

THE ECONOMIC CLUB

O F W A S H I N G T O N, D. C.

Interview with Economic Experts on COVID-19

Adena T. Friedman
President and CEO, Nasdaq, Inc.

Kurt Newman, M.D.
President and CEO, Children's National Health System

Ted Gayer
Executive Vice President and Senior Fellow for Economic Studies
Brookings Institution

Jason Thomas
Managing Director and Head of Global Research, The Carlyle Group

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ANNOUNCER: Please welcome David Rubenstein, president of The Economic Club of Washington, D.C.

DAVID M. RUBENSTEIN: Thank you very much. Can you see me? Yes. OK. Thank you all and welcome very much to this fifth of our virtual meetings we're having at The Economic Club of Washington. Today we have a very, very packed program, very, very impressive group of people that I will be talking to. Before I introduce them, let me just make a couple other announcements. I want to make sure everybody recognizes that we have another program next week. We will announce it probably in a day or so, for next Friday. We'll have another virtual program. And then the following week, on April the 28th, we'll hear from Dr. Tony Fauci, who is the head of the National Institute of Allergy and Infectious Diseases. Obviously, everybody is very familiar with Tony Fauci now.

Today's program is for members of the economic Club of Washington, but also, we have invited members of the diplomatic corps, and also members of The Economic Clubs of Chicago and New York to watch as well, and many of them are doing so. We also will be putting this on our website, as soon as this program is over, at www.EconomicClub.org. And so, anybody can watch it later on if they'd like to do so.

What I'd like to do now is introduce the people we will be having today. And I'll give them a fuller introduction. I'll just mention their names now. The first will be Adena Friedman, who is the president and CEO of Nasdaq. Then we'll have Kurt Newman, who is the president and chief executive officer of Children's National Health System. Then Ted Gayer, who's executive vice president of Brookings Institution and senior fellow in economic studies there, and Jason Thomas, a managing director and head of global research at The Carlyle Group.

Let me start now with Adena. Adena, can you hear me?

ADENA T. FRIEDMAN: I sure can.

MR. RUBENSTEIN: OK. So, thank you for doing this. Let me give you a proper introduction. Adena has been before The Economic Club before, but for those who may not know Adena's background she is a native of my hometown of Baltimore. She went to Williams and did her business degree at Vanderbilt. She joined, I think, in 1993 Nasdaq, and rose up ultimately to be the CFO and the head of strategy. We recruited her to Carlyle to be our CFO for a number of years, and then Nasdaq recruited her back and she's now, for the last four years, the CEO and president of Nasdaq. And I should point during her time there, even though the market's down a little bit now, the stock market price of Nasdaq, since she's been the CEO, is up 50 percent. The market capitalization is up 40 percent. So, congratulations to you for doing that.

And let me just ask you, Adena, where did you get that sign behind you? Did you put that up yourself, or what is that? I mean, you're in your home, right?

MS. FRIEDMAN: [Laughs.] Yeah. Yeah. I am in my home. But we have a very avid marketing organization. So, they sent me this giant sign that I constructed in my office. It's taking up about half my office. But everyone now remembers that I work for Nasdaq. [Laughs.]

MR. RUBENSTEIN: OK. So, let's talk about Nasdaq. Right now – at the peak, Nasdaq index was whatever it was. Now how much down is it? Is it down 10 percent, 20 percent? What is it down?

MS. FRIEDMAN: It's down about 18 ½ percent from its peak. The peak was on February 19th. And since then, it's down – as of yesterday, it's down about 18 percent.

MR. RUBENSTEIN: And how have – let's say the Dow Jones is down by or the S&P 500 down equivalent numbers?

MS. FRIEDMAN: They're down by 19 and 20 percent. So, a little bit more. And I think the difference is just the nature of the companies that list on Nasdaq. We definitely list companies from every segment of every industry, but we do obviously have a bent towards health care and technology. And I think those two segments have not been impacted as much.

MR. RUBENSTEIN: I thought you were going to say it's because the CEO is better.

MS. FRIEDMAN: [Laughs.]

MR. RUBENSTEIN: No? OK. So, let me ask you, during this have you had shortages – stoppages, I should say – have you stopped trading any time because markers were reached, certain limits were reached?

MS. FRIEDMAN: Yeah. We do have something called a market-wide circuit breaker that was put in place after the flash crash about 10 years ago. And all of the markets collaborate to establish a marker where if the markets go down by 7 percent then all of the markets halt for 15 minutes. And then we reopen the markets through an auction. And the purpose of that is twofold. It was really originally – the original purpose was to make sure that if there are trading technologies that may be creating a problem in the market, that you pause the market and allow the market to recalibrate and reopen.

In this particular case, we have investor sentiment and fundamental investor sentiment that's driving big shifts in the market. And as a result of that, it allows the market to pause, allows investors to recalibrate their strategies and their portfolios, and then come back into the market 15 minutes later. And it has had the effect of, in some cases, stabilizing the market, or at least stabilizing the decline.

MR. RUBENSTEIN: OK. So, but the markets have never closed, right? And you're not a big believer the markets should close?

MS. FRIEDMAN: Yeah. The markets have not closed. And we are adamant and passionate about the fact that it's important to keep the markets open and operational. And there are really two – if you think about what are the markets for? The first key constituent, of course, are companies who raise money on – into the stock market. And they raise that money under the prospect that they will always have access to the market to continue to raise money. We call it

permanent capital vehicle. If we suddenly closed the market and choke off that access to capital, particularly right now when so many companies do need choices in terms of raising capital, I think that would be really detrimental to their experience in the public markets.

And the second, of course, are investors. Investors have put their hard-earned savings into the market. Now, in a time when they are facing a lot of disruption themselves, if you close the market and choke off their access to their savings at a moment when they might need it the most, that is obviously a big break in trust. And so, when you reopen the market, you can imagine that they would race to the door. So, it's really important to keep the markets operating, to allow investors to express themselves.

And, frankly, all of the markets today are very interconnected. If we tried to close the equities markets it'll have a material impact on the fixed-income markets, the derivatives markets, and others. So, it's an interconnected system. It works well. I realize that obviously people don't like to see the level of declines, but that is a reflection of investor sentiment. But in our view, keeping the markets open and operational is paramount.

MR. RUBENSTEIN: Now, your business is to operate the markets for the companies who trade on Nasdaq. But you also have a business where you provide technology to trading markets around the world. How is that business going right now?

MS. FRIEDMAN: Well, so, yeah, we provide technology to 120 other markets around the world. And we also provide market surveillance technology to 160 broker-dealers in 50 markets around the world. And that has obviously been a big, growing piece of our business. We have a partnership with these – with these other exchanges. And so, as they've been facing unprecedented levels of volatility and volume themselves, we've been making sure that they feel entirely confident in the – in the functioning of their markets as well. And we are very proud of the fact that our technology has done quite well, both for our own markets but also for our clients throughout this process.

