and I wanted to hurt the United States economy and government in some ways. And I said, I'm going to go hack into the Nasdaq computer system and shut it down so nobody can trade. Is that possible?

MS. FRIEDMAN: Well, I'd like to say the answer is a definite no. And I would say that we are incredibly, incredibly focused on cybersecurity. All of the exchanges are incredibly focused. All competitive barriers go away when it comes to cybersecurity. I think that we are extremely good at communicating with each other, working with the industry, learning from each other, making sure we're giving each other information about what we're seeing and how we're protecting ourselves so that we're constantly staying head of nefarious players.

It is a constant exercise. And we use a lot of technology. Our team goes out to California on a regular basis and meets with a lot of different companies that are doing good things in cybersecurity. We take in a lot of different technologies. We work very extensively with those companies. And we also work extensively with the government. So the government is very involved, and all of the critical infrastructure players, in giving us a lot of information as well. So it's as protected as it possibly can be from any sort of nefarious action.

MR. RUBENSTEIN: So you mentioned you have the five biggest companies by market value are on your exchange. So it's Apple, Microsoft, Facebook, Google, and –

MS. FRIEDMAN: Amazon.

MR. RUBENSTEIN: Amazon. OK. So you have five. Do you have to call up Jeff Bezos every other day – [laughter] – or Tim Cook and say: Don't go on the New York Stock Exchange? Does that ever happen?

MS. FRIEDMAN: You know, they're happy customers. So the answer is no, I don't call them up and bother them every day. I do – we do work pretty extensively with the heads of IR<sup>8</sup> and the CFOs of those companies to make sure that they're getting everything that they are looking for from us. We provide them a whole suite of solutions – like investor relations services and PR<sup>9</sup> relations services. So we do have regular touchpoints with them in terms of providing them service, like, all the time.

MR. RUBENSTEIN: OK. All right. So now that you're the CEO of a publicly traded company, big market cap, sometimes, you know, people in your position are offered jobs in the government. So would you ever be interested in – you know, you live in Washington. You know the government. So would you ever want to go serve in the government? Any particular Administration – not this one particularly, maybe anymore – would you like to go?

MS. FRIEDMAN: Well, it's interesting. You know, when I was in college, I was a political science major because I thought I was going to go work in government. And then I worked on the Hill – I worked on a campaign and then I worked on the Hill for a summer.

MR. RUBENSTEIN: And you had enough of that, or?

MS. FRIEDMAN: Well, it was an interesting experience. You know, as a college student, you're kind of totally idealistic around the fact that you think that government is doing – always doing the right thing for their constituents and it's a perfect process. And then you get to Washington and you realize kind of it's not a perfect process. And I just realized that for me I felt like I could make more of an impact in business than in the government. But it doesn't mean that I'll never consider it, honestly.

But usually you look at it – I think I remember talking to Hank Paulson<sup>10</sup> once. And he said, you know, the best times to get great talent into the government is at the beginning of their career or at the end of their career. Because they're either – they're going to learn a ton very early. You're going to get exposed to things incredibly early in your life working for the government. And at the end of the government you have a chance to give back. So I think that those are interesting times to consider it.

MR. RUBENSTEIN: So President Trump hasn't called you for advice though, yes, or?

MS. FRIEDMAN: No, he has not. [Laughs.]

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<sup>8</sup> IR is investor relations.

<sup>9</sup> PR is public relations.

<sup>10</sup> Hank Paulson was Chairman and Chief Executive Officer of Goldman Sachs and later became Secretary of the Treasury.

MR. RUBENSTEIN: He hasn't? OK. All right. And let's talk about your nonprofit activities. You're involved in financial literacy with the Junior Achievement? Why are you interested in that subject?

MS. FRIEDMAN: Well, actually, Nasdaq has its own foundation that's focused on financial literacy and entrepreneurship. And so that's been our focus for many, many years. But for me, when I really thought about it personally, thinking about giving people financial independence, allowing them to really understand how to manage their financial lives, gives them an enormous amount of power to be able to go through their life successfully. And I think our children – our children – are incredibly lucky because they've grown up in financially oriented households. And we've gotten, obviously, the opportunity for them to go to great schools.

