



The Economic Club of New York

113<sup>th</sup> Year  
522<sup>nd</sup> meeting

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Kenneth C. Griffin  
Founder and Chief Executive Officer  
Co-Chief Investment Officer  
Citadel LLC

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Moderator: John E. Waldron  
President and Chief Operating Officer  
Goldman Sachs

## Introduction

President Barbara Van Allen

Good afternoon and welcome to the 522<sup>nd</sup> meeting of The Economic Club of New York in its 113<sup>th</sup> year. I'm Barbara Van Allen, President of the Club. The Economic Club is the nation's leading nonpartisan forum for discussions on economic, social, and political issues. More than 1,000 prominent guest speakers have appeared before the Club over the last century and established a strong tradition of excellence.

I'd like to take a moment to recognize those of our 307 members of the Centennial Society attending today who are seated in the front of the room as their contributions continue to be the financial backbone of support for the Club. They enable us actually to offer our wonderful, diverse programming now and into the future.

We'd also like to welcome attending members of our 2020 Class of ECNY Fellows, a select cohort of next-generation thought leaders sponsored by members of the Club for our year-long program. The program is actually now in its fourth year. We went from 20 the first year to 30 the second to 34 the third. This year we have 47 fellows.

It's a pleasure actually for me now to move into the introduction of our special guest today. Founder and Chief Executive of Citadel, Ken Griffin. Since its founding in 1990,

Citadel's recognized as one of the most respected and successful investment firms in the world. They manage \$33 billion in capital for its partners. Ken is also a passionate philanthropist, supporting educational and cultural causes that drive community engagement and improvement. He's given very generously to numerous organizations including the University of Chicago, the Ann & Robert Lurie Children's Hospital, The Field Museum of Natural History, the Art Institute of Chicago, the Museum of Modern Art, and the American Museum of Natural History.

As a real leader within the Chicago community, Ken actively participates in civic and cultural institutions, serving on the Board of Directors of the Chicago Public Education Fund, the Board of Trustees of the Art Institute of Chicago, the Museum of Contemporary Art in Chicago, the Whitney Museum of American Art and, of course, The University of Chicago.

He's a member of numerous business organizations, including the G100, the Civic Committee of the Commercial Club of Chicago and, of course, our sister, the Economic Club of Chicago. Lastly, Ken is a proud alumnus of Harvard University.

The format today is a conversation. We're very fortunate to have with us John Waldron, President and Chief Operating Officer of Goldman Sachs, doing the honors for us. As a reminder, the conversation is on the record. I'd like to now invite you both to come up on

the stage and begin the conversation. (Applause)

Conversation with Kenneth C. Griffin, Chief Executive Officer, Citadel LLC

JOHN WALDRON: Thank you, Barbara, very much for that introduction. I'm trying to figure out how you have time to run your firm. You have this incredibly active life. And I have to say, as a relatively new leader at Goldman Sachs, as I've gotten to know Ken, your energy, your passion for business – but for so many things in the world – is palpable. And Ken and I recently spent some time together in China. So I want to get into the conversation about Citadel because Citadel is an incredible story. And, you know, I think Ken gets publicity and press but I'm not sure the Citadel story is as well understood as it could be. So we're going to spend some time with that. But before we do, I want to talk about some of the major issues in the world. And, as I said, we spent time together in China and we've shared thoughts on the China issue, you know, in China and back in the United States. And so I thought it would be a good place to start because it's obviously a very topical issue of the day and, you know, Ken's a very thoughtful guy on a lot of topics but particularly on this topic. So what I might do is start there and just ask you your overall perspective on what President Trump is doing. Let's just start at a high level. He came into office, he had a pretty clear message and articulation of what he thought about China as an adversary of the United States, which I think was a different set of narrative and tone than we had heard. You know, everyone

thinks they're tough on China, but he seemed to come in a little tougher and a little more focused on it. So maybe just observe kind of how you thought about him coming in with that message and how you think about the overall relationship with China. We'll get into some of the details.

KENNETH C. GRIFFIN: It sounds great. It sounds great. So, first of all, John, thank you so much for being here today. And, as you said, we really spent time together in China on the issues of opening up bilateral trade between our two countries and services between our two countries. How can American firms be successful in their financial markets? America is a world leader in financial services. You obviously run one of the world's leading financial institutions. And then, of course, the Chinese want to have the ability to compete – newest financial markets. That was the context of how we got to spend time together in China. It was an incredible two days that we spent together. Donald Trump, President Trump came to office with a very different mindset about trade. And, in particular, he was acutely aware that globalization has had some significant adverse consequences for millions of Americans. What we've learned over time is that the ability of smaller towns, one or two flagship or cornerstone manufacturing concerns, when those businesses were shuttered as we moved production to China and other destinations offshore, the communities didn't get back on their feet. They didn't recover. And so although globalization has unequivocally been good for the world as a whole – it's been good for probably everybody in this room – it

came with a dear price to the Midwest of the United States, some of the towns in the Northeast, just a real devastating cost. And the president wanted to put the U.S. on a different footing with our trading partners around the world to try to bring manufacturing back to America and he's passionate and sincere about that. And, of course, China being the greatest destination of jobs abroad in terms of manufacturing, very high on the list. But as you and I spoke about in China, and this is an interesting side note, the first big trade war was not with China under our president. It was with Mexico. And it's already been forgotten that it was right out of the gate. The President went after NAFTA, went after Mexico and ultimately secured the recently passed new trade deal to change the terms of trade between the U.S., Canada, and Mexico. So Mexico was actually the first really big move on the chessboard, China the second big move on the chessboard.