MR. RUBENSTEIN: Now, you were at NASDAQ during 9/11, I believe, is that right?

MS. FRIEDMAN: I was, yes.

MR. RUBENSTEIN: How is this different than 9/11, in terms of the markets operating?

MS. FRIEDMAN: Well, I think – and it's a great question, David, because 9/11 was a physical event that occurred in New York City. And at that time, so much of everyone's infrastructure – the trading firms' infrastructure and certainly our competitive exchange was – it was really tied to the floor. Nasdaq actually was not physically impacted because the way that we have a distributed server model, and we didn't have infrastructure in New York City. But the fact is, that our clients couldn't connect. So, it was a very, very significant physical disruption to the ability to trade. And therefore, the markets did close for four days as a result.

In this particular case, this is a health emergency. This is not a physical emergency. But on the back of 9/11, what did occur is that the SEC realized that the markets really – we needed

to advance the ability to back each other up, to create more resiliency across the exchanges, and to drive all of the exchanges to become electronic. And as a result, I think you're now seeing the benefit of all of that now. So, we are an interconnected system of exchanges. All of the exchanges can operate electronically, when they're all – we actually closed our options floor in Philadelphia, CME quickly closed their floors, and New York ultimately closed theirs. And as you can see, all of the markets are continuing to operate seamlessly in electronic format.

MR. RUBENSTEIN: So, have you been talking to the SEC and others about things that the SEC and the government can do to make it easier for people to trade now and remove some restrictions?

MS. FRIEDMAN: Yeah, we actually – I think that there are two key components to that. One is access to capital and liquidity. And the banks really – I think that the Fed has done a great job of supporting that and making sure that the banks can, frankly, serve their role right now in this very disruptive period, where they can put more capital to work to support the liquidity in the markets. And the Fed has changed some of the rules to enable that to happen. I think the second is the fact that we want to make sure that the – that the system kind of operates seamlessly throughout this period of time. We haven't actually had to change any regulations on the back of that. We have been, though, working very closely with the SEC and with other government agencies, just to make sure that the functioning of the markets is as seamless as possible.

MR. RUBENSTEIN: So now some people are saying the markets are down, it's a time to go in and buy stocks cheaply. Do you think it's a good idea to rush in and buy now? Is it the bottom? Or you don't give stock advice?

MS. FRIEDMAN: I don't give stock advice. But I do listen to a lot of advice. And I've heard I think that – I don't think that really anyone quite knows what's going to happen next. So, it all depends on your time horizon whether or not you have conviction maybe in a certain sector or in a certain strategy. You know, I would say I'm not generally an investor. I tend to let that be done by professionals, like Carlyle. But I do think that there could be some opportunities if you have the right time horizon.

MR. RUBENSTEIN: Well, if I want to take my company public should I forget it this year? Is it too hard to get a company off the ground as an IPO now?

MS. FRIEDMAN: So right before the crisis began, we actually had 27 IPOs in the first six weeks of the year. So, we were coming into 2020 with a really strong pipeline of companies wanting to go public. We've had two companies go public since the crisis began, both in the health care space. And the reason they've been able to get off successfully is because, again, they have a very long-term business plan. Their business plan, which is to provide – one was related to sickle cell anemia, one was related to cancer research. So, they have a long-time horizon for investments, the investors have a very long-time horizon, and, frankly, their research is not going to be heavily impacted in the short term. So, they were able to get out.

But most companies are either just waiting for a better moment, when investors are more ready to put some risk capital to work, or they are being disrupted in their business models and

they're just going to have to be able to demonstrate how they can bounce back or how resilient they are through that before investors are going to – are going to take that risk with them.

MR. RUBENSTEIN: But if you do –

MS. FRIEDMAN: We hope that we'll see some IPOs in the second half of the year, but that's kind of where we're – what we're focused on right now.

MR. RUBENSTEIN: But if you do an IPO now how do you ring the bell or something like that? Do you have a ceremony?

MS. FRIEDMAN: We do! We actually did a virtual ceremony for the company last Friday. So, we – since we're electronic, and we have big billboard – you know, our screen up in Time Square is an electronic screen. We basically did a whole ceremony of them opening the bell kind of electronically and celebrated with them that way.

MR. RUBENSTEIN: How many employees does Nasdaq have?

MS. FRIEDMAN: We have 4,000 employees in 30 countries around the world.

MR. RUBENSTEIN: The ones in the United States, are they all working at home? Or is anybody in your offices?

MS. FRIEDMAN: Oh, pretty much everyone is working from home. We have a very small handful of employees in different parts of the world that are choosing to come into the office. But we can operate the markets completely and manage everything from our work from home environment.

MR. RUBENSTEIN: So now you – Nasdaq is based in New York. But you are – you have a home in Washington, D.C. Are you in that home now?

MS. FRIEDMAN: I am. I'm in – I'm in Washington. So, I'm in New York normally all week and then I come home on the weekends to Washington. But now I'm – we're based in Washington. Which is funny because, you know, Nasdaq actually was originally based in Washington. From 1971 until 1999 Nasdaq was headquartered in Washington, D.C. So, it's kind of like we're bringing Nasdaq back to its original home. [Laughs.]

MR. RUBENSTEIN: So how is it like being – you have two sons and your husband. Are you all cooped up in a house now? And is it OK? Or not so difficult?

MS. FRIEDMAN: You know, I'm very fortunate, first of all because the kids are grown. So, they're actually active contributors to all of the things we have to get done here. And second of all, I think that we – it's been actually nice to have them home. You know, when would I have another opportunity to have two grown – you know, adult children living at home with me? I actually see it as a real positive, from that perspective.

MR. RUBENSTEIN: So, have you had to have layoffs at Nasdaq?

MS. FRIEDMAN: We have not. We have not. I think our business model is very diversified and resilient. About 75 percent of our revenue is recurring revenue, whether it's data sales or contracts for technology, as I mentioned, or other technology services we offer to our corporate clients. And about 25 percent of our revenue is based on transaction revenue, based on trading. And obviously trading has been at an elevated state. So right now, we feel that we have a resilient business model to manage through this crisis situation.

MR. RUBENSTEIN: And have you had employees infected by the virus that you know of?

MS. FRIEDMAN: We have. Not – you know, it's interesting. We have – we ask our employees to – they don't have to – but they volunteer to tell us when they haven't felt well, so that we can then go inform their colleagues if they – you know, particularly before we went to work from home environment. And so, we have had people get sick, but only a handful have actually tested. So it's an interesting situation where I think a lot of people are not actually – they don't have access to the testing or they're choosing not to get tested, but they are treating themselves as if they are sick with the virus, so that they can do the right thing for their families and their colleagues.