But the vast majority of kids don't have a chance to really understand some of the foundational elements of managing a financially secure life. And I think that Junior Achievement in particular does a spectacular job of working with kids. I've actually gone and done JA in a day with Carlyle and with Nasdaq, where you go in and you teach fourth graders, fifth graders. And you teach them kind of the basics of running a business or the basics of, you know, managing a checkbook, or the basics of – and then in middle school they send them – and especially this particular Junior Achievement branch – they'll send them out to do, like, a Game of Life out in Virginia for the day.

I don't know if you ever played the Game of Life. It's an awesome game. [Laughter.] It was, like, my favorite game as a kid. But you have to learn how to manage – they give you a certain amount of money. And everyone's getting a slightly different amount of money. And you have to go through life. And then in the middle of life you'll think, like, I just bought a new car. That's awesome. And then they say, oh, you just had twins. And so then you have to figure out how to manage your checkbook with having twins suddenly come into your life. And so they do a great job of helping kids realize how hard it is to manage their financial lives. It's pretty great.

MR. RUBENSTEIN: OK. So your own kids, are they are interested in going into the financial services world? You have two sons.

MS. FRIEDMAN: Yep, I do. So I think one of them thinks he does, which is the younger one. But I don't know. The older one is kind of torn between public policy and going into business, but does not want to go into the financial world.

MR. RUBENSTEIN: Really? Why?

MS. FRIEDMAN: I don't know. [Laughter.]

MR. RUBENSTEIN: OK. Well, you can correct that. So now we've talked about this before. You have an advantage sometimes in the financial services world. You have the last name Friedman. So people might think, you know, very smart, nice Jewish girl, but you're not Jewish, right?

MS. FRIEDMAN: That would be correct, yes.

MR. RUBENSTEIN: Right. So do sometimes people want to give you awards for Jewish things when you're not Jewish?

MS. FRIEDMAN: Yes. [Laughter.] Yeah. So the – I think the – I should know the name for – I think the Jewish Council of New York called me up one day when I was at Carlyle and they said: You know, we really would love to have you be the businesswoman of the year. And I said, that is so nice of you. I just want you to know that I'm not Jewish. And there was, like, a minute of silence on the phone. [Laughter.] And then they kind of quietly said, well, that's OK. [Laughter.] So I actually did it.

MR. RUBENSTEIN: But they didn't try to convert you or anything?

MS. FRIEDMAN: You know, we had – it was so much fun. I have to say their dinner is great. [Laughter.] And at the end of the evening, the guy said: I just can't believe you're not a member of the tribe. [Laughter.]

MR. RUBENSTEIN: Well, you can always convert. We're looking for more. [Laughter, applause.] So today, you know, you're relatively young and you're relatively new in this position, so it's early to talk about a legacy. But what would you like to see as your achievement at Nasdaq? What would you like the people to say that you did five, 10 years from now in terms of Nasdaq?

MS. FRIEDMAN: I mean, I'm always focused on how do you use the position you're in, no matter what position you're in, to change the world in a little way. And I think that the great thing about Nasdaq is we actually have a chance to change the world in a big way because of the role we play here in the United States in allowing companies to raise capital and be successful and grow jobs and grow their businesses. And outside that world – outside of the United States, we provide the technology that powers all these emerging markets.

And if you think about a national economy, or just a state, they are generally focused on obviously having a central government, having a central bank, having an airline, and having an exchange. And it's kind of a foundation of now I'm a country. And so being partners to all of those great exchanges and helping those exchanges succeed really feels good, that you know that you're driving growth in the economy. So I would say that I would love to see Nasdaq continue to grow its role as being kind of the center of the financial markets, but also the center of the overall marketplace economy that I think is developing around the world. And I would love to think that, you know, by the time I'm, you know, retired and happy – a happily retired person, that we've really kind of positioned Nasdaq to be the center of the economy.

MR. RUBENSTEIN: But you're not going to ever retire, right?

MS. FRIEDMAN: I – that's a good point. So I have to tell a story about David. So my first year at Carlyle, right before the summer, I, you know, was just making small talk with David right before – which we don't do a lot of – but right before a management committee meeting.