JOHN WALDRON: So as you think about the relationship with China, you know, you and I deal in the financial sector primarily, so I want to talk about financial sector reform and liberalization which is a lot of the conversation we were having when we were together. But if you put it in broader terms, where do you think – obviously we have this Phase I agreement, which when you and I were there was kind of on-the-come, not quite done, and there was a lot of debate about whether it was a good or bad thing. Now we have it. How do you think about kind of where we sit today, how the policy of the United States is being deployed? Is it successful? Do you think we keep going, you know, stronger, deeper, tougher with the China response? Just try to paint your picture

as to how you think the chessboard is going to play out in this discussion.

KENNETH C. GRIFFIN: So I'd love to have your perspectives on this after I chat for a second. I think one of the greatest challenges that we have is the Chinese have changed their mindset towards our relationship between our two countries as being much more adversarial. And I think that actually comes with a fairly significant cost. So the rhetoric in Washington, the spillover effect vis-a-vis China has been very toxic. And, in particular, the attacks on Huawei. So toxic that if you think about China today, they are rapidly racing to eliminate every single dependency that they have on American technology. We have demonstrated our willingness to use a variety of export and other controls to literally try to bring down one of the greatest companies in China. And then as a shot across the bow, that across the entire country has been recast as never depend on America for technology. I think that is the greatest cost of this trade war is we're now going to see a bifurcated stack – the United States and certain of our allies having one set of technology solutions, China and its allies having a second. And of particular frustration to me is the sense that I have in Washington, DC, this sense of American supremacy in this realm, the Chinese will never catch us. And I think that is a completely false sense of security. The Chinese graduate about as many engineers a year as we have in our country as a whole. They are extraordinarily good at physics, at mathematics, at the underpinnings of what drives a digital economy. And this idea that we will maintain a sense of technological superiority over them is simply misplaced.

Compounding the problem, where are some of the most advanced chips in the world made today? They're made in Taiwan. If Taiwan has to pick a country in whose orbit they will be in economically, we know where that's going to fall. Korea is also one of the great manufacturers of basic hardware today in the world. Again, if Korea has to pick an orbit into which they will fall, we know which way that falls. So the first round of the trade war, we made some real progress in services. We made real progress in the Chinese commitment to purchase American goods such as agricultural products. But I think at the same time, by making this into such an adversarial relationship, we've taken a real setback in the ability for the United States to continue to maintain its literally unparalleled position as the world's provider of technology. That, we put at risk.

JOHN WALDRON: I mean it is stark, I mean just a little bit of an anecdote, Ken and I were in this meeting that was kind of a financial services roundtable meeting talking about financial services topics. And this was before the Phase I deal was announced and done. But when you listened to the Chinese side talk about their ambition and their perspective on what they are trying to achieve, which was much broader than financial services, I think the point that Ken is trying to make which I would echo is the desire to control and dominate industries and not have any reliance, really on the outside world but particularly on the United States, is palpable when you're over there and you're meeting in these discussions. So, I don't know how well, I think that might be pretty well understood in some of the American administration, but I don't know how well



understood that is in the broader, you know, the broader U.S. fabric. So I think you can get lulled into, well, we can make some progress, but there is a – whether it's full decoupling or it's a partial decoupling – there is a moment coming particularly around technology, I think, as you point out, whether it's 5G or AI or blockchain or other technologies, there's a moment coming where you could end up with two systems.

KENNETH C. GRIFFIN: Yes, and in fact we're going to end up with two systems. And I agree with you, in the room, which was the Chinese financial services leadership and a number of the American financial service leaders, the commentary from the Chinese side would allude to the advantages of scale. And all of us take for granted, we grew up in our lifetime with the U.S. being the biggest economy in the world. And so no matter where you were in the world, you wanted to sell your goods and services in the United States. And every U.S. manufacturer, if they could win in America, they could win globally because if you could win in the scale economy, you had the huge advantage. They have 1.4 billion people.

JOHN WALDRON: Yes, they've got a lot of scale.

KENNETH C. GRIFFIN: They've got a lot of scale, and they know it.

JOHN WALDRON: So you mentioned Huawei. I just want to push on Huawei a little bit

because, like you, I think that was a pretty seminal shot across the bow and I think it was felt that way on the Chinese side. We recently saw the U.K., you know, kind of acknowledge that they don't really have a lot of other good choices and so they are kind of letting Huawei build a part of their 5G infrastructure. And in my conversations with Telecom executives over there, I think they acknowledge trepidation, but don't see a lot of options and so they're kind of moving forward. And they're trying to say it's not the sensitive parts of the network. I'm not sure how exactly that works because a network's a network. But do you have an observation on kind of where this goes with Huawei, just general observations on it, and what are the other alternatives?

KENNETH C. GRIFFIN: So there's a great irony here which is that the Europeans are one of the great providers of cellular network technology.

JOHN WALDRON: One of the places in the world where they lead actually.

KENNETH C. GRIFFIN: They lead. And they have not been found at the table to support us on this issue with Huawei. So we end up in a very interesting spot which is the United States, in taking on Huawei out of national security and other issues, has not met the support of our traditional allies. They have left us at the altar. And I think that's a really telling story about the shifting power dynamic between the U.S. and China globally. When the Europeans are willing to – in a sense – move closer to China and

away from America, that's a very telling story about the shift of power in the world.

JOHN WALDRON: Let's talk about the financial sector where you and I, that was the purpose for our being there in the first place. But to me, I'm going to pose it this way, you tell me if you agree. Technology is a clear area where there's obviously going to be some decoupling, if not full decoupling. The financial sector, which interestingly is one of the first industries that's in the Phase I deal where they're actually, the Chinese are practically saying we're going to do some things to open up. And we have to see how much of that actually comes to fruition.