MR. RUBENSTEIN: Now, those people that are working from home, all of your employees, did you find that you had enough computer power to make sure it was possible for everybody to work from home?

MS. FRIEDMAN: Yeah. Actually, right after – I would say after 9/11 and then again after Super Storm Sandy in New York, one of the things that we really focused on was business continuity planning. And I always say that our risk management team was really absolutely terrific at being pleasantly persistent – [laughs] – throughout the last 20 years to make sure that we really did put together comprehensive business continuity plans. And that included a very comprehensive technology plan to build out an infrastructure to support work from home, and to build out all of our tools to be able to be managed remotely. And so that's been a very long and big investment we've made to prepare for something like this. Now, we couldn't have expected it to be like this, but we are well prepared for it.

MR. RUBENSTEIN: Now, have you been in touch with the U.S. government Treasury as well, or people on Capitol Hill who work on various things of interest to the Nasdaq members?

MS. FRIEDMAN: We have. So, we've been in pretty constant contact, of course, with the SEC, which is our primary regulator. I'm also on the board of the New York Fed. So, I've had interactions with them throughout this process. And then we do speak with Treasury and other – and, actually, members of Homeland Security, and others that are really important to us and to our members in making sure we're creating the right environment for them to be able to provide liquidity and capital to their clients, to be able to trade remotely to keep their employees safe, as well as to make sure that they understand the role that the markets are playing in the economy.

MR. RUBENSTEIN: So, has the Fed been helpful to members? Or what the Fed is doing helpful to your members?

MS. FRIEDMAN: Yeah. I think that the Fed has done – and I – you know, as a board member, I'm not involved in any decision making that they are making here, but I have the opportunity to hear from them occasionally. But I do believe the decisions that the Fed have made have been really instrumental in stabilizing liquidity not so much in the equities markets, where I think that the liquidity has been – it's a very deep pool of liquidity that's very persistent, but in some of the fixed income markets, like the investment-grade debt, the commercial paper markets, repo markets and others, where there was – and the Treasury markets – where there's been much more disruption of liquidity. And I think the Fed's done a great job of not only putting their capital to work, but also looking at the rules – the capital rules and enabling the banks to commit more capital into the markets.

MR. RUBENSTEIN: Now, some people say that we should eliminate short selling during these kinds of periods of distress. Do you agree with that, or not?

MS. FRIEDMAN: So, we don't agree with eliminating short selling. So, during the credit crisis there were some decisions to limit or eliminate short sales for a period of time. And on the back of the credit crisis we actually changed our short sale rules. So today the short sale rules are much more restrictive and particularly if the stock declines by 10 percent in a day, we then put a special rule in place that says that short sellers cannot sell on a downtick. So, they basically have to be passive in the book. They can't drive the stock down with their activity. And not only for the rest of that day, but the next day as well.

And so, we do have, I think, a lot of protections in place. But we have to remember that as much as people don't like the concept of someone selling before – [off mic] – they are big providers of liquidity. And market makers will use that rule to allow them to commit capital into the market throughout the day. So, it is a technical rule. It's an important liquidity provider. And we do believe there are proper protections in place.

MR. RUBENSTEIN: Let me ask you a final question, Adena. What is Nasdaq doing in the philanthropic area in this crisis?

MS. FRIEDMAN: Well, it's important to recognize that we all have a role to play in society. And one of the things that we were a big proponent for and a supporter of was the change in the purpose of a corporation, and with the BRT¹ last year. And I think it's something where our employees immediately started saying: Let's make sure that we're doing the right thing for the community around us. We have committed \$5 million of cash, as well as another million dollars of marketing support.

And we put it into three organizations. One is the World Health Organization in their work with frontline health care workers. The second is with the World Food Bank, making sure

¹ "Statement on the Purpose of a Corporation," published by the Business Roundtable (BRT), Aug. 19, 2019 (<https://www.inc.com/peter-gasca/in-this-single-statement-ceos-from-largest-us-corporations-just-changed-purpose-of-business.html>)

that people have access to food in this very disruptive period. And the third is with the Opportunity Fund, which really helps small businesses renegotiate or get loan forgiveness. And obviously in this period of time it's so critical that there are experts out there working with the small businesses to help them through this. So those are the three groups that we've chosen to support.

MR. RUBENSTEIN: Adena, I want to thank you for giving us this much time. And is there any final message you would like to give to everybody that's watching about Nasdaq?

MS. FRIEDMAN: Well, first of all, I do want to thank you and The Economic Club for giving me the opportunity, but also for the work you're doing to keep everyone informed across the spectrum of what's going on. It's so important for us to communicate right now. The second is that I do want to communicate that I think Nasdaq and all of the markets are well-prepared for what's happening. And hopefully we will continue to see that we can start to recover in a sustainable way in the weeks and months ahead of us, and that the markets and the plumbing of the markets will continue to serve the economy well. So, thank you.

MR. RUBENSTEIN: Thank you very much, Adena. Bye.

MS. FRIEDMAN: Bye-bye.

MR. RUBENSTEIN: OK. I'm now going to bring in Dr. Kurt Newman. Kurt, can you hear me?

KURT NEWMAN, M.D.: Yes, I can, David. Thank you.

MR. RUBENSTEIN: OK. For those who may not be familiar with Kurt, Kurt is very actively involved in The Economic Club of Washington, for which we're very appreciative, but Kurt is also, as I mentioned earlier, the chief executive officer and president of the Children's National Health System. He is a graduate of the University of North Carolina, and better than that though he got his medical degree from Duke University. And he's been a pediatric surgeon throughout his career. He started at Children's Hospital in 1984, I believe, and rose up to be the surgeon in chief and then later the CEO, which is a position he'd had since, I think, 2011.

So, Kurt, can you tell us – Kurt, can you tell us now, where are you physically?

DR. NEWMAN: I'm here at the hospital in my office on Michigan Avenue in Washington D.C.,

MR. RUBENSTEIN: OK. So, Children's National Hospital, how many beds do you have?

DR. NEWMAN: We're licensed for 323 beds. Sometimes we go higher than that when there's a lot of patients. But we generally run around 300 or so.

MR. RUBENSTEIN: OK, are your beds filled now with children, or with non-children? Are you taking non-children into the hospital?

DR. NEWMAN: Our census is lower than normal right now. We're at about 200-220. And this is part of ramping down all of the elective surgery, anything we could put off, so that we're ready for the surge. What we've done in terms of getting ready for the surge, with the other hospitals in the region and with the leadership of our mayor and the governors, is to accept and bring in all the children from all the other hospitals in the region so that we can play that role. Because we know that adults are more affected medically and they'll need their resources for the adults. We also raised our age limit during the course of this crisis to age 30, so we can take young adults, and that way contribute to the surge capacity in the region.