And I said, David, so what are you doing for vacation this summer? And he said, Adena, if you go on vacation you stop. And if you stop, you get sick. And if you get sick, you die. So I'm never going on vacation. [Laughter.] And I was like, that was really interesting. And then he's very quick to say, but you can go on vacation. It's OK. [Laughter.]

MR. RUBENSTEIN: That's generally my view, yes. [Laughter.] But OK. So – [laughter] – well, my real theory is that when you slow down your immune system goes to sleep and then the germs come in and they attack a sleeping immune system. So I don't want my immune system to fall asleep. That's the theory. It may work. Maybe not. But anyway, OK. [Laughter.]

So today you are very happy with what you're doing.

MS. FRIEDMAN: I love what I'm doing.

MR. RUBENSTEIN: And returning to private equity's probably not in the cards anytime soon.

MS. FRIEDMAN: Not right now. I'm really enjoying what I'm doing.

MR. RUBENSTEIN: OK. And will you be doing more public speaking? As one of the role models for women in business, you're obviously capable of being a great role model. Are you going to increase your profile and do more things like that?

MS. FRIEDMAN: Well, I do think that being the head of an exchange does tend to come with a more public profile. So it's not something I, you know, aspire to do, but I do think it's important that we get the word out the right way.

MR. RUBENSTEIN: And in terms of looking for a stock tip – [laughter] – if I wanted to buy Nasdaq stock itself, to buy stock in Nasdaq, I can do that right?

MS. FRIEDMAN: Yes, you can. NDAQ (Nasdaq).

MR. RUBENSTEIN: And is it under value?

MS. FRIEDMAN: Of course it is. [Laughter.] Just like Carlyle is. [Laughter.]

MR. RUBENSTEIN: Well, I would just – extremely under value. I would say that Adena was invaluable in our company, did a great job. We were sorry to leave – to have her go to Nasdaq, but obviously she's done a great job in Nasdaq. And I want to thank you very much for this conversation and thank you for the great job you're doing for people who buy into the shares of companies that are sold on Nasdaq and for the Washington business community as well, because you really live in the Washington area. Thank you.

MS. FRIEDMAN: Thank you very much. [Applause.]

MR. RUBENSTEIN: Let me give you a gift. On behalf of the members of The Economic Club of Washington, I want to give you a copy of the first map of the District of Columbia.

MS. FRIEDMAN: Oh, that's great! [Applause.]

MR. RUBENSTEIN: Thank you.

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**Adena T. Friedman**  
**President and Chief Executive Officer**  
**Nasdaq, Inc.**



Adena Friedman assumed the role of president and chief executive officer of Nasdaq on January 1, 2017, and is a member of the Board of Directors. Ms. Friedman brings more than 20 years of industry leadership and expertise, and is credited with significant contributions that shaped Nasdaq's strategic transformation to a leading global exchange and technology solutions company with operations on six continents.

Prior to her appointment as chief executive officer, Ms. Friedman served as president and chief operating officer of Nasdaq throughout 2016 and was responsible for overseeing all of the company's business segments with a focus on driving efficiency, product development, growth, and expansion.

Ms. Friedman rejoined Nasdaq in 2014 as president to oversee the technology, information, and corporate businesses that comprised over two-thirds of Nasdaq's revenues. Prior to her return, she served as chief financial officer and managing director of The Carlyle Group from March 2011 to June 2014, and played a significant role in taking the company public in December 2012.

Before Carlyle, Ms. Friedman was a key member of Nasdaq's management team for over a decade, serving in a variety of roles including head of the company's data products business, head of corporate strategy, as well its chief financial officer. She played an instrumental role in the company's acquisition strategy, overseeing the acquisitions of INET, OMX, and the Philadelphia and Boston Exchanges. She originally joined Nasdaq in 1993.

She has been outspoken on the topic of women in leadership and is an avid supporter of mentoring and career opportunities for women in the financial services industry. She is also an advocate for financial literacy and education and has served on the Board of the Greater Washington, DC, Chapter of Junior Achievement, a non-profit that supports youth in their journey to financial independence.

Ms. Friedman earned an M.B.A. from Owen Graduate School of Management, Vanderbilt University, in Nashville, Tennessee. She holds a B.A. in political science from Williams College in Massachusetts.