KENNETH C. GRIFFIN: Fair to say, though, on paper their commitment to the United States is pretty incredible.

JOHN WALDRON: It is. So, unlike in the raw technology world, in financial services, which admittedly has some technology aspects to it which we'll talk about, they seem to be more willing to open up, maybe out of self-interest, but there is reform and liberalization that's already been underway and seems to be accelerating. Do you have a perspective on that and why that's the case?

KENNETH C. GRIFFIN: I think that the Chinese are acutely aware that the United States firms have been the world leaders in financial services. I mean if you just look at

post-great financial crisis of 2008, in almost every country with a developed economy, the major players at the table are disproportionately American. And the Chinese have an understanding that over the next 50 years, they need to rapidly develop their capital markets. Not just the size of the market, but the efficiency of the market. You know, if you look at the United States and contrast it with Europe over the past decade, in my opinion, the fact that the United States, corporate America funds itself in the capital markets is a huge part of the resiliency of our economy. We are extremely good at getting capital into the hands of the right corporate leadership teams, the right entrepreneurs, the right opportunities, and pushing our economy forward. Europe is still dominated by its banks as the provider of a huge proportion of their capital base. So in the United States roughly four-fifths of the debt markets are bonds that are issued into the capital markets.

JOHN WALDRON: Securitize on some basis...

KENNETH C. GRIFFIN: Securitize in one way or another. Whereas in Europe, four-fifths of the debt is provided directly by the banks. And if you think about these two economies and how they allocate capital, and you think about the insights and the research that we do in the United States amongst our money managers and our investment community, compare and contrast that with decisions made within the bowels of these very large retail banks in Europe, who is going to make the better

capital allocation decisions? And I think China understands that and China wants to rapidly modernize its capital markets. So you and I both know they've been dealing with – over the last couple of years – a variety of wealth management products that are very opaque. It's very unclear as to what they're funding, what that value creation from that is, and that makes them scared. And by bringing in Western know-how on capital allocation on investing, they will do a much better job of growing their economy in the long run.

JOHN WALDRON: Yes. I couldn't agree more. And I think what will be interesting is whether what they're really doing in the long run plan is to rent, you know, rent that technology and capability and then, you know, kind of change the rules later. But that story will be for later down the road. I think most – if not all – the big American firms are going to find a way to get in there and get in there big and try to ride the reform wave and it'll be interesting to see how that plays out competitively vis-a-vis the local financial players.

KENNETH C. GRIFFIN: There's no doubt, and I agree with you 110%, they're going to rent our know-how one way or another. And the only question is how much do they let us keep of that 25 and 50-year...

JOHN WALDRON: Of that rental income.

KENNETH C. GRIFFIN: Yes, because they are great entrepreneurs. I mean they really are phenomenal entrepreneurs.

JOHN WALDRON: Do you have, and this maybe is a little bit of a Citadel question, but if you think about the opportunity set in China for a financial services organization, you know, a banking or markets-oriented financial services organization, do you see it as intermediating the provision of capital in a traditional market sense? Do you see it as more asset management products? Do you see it as more wealth management? Do you have a sense for how you think that evolves? Or do you think it's kind of a combination of all of those as the market continues to evolve and mature?

KENNETH C. GRIFFIN: So, for us it's going to be a combination of all those, but principally it's going to be around risk intermediation within the capital markets. That's what we have been most successful at in Asia is that type of work, as a market makers liquidity provider. That will be our principal focus in China. But there's no doubt that we're going to see all the major American wealth managers rapidly increase their scale in China as they open their markets to participation from firms like BlackRock in a much bigger way, Fidelity in much bigger way. It's going to be a big opportunity for American wealth management firms.

JOHN WALDRON: I agree. I think you're going to see a number of ventures that get

announced publicly of American asset managers and local, we call them distribution vehicles, whether they're banks or other insurance vehicles. And they'll be, and I think the Chinese are going to facilitate these JVs to enable product from America and, let's say global product, but typically American product that comes in and meets the distribution vehicle of the Chinese on-the-ground capability because none of us have that. And that will be, I think, a way that they'll try to forge ahead to create some Western product that can get into the market.

KENNETH C. GRIFFIN: And then you're going to see the BlackRocks and the Citadels and the Blackstones, the Fidelity, putting together real teams in China of investment professionals. And what gets misunderstood is how much of the business of finance is an apprenticeship business. Mentorship is so important in terms of how we develop talent – the time that a portfolio manager spends teaching an analyst, the analyst spends teaching an associate. These are really important ways of learning. You don't learn how to be an investor at Harvard Business School. You learn the theory, but the practice is quite different. And so the Chinese will benefit from that American and European know-how going to China teaching PMs, teaching analysts, teaching associates. It will rapidly accelerate the efficiency of their market.

JOHN WALDRON: I agree. So let's just, let's pivot to the other side of the Chinese relationship which is the U.S. Observations on the U.S. economy, observations on, you

know, you talked about the Midwest and some of the hollowing out of the Midwest, you know, observations on the manufacturing side of the economy versus the consumer side of the economy. I'm just interested in your perspective as you invest, you know, and put money to work, how you think about the domestic economy and whether it's accelerating, decelerating, or what the prospects are.