MR. RUBENSTEIN: You wouldn't consider raising it to 70, would you?

DR. NEWMAN: For you, David, we'd raise it whatever it needs to be.

MR. RUBENSTEIN: OK. So, Kurt, let's talk about the cooperation among other hospitals. Are you guys working together well, or not?

DR. NEWMAN: Yeah. It's incredible. We're lucky in this region to have just great medical centers and hospitals, and terrific leaders. So almost every other day we're on the phone with each other. We're taking patients just this week from Georgetown through a conversation with the CEO there, from MedStar, Johns Hopkins. Everybody's working together because we know that this is just such an incredible and unprecedented thing there is no way we're going to get through it without that kind of collaboration and cooperation.

MR. RUBENSTEIN: Now, why do you think it is that children seem to be less infected by COVID-19 than adults? What do you think is the reason?

DR. NEWMAN: Yeah. So, it seems that they get infected and they can spread this virus, but they don't get the medical intensity as much as adults. And that's very unusual. Most viruses will hit young children, and infants, and adults, and that's where the severity is. And for some reason with this one, children seem to be protected. And I think there's a lot of interest in why that is. And does that suggest some treatments, cures, or why are children protected? So, I think that's going to come along. We're going to find out a lot of things as we get into more of the research capabilities here.

MR. RUBENSTEIN: Now, you mentioned the surge. When do you expect the surge will occur in the Washington metropolitan area?

DR. NEWMAN: Well, there's different models. And you know, it's hard to get your handle completely on – and as it gets closer you get more and more data and it gets more and more accurate. From the best thing we can tell right now is we're thinking it's mid-May. Now, there's certain models that suggest that it may be later than that, and some models that suggest it may even be earlier and we're already starting to see it. So, it's a very confusing scenario right now to know exactly. What we're doing is preparing for the worst and hoping for the best.

MR. RUBENSTEIN: Now, do you have enough supplies? Do you have enough ventilators? Do you have enough gowns, gloves, masks, so forth?

DR. NEWMAN: Yeah. This has been a very challenging thing. But it's just been wonderful to see how the community steps up. And we're starting to access a lot of different supplies. Our researchers, I've got one here, they're using our 3-D printer to create a facemask like this with engineers at the University of Maryland. So, there's a lot of public-private partnerships. But there are some things that we're short on. And it's been amazing, a lot of The Economic Club members – and I want to thank them – have been reaching out, sending meals over. We got a big load of hand sanitizer from one of the hotel chains here, from the CEO there. It's just been an amazing community of things. But right now, we're in solid – really good shape with the respirators, everything that you need.

MR. RUBENSTEIN: Is there anything that the business community can do to help you beyond what has already happened? Is there anything in particular that you need that you don't have yet?

DR. NEWMAN: Well, I think that there's a lot of ways to offer up help. And we certainly would love to – this idea of people sending things, meals over, or resources over to the hospital for our workers. It just means so much. They're not only balancing a lot of stress and anxiety at home, but they're coming in and working on the frontlines and, you know, putting themselves in the way of maybe getting this infection themselves. We had about 20 of our doctors, nurses, frontline staff test positive now. And so, they're out on quarantine. Most of them are recovering beautifully.

But, and that's the importance of testing too. We stood up two weeks ago, with another great leader here, Pat McGuire over at Trinity University, a drive-through testing site, first in the nation, for that – for children – on her campus at Trinity. And it's been just terrific because we've been identifying these kids early. And they can be sources of spread. So that's – although they don't get that sick usually, they can be sources of spread. So, to identify it and keep them out of harm's way has been a major advance.

MR. RUBENSTEIN: Now, are you involved a bit with the people working on the vaccine?

DR. NEWMAN: Well, you know, it's – our research is starting to get that work going. What I'm really excited about, and this is sort of in the post-pandemic world, is that – you had Jane Adams on from Johnson & Johnson, I think, last week. With our research and innovation campus out at Walter Reed, Johnson & Johnson is one of our partners out there with J Labs, as well as BARDO, which is a big federal agency that just got \$2 billion for vaccine research. So, this post-pandemic world, we think we're really poised in this region to take advantage of that in terms of economic development, with the NIH, the FDA, and really push that kind of science forward.

MR. RUBENSTEIN: So, what is your biggest worry right now?

DR. NEWMAN: My biggest worry right now is that this surge is going to come and come hard, and that the virus is going to – that some of our workers are going to get really sick. And just – we have 7,000 employees. And I just worry that they're going to be impacted like we've seen in

New York and some other places. So, we're doing everything we can to protect them, to make sure that they're safe and healthy.

MR. RUBENSTEIN: And obviously doing the interview you don't wear a facemask, but are you wearing a facemask when you're not doing this interview?

DR. NEWMAN: Absolutely. We're on a – all across the hospital everybody's wearing facemasks. And, you know, I wear it out into public. I was mowing my lawn last week with a facemask. You know, I think it's just good modeling because this is really what's going to flatten that curve. And I think – you know, I think we all as leaders need to promote the kind of behavior. It's really right now the only thing that's truly protecting us.

MR. RUBENSTEIN: Have you thought of hiring somebody to mow your lawn and you could work more on the health care problem? Or you like the exercise?

DR. NEWMAN: David, it's not only the exercise but it's kind of a Zen moment. I'm out there, and it's just me and nature, and lawn mower. I mean, there's something about it for me that is really great.

MR. RUBENSTEIN: Now, as I go – you know, from time to time I go out and I see a lot of people now wearing masks. Where are they getting these masks? How – did people have them in their houses? Where – how do all of a sudden people have all these masks?

DR. NEWMAN: Well, it's amazing of how many people had stocked up on masks at their home. I don't know, you know, if they were worried about some other situation happening, but – and we've had a lot of them sending these supplies to us. So – and people are making them too. We've got these just incredible folks that have companies, they have textile companies and they're converting them over to making masks. And so, there's just this whole kind of very interesting culture now of we've got hundreds and hundreds of masks coming in of all different designs.

MR. RUBENSTEIN: So, what is your family doing? Is your family at home? And how's that working out?

DR. NEWMAN: Yeah, well, like Adena, our family is home. I have two boys. One was a senior on college, he's online finishing up, and the other son is working, but working online. And we're together. I mean, that is a silver lining. All of us are together. And it's just really kind of special in that way. But I also worry about the long term here, and particularly with children. You know, how is this – how are they experiencing things and how are they going to internalize this, and how are we going to think about this going forward? Because inevitably, and I'm really positive and optimistic this is going to be over and get through it, but there are going to be some long-lasting consequences that we need to be mindful of.

MR. RUBENSTEIN: So, let me ask you a final question. The best way for people watching this to avoid getting COVID-19 is, what?

DR. NEWMAN: Is to stay at home, wear a mask, wash your hands frequently, and really wait out and follow the leadership here in our region and nationally.

MR. RUBENSTEIN: And contribute to the Children's National Hospital?

DR. NEWMAN: That would be a big one. And – but, you know, we're – we've been around for 150 years. We're going to be here for another 150 more. This was going to be our birthday. We're just going to put it off a year and – but, you know, it's – there's a lot to look forward to.

MR. RUBENSTEIN: Kurt, thank you very much for everything you're doing. And we very much appreciate your giving us this time. Thank you.

DR. NEWMAN: Thank you, David. And thanks to all the members of The Economic Club.

MR. RUBENSTEIN: Thank you. So, thank you, Kurt.

And now what we're going to do is talk about the economy. And to talk about the economy we have two experts that I will briefly introduce. One of them is Jason Thomas, who is a managing director and head of global research at the Carlyle Group. Obviously, I know him quite well and worked with him for many, many years. Prior to that, he worked at The Private Equity Council as director of research, and prior to that he was a special assistant to the president of the United States in the Bush 43 administration, working at the National Economic Council. Graduate of Claremont McKenna and got his Ph.D. in economics at George Washington University.

Also, we have Ted Gayer. Ted Gayer was, I'm proud to say, a Ph.D. from Duke University, undergraduate from Emory. He is an economist who's been at Brookings for a number of years, though he's taught elsewhere, and he's been involved in research at other places. But Ted was the co-head of the economics program at Brookings for many years, ran it solely for the last five years, and has been promoted by John Allen, the president of Brookings, to be executive vice president, in effect as chief operating officer, among other things, at Brookings.

So, can you both hear me now?

TED GAYER: Yes.

JASON THOMAS: We can.

MR. RUBENSTEIN: OK. So, Ted, why don't I ask you first, are we in a recession, a depression, or something worse than depression?

MR. GAYER: We are most definitely in a recession. We had unemployment insurance claims of over three million two weeks ago, followed by over six million a week ago. So, \$10 million in insurance claims – people filing for initial insurance claims, are jaw-dropping numbers. Unemployment is likely going to be in the 10 percent range this month, in April. As far as a depression, there's no – the best definition of a depression is the historical Great Depression.

That was, I would imagine, deeper. They had a 25 percent unemployment rate one year. And also, the duration was longer. So, we had elevated unemployment for 12 years, which let's hope won't happen here. It's not the expectation here.

I would just add one other point. I think we need another word for this one. Recession, depression tends to be, you know, tied up with lack of aggregate demand and need for stimulus. Here we are deliberately suppressing the economy. So maybe this is a suppression compared to what we've experienced in the past. It is unique, for sure.

MR. RUBENSTEIN: OK. And, Jason, what do you call this? What do you think we're in?

MR. THOMAS: Well, I think that we have to note that the data from March were unlike the data from any month we've really ever observed. We entered the month of March with household consumption expenditures growing at about a 2 ½ percent annual rate. Based on internal and public data, it looks like we left the month with those expenditures contracting by at least a 30 percent annual rate. So, you know, the levels in terms of the macroeconomic variables, the rate of change of many of these macroeconomic variables, are something that we would expect to observe maybe once every 250 years.

So, I really – I just want to emphasize the historic and really – people have used the word unprecedented. Well, unprecedented, that's true. But unprecedented I hear used sometimes to describe President's Day appliance sales. So, it really doesn't capture how dramatic the change in data was.

MR. RUBENSTEIN: I see. Now, you've grown a beard since this happened. Are you going to keep that beard until this is over?

MR. THOMAS: You know, I think all options are on the table. But thank you for noticing.

MR. RUBENSTEIN: So, Ted, let me ask you this. Has Brookings closed down now? Is everybody working at home at Brookings?

MR. GAYER: Yeah, everybody has been working at home for at least three weeks. I can't remember the exact date. I think we were on the leading edge of that curve, as far as signaling that we were going to be working for home and getting ready for it.

MR. RUBENSTEIN: So, you're at your home in Washington. How is the experience? You have children at home with you, and so forth?

MR. GAYER: I've got three children, younger than your previous guests. I have a third grader, eighth grader, and 10th grader. I'm fortunate enough to be married to a schoolteacher, so she has a lot of the oversight of their distance learning experience. But like your other guests, it's been an opportunity to come together as a family, do all sorts of things we've never done before. Jason's growing a beard. I had a 13-year-old cut my hair this week, which I never thought would happen. [Laughs.] But, yeah, we're painting various rooms. I'm doing my own little mini

stimulus. Since I'm not very handy, I try to install things and I wind up with holes that I then I have to fill. So that's one of my activities.

MR. RUBENSTEIN: OK. Jason, are you at home? Do you have children at home with you?

MR. THOMAS: I do, yes. I have four children. This year they'll be turning 11, nine, seven, and two. So, it's a packed house. I live in a townhouse. So, it's an exciting time, I'll say that.

MR. RUBENSTEIN: OK. So back to economics for a moment. Do you think that the Federal Reserve can do any more than they've already done? Or you think that, you know, there's nothing else for them to do?

MR. GAYER: Is this for me? I can take a jump in if you want. Well, I think it's first – I think it's, first, important to recognize that they've done a lot. They were early and aggressive, as they should be – should have been. It's kind of head-spinning a little bit, getting into the precipitousness that Jason was referring to. All these – all these unconventional measures that happened at the Great Recession that was drawn out over a period of time now seem to be just taken off the shelf instantly. So, dropping rates to zero, forward guidance, standing up a lot of the facilities that they had before.

What can they do now? I mean, some of it they are doing new things, that we're waiting to see how it goes. They're going to be doing more direct lending. They have a Main Street facility that they announced but have not implemented yet. And the stimulus – or, sorry – not the stimulus. The CARES Act gave money for the Federal Reserve to help support some of their lending, which did allow them to go deeper into some of their facilities than they have historically. So that, in some sense, remains to be seen how far they'll go.

And then there's been a debate. Ever since we've been wrestling with the Zero Lower Bound,² there's been always a debate about things like negative interest rates, price-level targeting. I think these are – have been and are still actively on the table, even though they show reluctance for some of these. But as circumstances change, I can see how they might be moved more in that direction.

MR. RUBENSTEIN: Jason, your view on the Fed? Should they do any more, or do you think they've done enough?

MR. THOMAS: Well, I think that they could expand the eligible collateral to include things like CLOs,³ and then also some sub-investment grade securities. Thus far – after Lehman, the Fed allowed to – eligible collateral to include equities, but then also sub-investment grade securities. As of right now, they have not taken that step. Equities are eligible but not sub-investment grade. So, I think that there's still the potential to expand collateral eligibility.