KENNETH C. GRIFFIN: So the economy is, let's go through some really important big picture numbers. Unemployment rate right around 3 ½%. So we're right around 50-year lows in unemployment. We are making meaningful progress in bringing more people into the workforce who have been out of the workforce for the last decade. And that is a huge accomplishment of the policies that have come from Washington over the last couple of years. It's increasing the number of people who had left the workforce, disenfranchised, coming back to work. And contrary to what you read in the press; we're seeing the greatest wage gains in those who have economically been most disadvantaged over the last decade. So it's really good to see that not only is this rising tide lifting all boats, but it is lifting most quickly the boats of those who have been most disadvantaged. That's really good to see. And I think we should hold on to that dearly because if we're going to keep our country being one of free markets and free enterprise, we need to counter the Socialist rhetoric that we see far too often in this election cycle. I mean it's almost hard for probably the two of us to believe that we're talking about candidates running as being "Socialist." But that is a reality in the United



States that is almost unimaginable. And so the policies that we're seeing today which are bringing more people into the workforce, raising the standard of living for Americans, those are good policies. There are challenges that go with these policies. We have a set of tax policies that are probably not sustainable. We have too much debt at the federal level that we're going to need to address, frankly in the relatively foreseeable future given the growth in entitlements.

JOHN WALDRON: Are you surprised, by the way, just think about the...we've only had the Democratic side of the debate so far, we haven't really had a Republican side of the debate vis-a-vis a real election, general election, but are you surprised that the debt and the balance sheet of the country is not really featured in the debates, featured in the narrative, featured in any of the discussions? It seems to be kind of not, you know, not at all in the frame.

KENNETH C. GRIFFIN: So, you know, I'll put this back to you. Goldman Sachs advises sovereign issues around the world. How much do people actually talk about the amount of debt they have outstanding today?

JOHN WALDRON: Unless we go in there and make it a real topic of conversation, it's not, I mean I think it must be because interest rates are so low and, in many cases, negative that it just seems like, you know, modern monetary theory reigns. Just more of

it is better, right?

KENNETH C. GRIFFIN: It's just amazing that we've lost sight of the Reagan economics or Clinton. I mean President Clinton, there's a photograph in former Mayor Emanuel's office, President Clinton signing a balanced budget. A balanced budget – like the United States actually had a balanced budget. And we've lost this in just 30-some years now. So the amount of focus on the unsustainable amount of sovereign debt around the world is shocking to me. I think it rears its ugly head when Italy hits the wall. Greece wasn't big enough to really shake the foundations of the global economy.

JOHN WALDRON: Italy's plenty big.

KENNETH C. GRIFFIN: Italy's plenty big.

JOHN WALDRON: Do you have a perspective on rate policy as you sit here and think about where we are today, given the underlying economic, I mean you paint a pretty good picture and, yes, I would agree with it. I mean the unemployment picture is, by all accounts, pretty strong. You know we could debate how strong the underlying manufacturing part of the economy is right now, but it does seem to be getting a little stronger, you know, in the last handful of weeks. But do you have a perspective on whether the Fed has it right, whether rate policy is kind of in the right place given where

we are?

KENNETH C. GRIFFIN: So, you know, the Fed Chairman has been in a no-win job for the last year and change and I will tell you Kudos to the entire team at the Fed over the last, frankly twelve years. They have gotten us through the great financial crisis. We can debate the merits of some of the policies ex-post with perfect hindsight. They didn't have that when they made the decisions. What the Fed is very focused on, shockingly focused on, inflation is not at target. And when inflation is running 1.6 or 1.7 or 1.8, they feel like they're losing their credibility with the markets. I'm not sure who they're worried they're having that issue with. I, as a large market participant, don't go, like wow we hit 1.8 inflation, the Fed blew it. But they are very fixated on the fact that they're 20 basis points or 30 basis points below target.

JOHN WALDRON: Two percent seems to have been like a magic number for a long time, irrespective of what's going on around it. What I don't understand about it is why 2%? Why not 1½%?

KENNETH C. GRIFFIN: There's a whole bunch of theories as to why two is a healthy number. You don't want prices increasing so fast that you have the costs associated with that.

JOHN WALDRON: 1½% to close to deflation, I guess?

KENNETH C. GRIFFIN: 1½ is too close to deflation. And the problem is in a levered economy, deflation is infinitely more difficult than inflation to navigate through. Right? So in a levered economy where people have mortgages on their homes or companies have borrowed money secured by plant property and equipment, if those asset values fall, now the banks are unsecured lenders on part of their debt. If they go to foreclose, there's all the deadweight loss that goes with bankruptcy. There's a huge amount of cost that go with deflation in a levered economy.

JOHN WALDRON: That's the asymmetric risk they're managing against.

KENNETH C. GRIFFIN: Yes, and it's a very different risk than we had in, for example, 1880. So the U.S. would have periods of inflation in the 1800s that were -5% but life went on because there was no leverage in the system. In a levered economy, that doesn't work.

JOHN WALDRON: Okay. Other macro risks? You mentioned sovereign debt, which around the tables at Goldman Sachs is the thing that we probably stress out, other than maybe cyber-security that we stress out the most about. But other macro risks you think that are maybe less identified or less focused on in the marketplace?

KENNETH C. GRIFFIN: Well, the market, so without trying to go back to inflation too much, if there were inflation, the markets are utterly and completely unprepared for that.

JOHN WALDRON: Yes, I agree with that.

KENNETH C. GRIFFIN: Okay, so if we just wake up tomorrow and inflation in Europe is 5%, Italy's bankrupt immediately, which would be – interestingly enough – hugely deflationary. Okay. And in the United States there's absolutely no preparedness for an inflationary environment. The only reason I bring this up is we have gone, we run a very large fixed-income portfolio and we pulled the Fed Minutes six months before the first rate hike and other rate hike cycles. We pulled these years ago. That's another story unto itself. They all read the same way. No signs of inflationary pressure. And then six months later, a rate hike cycle starts because of inflation. So the reason I share the story with you is it's very unclear what starts or what unleashes inflation – the genie from the bottle. And it's clear that even our most well-informed policymakers – and I do believe the Fed does phenomenally good research on economic policy – don't see it coming either.

JOHN WALDRON: And don't know what to look for. There's no KPIs to say, oh, here comes the inflation.

KENNETH C. GRIFFIN: Exactly. That's exactly right.

JOHN WALDRON: So I've been in your office. I've seen the risk room, the risk board. You guys are acutely – we think we're good risk managers – I mean you guys are acutely focused on risk. What other factors that you're kind of looking at, you know, around risk in the world that, you know, could change the dynamic we see in the markets today? Is it geopolitical?

KENNETH C. GRIFFIN: The geopolitical risk, that sort of momentary calming of the trade war with China has been hugely helpful to financial market confidence. That has been just hugely helpful because that had the potential for being very catastrophic. The emerging coronavirus in China today is probably the most concrete short-run risk we see in the financial markets globally. It's not a Chinese health crisis. It is a global health crisis. And it is a global health crisis because this virus will spread undetected across borders in people who are virtually asymptomatic and it will be a challenge for the world to navigate this over the course of the next several months. The Chinese have obviously resorted to extraordinarily aggressive quarantine procedures to try to contain this disease in a limited footprint within China. They appreciate the challenge that this creates for their country and for the world and their leadership has really, really tried to move resources aggressively the last few weeks to deal with this issue. But why is this an economic issue of such importance? We are unfortunately severing supply chains

again. So in the trade war we were severing supply chains with tariffs and now we're severing supply chains because you can't ship goods and services across borders. Pilots don't want to be flying to areas in China to pick up much needed electronic equipment to bring back to the United States and vice versa. And so, for example, there's a question, you know, the Chinese, will they be able to meet their purchase commitments under the trade deal? I hope the administration takes the high road here and understands the Chinese are grappling with what is the tip of the spear of a global health crisis and we make good thoughtful decisions on how to navigate that.

JOHN WALDRON: That's well said. I agree. Alright, I just want to talk a bit about the financial markets because there's been a lot of change in the financial markets. One major change – and you guys are huge players in all the markets but in equities, huge players in equities – one major change has been this shift from active, the active management of equity dollars, capital, to passive management, which has been a pretty overwhelming shift and it plays out in ETFs and other forms. There's been more systematic and algorithmic investing. You guys have ridden that wave, I think, quite successfully. But just talk about what's driving it, is it kind of inexorable? Is it a moment in time? Just interested in your perspective on that.

KENNETH C. GRIFFIN: So the underpinning of passive investing is it's very difficult for humans to outperform the market. What are going to be the best-performing S&P stocks

this year? It turns out that that is really, really hard for people to get right and we have 50 years of data that shows that to be the case. And so rather than paying for active management, there was this realization – firms like DFA, Dimensional Fund Advisors, an early pioneer – there was a realization that indexing, just I'll buy the stocks that define the S&P500 and the weights they are in the index. And I'm not going to try to outperform the market, I'm just going to equal the performance of the market but charge nothing to do that, to speak of, is a reasonable investment strategy. And it's been embraced by endowments, foundations, pension plans. sovereign wealth funds. All over the world, a portion of their portfolios are now completely passive in nature, indexed to one index or another. In this belief or recognition, it's very hard to find money managers who can outperform the market over time. Who was it? Peter Lynch was the name of our youth, right?

JOHN WALDRON: Yes, Peter Lynch. Bill Miller at Legg Mason.

KENNETH C. GRIFFIN: Bill Miller, Legg Mason. I mean we know these names from 30 years ago because they were the outliers. Right? Being able to beat the market.

JOHN WALDRON: The Hall of Famers.

KENNETH C. GRIFFIN: The Hall of Famers. These are real outliers. And what this has



done is this has led to now roughly a third of all equities are owned by passive players. Now ironically, this is predicated on markets being efficient. And markets are maintained in their efficiency by active managers. So if we went to a world of 100% passive investing, who sets price? Who decides what companies are worth? It doesn't work. It breaks down of its own weight. And so the question is, is what is the tipping point between the proportion of the market that can be owned passively and the proportion of the market that needs to be controlled by active managers. That is, unfortunately it's almost like an economic science experiment that we are playing in real time. And I'm not saying this to say we shouldn't have passive. Like that's not my point at all.

JOHN WALDRON: No, I mean it serves a purpose. It serves a good purpose.

KENNETH C. GRIFFIN: It serves a great purpose. It's been incredibly successful.

JOHN WALDRON: Kind of market exposure at very little price, very little cost.

KENNETH C. GRIFFIN: Yes, which has reduced the cost of all asset managers. Right? Which is good for retirees, it's good for pension plans, it's good for everybody who depends on the capital markets in one form or another.

JOHN WALDRON: Well, let me ask you another question on passive and a little bit

around electronification because one of the things that's happened is there's more passive, there's also the provision of liquidity has become much more electronic, particularly in equities, which has also driven down costs and driven down, you know the cost of execution goes down, the ability to pass that through to customers ultimately is helpful to the democratization – if you will – of putting capital to work. Less so in fixed income. One of our premises at Goldman Sachs is that there will be more electronification in fixed income. I don't know if you have a view on that. But I'm interested in your perspective because we're real-time wrestling with the notion of can you electronify the fixed income markets which are, you know, a little less commoditized and screen-based, or historically have been, than with equities. But I'm interested if you have a perspective on that.