² Zero Lower Bound is a macroeconomic problem that occurs when the short-term nominal interest rate is at or near zero, causing a liquidity trap and limiting the capacity that the central bank has to stimulate economic growth.

³ CLO - collateralized loan obligation; a single security backed by a pool of debt.

MR. RUBENSTEIN: Now, Ted, speaking of the Fed, at Brookings you have Janet Yellen and Ben Bernanke. Have you – I guess you don't run into the halls with them anymore since they're all working at home, but have you had a chance to talk to either of them? And they have any insights that you can pass along?

MR. GAYER: I've talked – or, I heard from – recently from Ben. He did an interview yesterday, actually, and I've had some interactions with him as well. I don't know that I have any insights to share, other than what I think a lot of people know. Ben, the key takeaway of what he was talking about yesterday was, first, praising Jay Powell and the actions that they've taken. And also, if I had to characterize the shape of the recovery in his – in his eyes, and I would agree with this, much more U-shaped than V-shaped. I think there's some disagreement out there. And a lot of this, as everybody acknowledges, is uncertain and will depend on the effectiveness of our public health response. But as far as how long until we come out of this, I don't – I don't anticipate, nor does he, a kind of quick recovery.

MR. RUBENSTEIN: But for people who are not economists, what is the difference between a V-shaped and a U-shaped?

MR. GAYER: Well, I mean, like your last guest had a board behind her, I need to kind of have a chalkboard here. A V-shaped economy would be we get – well, in this example – would be get an all-clear signal, we're back to work, we haven't lost a lot of intangible capital, our businesses are up and running. So essentially what it is, is we had a drop in GDP and we're back on the trend line that predated the crisis quickly. A U-shape is, as it suggests, it's going to take a lot longer. So that's, like, GDP that we're not going to make up. And until we get back to trend line it could be much further in the distance.

And then, you know, there's the horror store of L-shaped, bathtub-shaped, which is just – hysteresis – [inaudible] – just long-term effects that takes an indefinite amount of time before we actually recover from it.

MR. RUBENSTEIN: But your view is we're in a V-shape, a U-shape, an L-shape, or some other shape?

MR. GAYER: So my view, this is a – you know, every economic forecast you and I could read right now is predicated on public health and the activities of what our treatments are going to be, our ability to – you know, how effective the suppression is now, our ability to be able to test, and trace, and respond accordingly if we happen to have any hot spots. And so – and then ultimately not a vaccine for, you know, easily another year and a half. So, my view of what that looks like – again, caveated that there's a lot of uncertainty there – is it's going to take a while for us to return. That there is a slower adjustment process. Again, not talking Great Depression of 10 years, but not talking by year end that we're back to where we were pre-crisis.

MR. RUBENSTEIN: Now, Jason, let me ask you a question: The federal government passed a bill called the CARES Act, which I think cost roughly \$2.2 trillion. There is discussion of another \$2 trillion stimulus bill. That may or may not happen. But just take the \$2.2 trillion

CARES Act, who's going to buy all this debt? Who are the people that are going to buy this debt at virtually zero percent interest?

MR. THOMAS: Well, first the Federal Reserve in the short term is clearly accommodating this increase in public debt. Its balance sheet could exceed \$10 trillion by the end of the year. We've already seen purchases of over \$1 trillion really in the month of March, in a very compressed period. So, in the short term, it really is the Fed that is helping to accommodate this debt issuance. In the longer-term, I think that it's not going to be the U.S. Treasury that has trouble placing its debt. I think it's going to be some of the emerging market economies. And there could be some crowding out effect. And there's already been 80 economies that have applied for aid from the IMF. The sharp downturn in advanced economies is going to have enormous spillover effects on their economies. And then of course if they have infections there could be additional problems. So, I think that's where to look for some of the issues.

MR. RUBENSTEIN: Well, on the debt, we already had \$22 trillion of federal debt. Now I guess we're going to have \$24 or \$25 trillion. Doesn't that bother you? Or why aren't the markets worried about all this debt?

MR. THOMAS: Well, you know, I think that we saw in the last 10 years a remarkable thing, which was that Japan was able to stabilize its debt ratio at something like 235 percent of GDP. All analysts would never have thought that possible because they would have been sure Japan would have had a fiscal crisis well in advance of reaching that debt level. So, we've seen that because of low interest rates, because of the decline in investment demand relative to desired savings, that there is actually much more fiscal space than we believed was the case 10 years ago.

MR. RUBENSTEIN: Now, Ted, let me ask you about another thing that I used to know a lot about, which was inflation. When I worked in the Carter White House, I got a lot of inflation for the country. We haven't had a lot of inflation, but now surely, we're going to get a lot of inflation with all this borrowing. Or is that not true?

MR. GAYER: Well, you know, I think we – you know, and we saw this during the Great Recession. We had continual anticipatory predictions of inflation that never happened. And in fact, we kept missing the target on the low end. Where we sit right now, I would say we're in a similar position, that the risk of disinflation is higher than inflation. We've got major industries that are just being completely hammered, which will depress prices. Whenever we come out of this, or, as I should say, as we come out of this you would think that spending will still be depressed for a little while. People are going to have lower wealth. They're going to have higher precautionary savings.

So, on that, I agree with you, with increased borrowing there's kind of – there are opposite forces working here. But the historical examples, getting back, again, to Great Recession and even Great Depression, is that you're kind of fighting disinflation more than you're fighting inflation, coming after such a cratering of the economy.

MR. RUBENSTEIN: Now, let me ask you this. One of the measures of the economic growth is productivity. Is there any study that's shown that working on a Zoom or working at home is as productive as working in an office? [Laughter.] And therefore, will GDP really – if everybody's working at home, let's say, is the GDP still going to be as high as it would have otherwise been? Or it's going to be much lower? And what would you say the GDP is likely to be this year?

MR. GAYER: There's a lot of questions. And on the productivity – you know, as you know, there has been a longstanding debate about why productivity growth is so low. There's the kind of Silicon Valley argument that it's just being mis-measured and there's all this digital technology and information that is not being captured. I've always been skeptical of that. I've turned into much more of a "digitalphile," I guess you would say. I don't know that my productivity is still better than it was when I was actually going to the office.

As far as GDP this year, you know, first quarter we're probably looking at – on an annualized basis – a 10 percent reduction. Second quarter's going to be astronomically gawking numbers, maybe a 30 percent decline on an annualized basis. What it is for the year, we'll get back to what I said before. I mean, as most forecasters are looking at a strong – at somewhat of a rebound in the third quarter. But again, it really depends on where we are in the public health response. If you took it all together and you wanted to give an annual, you know, average for 2020 versus last year, it's really with a high degree of uncertainty maybe a 5 percent reduction.

MR. RUBENSTEIN: Jason, you mentioned the emerging markets a moment ago. One of the problems the emerging markets are having is their currencies are declining against the dollar. So, would you expect a lot of emerging market corporate debts? And what about emerging market country debts – not in debts – bankruptcies, I should say, on inability to service the debt, either corporate debt or countrywide debt?

MR. THOMAS: Yeah, I think this is a big concern, something that we should be really very worried about. Argentina, Ecuador, Lebanon are all areas – all countries where we could have sovereign defaults in 2020. The Fed has dollar swap lines with other central banks to try to help fund the corporate sector. But the corporate sector in emerging market economies, for the most part, is funded in dollars. And that's an enormous problem, because their domestic revenues are in local currency, which of course is depreciating relative to their dollar liabilities. So, this is an area that I think is going to create additional problems. And I think it's an area that we need to watch very closely.

MR. RUBENSTEIN: Now, Jason, if the president of the United States were to call you now and say: I got some economic advisors. but I want to check on whether they're good or not. I'd like your advice. What would you advise the president to do economically? One or two things now that he hasn't already done?

MR. THOMAS: Well, I think, to me, the question is not whether we have these non-medical interventions, the question is trying to come up with what is most efficacious in terms of stopping the spread of the disease, while trying to allow for a somewhat – an opening of the economy to some degree. And so, we see – what's very interesting to me is the country of Sweden has actually not pursued a lockdown policy. So, it creates – and this may be a huge

error on their part. A lot of people think it is, of course. But it does provide a control that allows us to measure the infections, deaths, those sorts of things, but then also measure the effect on domestic demand. Schools are open. Daycares are open. Museums are open, and down the line. They do have a limit on gatherings of people. But I think that there's trying to think of not just a total lockdown but think about what specific policies to stop the spread, and then try to come up with an appropriate balance, would be my recommendation.

MR. RUBENSTEIN: Ted, what would you advise the president of the United States if he called you with some questions about what he should be doing?

MR. GAYER: Well, again, as I said before, the key economic question here as far as how we come out of this and what the recovery looks like, is our public health response. And there we need things like massive testing, tracing, the ability to administratively understand where the virus is, in case there's hotspots, and that we can adjust to it. More evidence on the effectiveness of all the different – talked about masks before, whether or not people get immunity.

It's all – the economic issue is we're going to face this moment, it's not like someone rings a bell and we all go back to work. In different ways, we're going to be facing the uncertainty: Do I go to a movie theater? Do I go to my office? Do I go to a restaurant? And the more that I feel like the governance of this country is on top of it, providing information, and actually test, surveilling, and treating as we can, the more confident we'll be for those incremental movements back into the normal economy.

MR. RUBENSTEIN: Now, the Chinese economy seems to be coming back a bit. People are going back to work. Are there any lessons we can take away from what's happening in China with respect to our own economy when we get past this surge period of time? Ted?

MR. GAYER: I'm going to let Jason – go ahead, Jason.

MR. RUBENSTEIN: OK, Jason?

MR. THOMAS: Sure. Well, I would just say, from our own perspective, what we've seen in China, I know people are very skeptical of the public data. But just from – we have a portfolio – we have about 4,000 retail establishments. Ninety-five percent of them were open at the end of March. We also have logistics businesses, port, data – things are still, you know, down 10 percent, 15 percent relative to March 2019. But, you know, the capacity has gone from effectively zero, during a large stretch of January and February, back up to, say, 80-85 percent. So, it's an impressive recovery in that sense. But one of the points that I would emphasize in terms of looking forward; Ted talked about a U-shaped recovery. And I think that that is absolutely what everyone should be expecting, because even when the economy reopens, as it has in China, you still have quite a lot of risk aversion that's evident on the part of households and businesses.

The psychological shock from this crisis does not wear away very quickly. And so, when we look at things that we have access to, like salon visits and auto purchases, travel, tourism, lodging – they're all down at least 40 to 50 percent year over year, even with the economy open.

So, I think we should temper our expectations for how quickly households and businesses are willing to resume pre-crisis spending and investment levels.

MR. RUBENSTEIN: Ted, let me ask you about energy prices for a moment. Energy prices are low, therefore gasoline prices at the pump are low. Why shouldn't we be happy with that? And why shouldn't the president of the United States be excited that we have such low gasoline prices? Why are we upset about this?

MR. GAYER: Well, first of all, you used gasoline prices in particular. I filled up both my cars before I went and started sheltering in place. They are now still on full. This is the first time I've gone a month without having to refill. So, it doesn't do much good to have low gasoline prices if I'm not driving anywhere, I would add. And then just more importantly, you know, there's obviously a demand side and a supply side. Again, if you look at the Great Recession, some states weathered that storm better because of the strength of our oil industry in this country. It is a source of jobs. It's a source of investment. And it's importantly a source of state revenue as well.

So certainly, there's some downsides. And I'm sure Jason could speak to this. The collapse of the oil energy markets has been remarkable. And again, whenever you have such sharp changes there's the broader geopolitical issues of what turmoil this might cause in oil exporting countries, what turbulence it could cause in financial markets. So as much as I like supply shifts that lower price of various commodities and goods, when you have a sharp demand collapse it really comes with some disconcerting concerns.

MR. RUBENSTEIN: So, let me ask you each, a final question. Economists are not famous for being optimists, I would say. But let's suppose, Ted, your job was to convince one of your children that the world is not falling apart. What would you say to somebody, like one of your children or somebody else, why there is light at the end of the tunnel and why they should feel it's not a terrible situation?

MR. GAYER: Well, so, first, when I talk to my children, I like to emphasize there are a lot of beautiful things in the world. It's not just about the economy. And I should say, when I hang up on this call, I'm going to prepare for my Zoom Seder, where we'll be talking about a lot of these themes as well. But as far as the sort of optimism on the economy, I would say this is – you know, as we've alluded to, been just a sharp, sharp collapse in many ways, a hitting of the brakes of our economy deliberately. But I feel it's going to take a little while but, you know, we will get out of this. We will get out of this. The economy will look different. We might do things like be – as was the Great Depression – much more savers than we were before, other kind of responses to future pandemics and preparing for it. But by and large, I think when it comes to kind of our economic wellbeing probably a year and a half from now, two years from now, I think we'll be back, and we'll be good.

MR. RUBENSTEIN: OK. Jason, what will you tell your children that's optimistic, that they can feel good about something?

MR. THOMAS: No, I agree with Ted. I think we have to get the epidemiological or public health data have to improve sustainable. And, second, we need government policy actions to slowly reopen the economy and find the appropriate mix of public health measures and economic opening. And then third, we'll observe a gradual return to normal in terms of both consumer and business behavior. So, we have a clear roadmap ahead. I think that we're going – there's going to be a recovery on the other end of it. And it's just a question of timing with that sequence.