KENNETH C. GRIFFIN: So I'm going to go ahead and just go on a limb. What did you and I speak about just before we came up here? We spoke about the hires that you made at Goldman Sachs to take your technology to the next level. We spoke about key people on the technology side that our two firms have pursued. Right? So the two of us who run two of the largest financial services firms in the country...

JOHN WALDRON: Hiring a lot of engineers.

KENNETH C. GRIFFIN: Hiring engineers. And talking about just that 25 minutes ago.

Right? So that tells you how important technology is in the financial services landscape today. And I think both of our firms take great pride in the quality of the teams that we have and our commitment to the modernization of financial markets. As you said, electronic markets, much lower cost to transact, much higher operational certainty, much better end user experience. A story that I share, back in the 1990s we used to have spare phones because people would call the New York Stock Exchange to get a trade done, there would be the proverbial story as to why it wasn't done, and then we would promptly destroy their phone. We have no spare phones. We haven't had a spare phone in years.

JOHN WALDRON: Right. No reason.

KENNETH C. GRIFFIN: There's no reason. There's no more moment where somebody's blood pressure goes to 180 because, well, there was the offer for 20,000 shares at \$62, I'll pay \$62. Ah, I'm sorry, you're down on 100, \$62 1/4 for the balance. What do you want to do? Those days are gone. They're gone. The good old days weren't so good. And our firm has been very much involved in the modernization of markets and the U.S. equity market today works extraordinarily well. Will this happen in fixed income markets? It'll happen in products that are very homogenous, like interest rate swaps or trading the on-the-run Treasury bond. In fact, almost, the vast majority of your on-the-run Treasuries are already done electronically. If we look at the corporate

credit market, because of tax and other considerations, you have a hugely heterogeneous market even in a given issuer. So there's a bespoke indenture. There's slightly different covenants. There's different call terms and so on and so forth. Because of that complexity, it's harder to apply some of the tools and techniques that we apply to other markets. But even here, you know this, Goldman Sachs is a leader in providing now portfolio bids in the fixed income markets. So, I, as an end user, can call Goldman Sachs and trade 50 or 100 different CUSIPs at an agreed upon spread until last trade with an incredibly high degree of efficiency. So, what will happen over time is the market fabric will change in a way that encourages more electronification because of the ensuing efficiency it creates.

JOHN WALDRON: Yes, agreed. Alright, I want to get to Citadel, the last question before we get to Citadel. The IPO market, you're a longtime observer and participant in the IPO market. We're obviously a longtime participant in the IPO market. You know recent evolution around these direct listings gets a lot of press. There's only been a few of them done. We've been involved in them. You've been involved in them. We recently worked on Slack together, which is, you know, probably the most recent example.

KENNETH C. GRIFFIN: It's been a home run for everybody.

JOHN WALDRON: So, can you just give some observations on direct listings versus

regular way IPOs, how persistent a theme is that? How should we think about it?

KENNETH C. GRIFFIN: So for a company that has a well-established brand, that has a broad shareholder base, that has a business that is profitable or nearing profitability, that does not need to raise capital, they're not trying to raise new money, a direct listing is an incredibly efficient way to go public. But if you're a company that is still in a research-driven growth mode or you're building out distribution, you need to raise money, the traditional IPO route is the absolute way to go. Because in telling your story on the road show, you have the captive audience that is there, prepared to write the check to fund the next chapter of your company's evolution. So I think we're going to see a handful of direct listings from some of the very big, successful tech startups.

JOHN WALDRON: Names that we would all know and brands that are already reasonably established.

KENNETH C. GRIFFIN: Exactly. And then we're going to continue to see a significant majority of all the capital raised in the IPO market raised in the traditional channel where primary money is being raised to further the interests of the business.

JOHN WALDRON: Yes, yes, okay. I completely agree. Let's talk about Citadel. Let's go all the way back to the dorm room at Harvard when you thought about starting this

business. What did you think about? What did you envision? And then I want to kind of get your perspective as it grew and as...because one of the things I've observed about Citadel over the years is you've really evolved. Right? And now at Goldman Sachs we sit here on top of 150-year organization and it's a great firm but we really have to evolve. There's a lot of technology as you point out. There's a lot of threats to our, what has been our core existence. And you've been able to navigate and kind of course through those threats and the changes in the market structure pretty successfully, extremely successfully. So maybe just go back to the beginning and then just tell the story a bit about how the firm evolved over time and dealt with some of those challenges.

KENNETH C. GRIFFIN: So I'll go back to the very, very, very start for just a moment. It was '86. There was an article in Forbes about how Home Shopping Network stock was overpriced. Right? And I'm a freshman at Harvard. I bought two put options on Home Shopping Network and the stock fell like 30%, and I made a few thousand dollars.

JOHN WALDRON: And you were hooked.

KENNETH C. GRIFFIN: I was, I mean as a freshman in college in the late 80s, this is like the coolest thing ever. I was hooked. And I'd always had an interest in finance, in the capital markets. Remember, if you go back to the 80s, you know the names that

were bigger than life, Henry Kravis, I mean that was like icon, like I wanted to be like Henry Kravis. I always thought I'd do private equity. I never thought I'd end up running a world markets firm and...

JOHN WALDRON: Well, hedge funds weren't a thing really in the early 80s per se.

KENNETH C. GRIFFIN: No, they really weren't.

JOHN WALDRON: Arbitrageur firms, but it was really more private equity at that point.

KENNETH C. GRIFFIN: It was private equity, and I wanted to be like Henry Kravis. That was the goal. So I had this interest in markets. I had an interest in finance. I buy these two put contracts and I go to sell them. They're deep in the money. And the market maker on the other side would only pay me less than the intrinsic value of the puts. Right? Going back to the stories of people breaking phones, so here I am, like you clearly know what this put is worth. It's just simple. It's just math, just addition and subtraction. And the market maker is like I'm not going to pay you that. Okay, I'll sell them to you and you're going to make all this money risk-free. And, well, now I want to learn how to be an arbitrageur. (Laughter) I want to be in your seat. And that really is the origin story, which is a story that would never get written today because the markets are so efficient, you would get a fair price. But I want to understand this idea of how do

you price derivatives. What is the mathematical theories behind this? So that's Black-Scholes, Cox-Rubinstein. And I was very fortunate to have a background in computer science, mathematics, and a passion for finance at the very moment that we were seeing the democratization of technology. Right? I had the right toolkit.

JOHN WALDRON: You had the right background for it.

KENNETH C. GRIFFIN: At that moment in time. Right? And I think a lot of your success stories amongst entrepreneurs is they have the right toolkit to solve the moment, the problem of that moment in time. We hire people today out of university whose toolkit in derivatives pricing makes mine look like child's play. But the opportunity set is different because the world has advanced so much. So I had the right tools to solve the problem at that point in time, started a small fund engaged in convertible bond arbitrage. We can leave the details out in the interest of time. And then went to work for a group in Chicago to do the same strategy for them. They were a fund-of-funds. Glenwood Partners, Frank Meyer was the partner in Chicago who ran Glenwood. I had, somebody you met and just had a personal connection with. He was like your high school physics teacher. I trusted Frank. I respected Frank. I moved to Chicago which I'd never lived in to go manage money for this gentleman who says if I do well, he'll help me start a business and raise money. And we launched Citadel formally a year out of college and we were managing \$200 million by 1993. I was 24 years old. So it was the American



success story in just like big, bright neon lights. And Frank Meyer was really important in writing that story with me because he brought credibility to the table in helping me to raise capital throughout my entire 20s. He was really a phenomenal partner in my life and still a very close friend in my life. And the firm spread its wings from engaging in convertible bond arbitrage to risk arbitrage into fundamental equities to the trading of energy products. And now we're pretty much in every major asset class that is liquidly traded. That's where we are today. And the reason for liquidly traded is we want asset classes where we have very quick feedback as to whether or not we're good at what we're doing. So ironically, private equity where you buy a company, you run it for several years, you don't know for...

JOHN WALDRON: It's the opposite of that.

KENNETH C. GRIFFIN: It's the opposite. I've ironically ended up in a world where we're very focused on do we understand the next quarter or the next six months, the weather and how that will impact power prices in Europe tomorrow and the next day.

JOHN WALDRON: Price discovery is kind of instantaneous. Near close to instantaneous.

KENNETH C. GRIFFIN: Exactly. And so that, in a nutshell, is the story of Citadel over

the last 30 years, my life in ten minutes.

JOHN WALDRON: Talk about the financial crisis, just reflections. That was a tough moment for all of us. That was the 100-year flood. You guys came through it. You survived it. You've gotten stronger. Just reflections on what that was like.

KENNETH C. GRIFFIN: That was the 16 worst weeks of my life, of my professional life. We lost half of our investors' capital in 16 weeks. We'd never had a double-digit draw down in roughly – at that point – 20 years and lost half of our capital in 16 weeks. And I was often on the phone with Lloyd Blankfein who was the CEO of Goldman at the time.

JOHN WALDRON: I've heard of him.

KENNETH C. GRIFFIN: Yes, commiserating. And Lloyd would have these wonderful uplifting statements – a forest fire burns until there's nothing left to burn. (Laughter) And, you know, Lloyd has been a dear friend of mine for a long time. We are very, we're both committed to financial aid in a big way at Harvard, and he was a real source of strength and insight in this moment in time. And I give my team real credit for having made the decisions prior to the financial crisis as to how we funded our business so we had stability in our balance sheet to weather the losses of a magnitude we'd never foresaw. And then my partners were good at making decisions on how to keep the balance sheet

as liquid as possible in a moment where you and I both know the U.S. financial system was literally seizing up. You know you're having a bad day when a major European bank calls you to borrow money.

JOHN WALDRON: That's not comforting.

KENNETH C. GRIFFIN: That's not comforting. I'm like, you're the bank, I'm the borrower.

JOHN WALDRON: I'm the client.

KENNETH C. GRIFFIN: And that story is not an exaggeration. So it was a really dark moment. Now, let's talk about moving past, and CNBC used to have the van in front of our office in Chicago to get the bankruptcy footage. Alright, so they wanted that image of me walking out with like my head down like we just filed bankruptcy. I'm so happy I didn't know this at the time. All my partners assumed I knew this, but I just kept going to work, my head down, we're going to get through this. And we did, we got through '08. Our capital providers were fantastic partners. The vast, vast majority continued with us post-'08. We had been sufficiently successful up through '08. One of our largest investors literally flew to Chicago and said I just want you to know, even with '08 having happened, since 1994 you are the second highest rate of return we've had in our

portfolio. And if you are committed, we are committed to you. Words like that mean so much in a moment like that. We simplified our business. We were – like many of the large investment banks – we had a much more levered business. We had much more leverage in the business. We were an investment grade issuer. We had a low cost to capital. We exited being in the storage business. So pre-'08, if we thought an asset was cheap and it create value to us over time, we'd buy it, we'd fund it. It would all be fine. Today we're in the moving business. So unless we think there's a very clear reason as to why an asset we own is going to appreciate soon, that's just not where we're going to be. And we drove our business away from balance-sheet intensive businesses to – in a sense – all skill-based businesses. So will Netflix beat on subscriptions this quarter? And is Amazon going to beat in AWS Cloud revenues? Everything today is a skill-based, fundamental-based investment decision for all intents and purposes across Citadel. It's a different business than the balance sheet-intensive business that we had pre-'08. And one of the things that we did is we really communicated this crisply and clearly to our client base. We've gone through a horrific loss...