MR. RUBENSTEIN: OK. Jason and Ted, thank you very much. I'm going to finish now. And I want to thank you for giving us your time, and your insights, and your optimism at the end.

So, for all the people who are now watching this, I just would like to conclude by saying that we will put this – these interviews today on our website. So hopefully if you want to watch it again or let people know about it, they can do so. Remind you, we will have another program next Friday. We'll announce very shortly who's going to be on that. And then on April the 28th, we will have Tony Fauci on that day. And you know, I think everybody will be looking forward to that. I think that should be a quite interesting show with Dr. Fauci.

So, let me wrap up here. And thank you all for tuning in. And if you have any questions or comments, you can let Mary Brady know and we'll try to improve what we're doing now to make sure that you were getting as much information as we can provide to you at The Economic Club of Washington. Thank you all.



Adena T. Friedman
President and CEO
Nasdaq, Inc.

Adena Friedman became President and Chief Executive Officer of Nasdaq on January 1, 2017 and is a member of the Board of Directors. She brings more than 20 years of industry leadership and expertise and is credited with significantly shaping Nasdaq's transformation into a leading global exchange and technology solutions company with operations across six continents.

Prior to being named CEO, Adena served as President and Chief Operating Officer 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.

She rejoined Nasdaq in 2014, after serving as Chief Financial Officer and Managing Director of The Carlyle Group from March 2011 to June 2014 and playing a critical role in taking the company public in May 2012.

Before Carlyle, Adena 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 and Chief Financial Officer. She played an instrumental role in Nasdaq's acquisition strategy, overseeing the acquisitions of INET, OMX, and the Philadelphia and Boston Exchanges. She originally joined Nasdaq in 1993 as an intern.

Adena has served as a Class B director to the Federal Reserve Bank of New York since December 2018. She was elected to the Board of Directors of FCLTGlobal, a nonprofit organization that researches tools that encourage long-term investing, in January 2020.

Adena earned a Master of Business Administration from Owen Graduate School of Management, Vanderbilt University, in Nashville, Tennessee. She holds a Bachelor of Arts in political science from Williams College in Massachusetts.



Kurt Newman, M.D.
President and CEO
Children's National Health System

Kurt Newman, M.D., is a surgeon and recognized leader in pediatric health nationally and in Washington, D.C.

Since becoming CEO in 2011, he has fostered a culture of patient-centered care and championed innovations in research, operations and clinical care. He has forged productive partnerships with other health systems in the region, with government and community entities and with industry at the local, national and global level. He is also a strong advocate for expanding mental health access for kids and has led two national forums on this issue.

Dr. Newman joined Children's National as a surgical fellow in 1984 and became Surgeon-in-Chief and Senior Vice President for the Joseph E. Robert, Jr., Center for Surgical Care in 2003. He was instrumental in developing the vision for the Sheikh Zayed Institute for Pediatric Surgical Innovation at Children's National, inspired by the bold vision of making surgery for children minimally invasive and pain-free. When the Institute was created in 2009 through a transformational \$150 million gift, Dr. Newman served as founding Vice President.

Currently, Dr. Newman serves as the chairman of the Children's Hospital Association Board of Trustees and previously served as the Chair of the Committee on Advocacy and Policy. He is also a member of the board of directors for the District of Columbia Hospital Association. In addition, Dr. Newman serves on the board of the Economic Club of Washington, Greater Washington Board of Trade, Federal City Council, D.C. Chamber of Commerce and Fight for Children. Previously, he served as a board member of commissioners of the Joint Commission, a member of the Board of Governors of the American Pediatric Surgical Association, as Chair of the Surgery Section of the American Academy of Pediatrics, and on the Commonwealth Council on Childhood Success in Virginia.

Dr. Newman is a professor of surgery and pediatrics at the George Washington University School of Medicine and Health Sciences. He is a graduate of the University of North Carolina at Chapel Hill and received his medical education at Duke University. He completed his surgical residency at the Brigham and Women's Hospital and also served as the Arthur Tracy Cabot Fellow at Harvard Medical School.

In 2017, Dr. Newman's medical memoir, "Healing Children: A Surgeon's Stories from the Frontiers of Pediatric Medicine," debuted as an Amazon bestseller in pediatrics and earned national attention and critical praise in The New York Times Book Review, The Washington Post and Harvard Business Review.



Ted Gayer
Executive Vice President
Senior Fellow for Economic Studies
Brookings Institution

Ted Gayer assumed the position of Executive Vice President of Brookings in April 2018 after five years as Vice President and Director of the Economic Studies program. From 2009-2013, he was Co-Director of the Economic Studies program.

In addition to his management activities, Gayer conducts research on a variety of economic issues, with a particular focus on public finance, environmental and energy economics, housing, and regulatory policy. He has published dozens of academic journal articles and speaks regularly on the economic outlook and economic policies to various audiences and to the local and national media.

Gayer's background includes extensive experience in academia, government, and public policy organizations. Prior to joining Brookings in 2009, he was associate professor of public policy at Georgetown University. From 2007 to 2008, he was deputy assistant secretary for Economic Policy at the Department of the Treasury. While at Treasury, he worked primarily on housing and credit market policies, as well as on energy and environmental issues, health care, Social Security and Medicare.

From 2003 to 2004, he was a senior economist at the President's Council of Economic Advisers, where he worked on environmental and energy policies. From 2006 to 2007, he was a visiting fellow at the Public Policy Institute of California, and from 2004 to 2006 he was a visiting scholar at the American Enterprise Institute.

Jason Thomas



Managing Director Head of Global Research The Carlyle Group

Jason Thomas is a Managing Director and Head of Global Research at The Carlyle Group, focusing on economic and statistical analysis of Carlyle portfolio data, asset prices and broader trends in the global economy. He is based in Washington, DC.

Mr. Thomas serves as Economic Adviser to the firm's corporate Private Equity, Real Estate and Credit Investment Committees. His research helps to identify new investment opportunities, advance strategic initiatives and corporate development, and support Carlyle investors.

Prior to joining Carlyle, Mr. Thomas was Vice President, Research at the Private Equity Council. Prior to that, he served on the White House staff as Special Assistant to the President and Director for Policy Development at the National Economic Council. In this capacity, Mr. Thomas served as primary adviser to the President for public finance.

Mr. Thomas received a BA from Claremont McKenna College and an MS and PhD in finance from George Washington University, where he studied as a Bank of America Foundation, Leo and Lillian Goodwin Foundation, and School of Business Fellow.

Mr. Thomas has earned the chartered financial analyst designation and is a Financial Risk Manager certified by the Global Association of Risk Professionals.