JOHN WALDRON: This is our business model. This is what you should expect of us.

KENNETH C. GRIFFIN: This is what we're going to do going forward. The buck stops at my desk. I mean I blew it in '08, okay. One of the things I do get paid to do is to foresee things like what happened in '08 happening. I didn't see that.

JOHN WALDRON: Well, you weren't alone.

KENNETH C. GRIFFIN: It doesn't make me feel any better. But, you know, it was the ownership. It was the accountability. It's here's crisply and concisely what we're going to do to move the business forward. And then we executed on that with just absolute rigor. And, you know, history gets written by the survivors. It's been a really good 11 years since '08. The business has never been better.

JOHN WALDRON: So, I think we may be out of time. I just want to close. Best piece of advice you've ever been given and then I want to ask you, the Ken Griffin who is in the dorm room now, advice you would give that Ken Griffin given what's going on in the world today.

KENNETH C. GRIFFIN: Those are two really different questions. So, on the first question, there was a, I'm going to give an answer that I give to all my partners because I think it applies to day-to-day life. There was a gentleman named Reed Whittle who actually worked with the partners at Goldman Sachs and I had the opportunity to work with him back in the 2000s. Spend your time with your strongest colleagues. When you make them 10 or 20% better, that can be game changing.

JOHN WALDRON: That's a real multiplier.

KENNETH C. GRIFFIN: Real multiplier. Human nature is you want to spend time with the person who is struggling. That's just how we're wired culturally.

JOHN WALDRON: Which is also what rises to your desk when people say this person needs this or this person, as opposed to the people that are running really, really well, you don't need to spend time with them because they're doing their job properly.

KENNETH C. GRIFFIN: Exactly. But you do need to spend time with them because if you can make a different strategic course or drive more resources their way or simply encourage their affiliation with you, like they would be part of the team that you've built and they feel proud to be affiliated with you, much more powerful. And then for the young person in college, so there's two very different groups of young people at college. There are those who really believe they know what they want to do in life and they should find the career choice that puts them right at the epicenter of that decision as fast as possible. You only do live once. And the experiences that you have in your 20s, I think, lay the foundation for the rest of your life. You know I always say we forge our great talent. And that comes with the idea of pressure, of responsibility, but that's how you forge leaders. They don't happen because, like you work 9 to 5 and have a nice weekend. It's because you're working on really tough problems, the work you do is important to the future of the firm. You have to learn how to make decisions. You need to learn how to engage people around you. We forge our talent. And there's a bit of a

movement away from that in corporate America today which I find really worrisome because where will our future leaders come from. You know, both of our firms have a great history now of producing individuals who can stand on their own two feet outside of our walls.

JOHN WALDRON: Yes, agreed.

KENNETH C. GRIFFIN: Alright, that's what, great firms drop the seeds of future success stories. They still grow and prosper but they're able to develop talent. And I know both of us, the firm that we model ourselves off of – to this day – is the Goldman Sachs that you grew up with. On-campus, incredibly effective at recruiting. The two-year analyst program at Goldman Sachs was renowned for the experiences and the expectations and demands put on people.

JOHN WALDRON: A lot of forging going on there.

KENNETH C. GRIFFIN: A lot of forging. That's how you create, that's how you create leaders. That's how you create the future of Goldman Sachs, the future of Citadel, the future of our country. If you don't know what you want to do yet, then still, like make the best choice you can and get exposure to the hard problems in your early 20s. Because again it gets back to that story of in life you set up so much of your career trajectory in

those years, you don't have children, you don't have...

JOHN WALDRON: You can take risks.

KENNETH C. GRIFFIN: You can take risks. I started Citadel. Frank Meyer, who hired me out of college – Ken, if it doesn't work, you can go back to business school.

JOHN WALDRON: That's a pretty soft landing actually.

KENNETH C. GRIFFIN: That was my soft landing. You have a soft landing out of college. So just absolutely go for it.

JOHN WALDRON: Good. I think we're being given the hook. I think we've run out of time.

KENNETH C. GRIFFIN: We're done.

JOHN WALDRON: Thank you very much. Appreciate it.

KENNETH C. GRIFFIN: John, thank you so much.

(Applause)



PRESIDENT BARBARA VAN ALLEN: Thank you, Ken, for joining us this afternoon and for your great insights. And John, thanks for facilitating a great interview. Ken's packed, and John, a lot into their day. They're not able to stay for lunch but we very much appreciate them being here. I want to just mention that we have some great events coming up starting with a luncheon Monday with Dr. Heath Tarbert, Chairman of the U.S. Commodity Futures Trading Commission followed by, on February, the 26<sup>th</sup>, Ambassador Silliman, who is the recent Ambassador to Iraq and is President of the Arab Gulf States Institute in Washington. He's going to talk about the relationship with Iran and the Middle East, developments in the Middle East and the impact on businesses that are operating there. And then on March 4, we have a Real Estate Panel. We have Steve Roth coming from Vornado Trust, Bill Rudin from Rudin Management, and Lisa Picard from EQ. On March 11, we have our third annual event on Women and Investment. And we hope you'll all consider that one a priority. Also later this spring we have David Solomon coming, Anna Wintour, and now we have Larry Kudlow – mark your date – May, the 18<sup>th</sup> for Larry. And there's actually a lot more underway. So thank you all. Enjoy your lunch.