



The Economic Club of New York

114<sup>th</sup> Year  
586<sup>th</sup> Meeting

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Webinar

Moderator: Julia La Roche  
Correspondent, Yahoo Finance

## Introduction

President Barbara Van Allen

Good afternoon and thank you for joining us for the 586<sup>th</sup> meeting of The Economic Club of New York in our 114<sup>th</sup> year. I'm Barbara Van Allen, President of the Club and honored to be with everyone today. As you know, or many of you certainly, The Economic Club of New York is the nation's leading nonpartisan forum for discussions on economic, social and political issues and our mission, we feel, is as important today as ever as we continue to bring people together as a catalyst for conversation and innovation. I'd like to give a special welcome today to members of the ECNY 2021 Class of Fellows – a select group of rising next-gen business thought leaders, and it does appear we have the largest and actually the most diverse class ever in 2021. We also want to extend a special welcome to graduate students from Manhattan College, the CUNY Graduate Center, Baruch Zicklin School of Business and the Gabelli School of Business at Fordham University who are joining us today.

It's a real pleasure for me to welcome our fellow Club member and special guest, Jan Hatzius. Jan is head of the Global Investment Research Division and Chief Economist at Goldman Sachs. He's a member of the Firmwide Client and Business Standards Committee, and he was previously a head of Global Economics and Markets Research there. Jan joined Goldman Sachs in the Frankfurt office in 1997 and transferred to New

York in 1999. He was named managing director in 2004 and a partner in 2008. Prior to joining Goldman, Jan was a research officer at the London School of Economics.

He is the No. 1 ranked economist in the annual Institutional Investor All-America Fixed-Income Research Team, a position he's held for the past five, excuse me, eight years.

Jan is a member of the economic advisory panels of the Federal Reserve Bank of Chicago as well as the Congressional Budget Office.

He has PhD in Economics from Oxford, as well as degrees from the University of Wisconsin-Madison and Kiel Institute for the World Economy.

Our format today will begin with prepared remarks from Jan followed by a conversation, and we are most fortunate to welcome back Julia La Roche, fellow Club member and correspondent at Yahoo Finance. And I just want to mention that only yesterday she interviewed Charlie Munger for two hours, so pretty awesome. As a reminder, this conversation is on the record and we do have actually quite a bit of media that is joining us today. So with that, I'll turn it over to you, Jan.

### Remarks from Jan Hatzius

All right, thank you so much, Barbara, for the invitation to speak and to Julia for

moderating. We have a very optimistic view U.S. growth forecast for 2021 in particular. And if you look at page 2 of my presentation, you can see the Goldman Sachs forecast for 2021 and how it has evolved over the past year, the median of the Bloomberg Survey of all forecasters – I think there are 82 in the survey at the moment – but also since the Bloomberg median can sometimes take a while to move, there are a lot of people in there – not everybody updates their forecasts in real time. Also our forecast relative to other large banks, forecasters that make similar kinds of forecasts on the same kind of schedule as we do. And also we're showing the IMF. So there are two take-aways from this chart.

Number one, our 7% forecast for 2021 is at the high end of expectations and, number two, everybody's been upgrading their forecasts in recent months and that's certainly been true for our forecast as well as you can see. Now, there are basically two reasons for this optimistic 2021 view. Number one, an improving Covid situation, which is a global factor obviously with some regional differences. And then number two, a fiscal boost of very large size, which is a U.S. factor, and I'll spend a few minutes on each of them.

So if you turn to the next page, page 3, you get some perspective on what's been happening on the virus front and what I focus on here is the positive test rate for Covid. And on the left-hand side you can see, in the dotted black line you can see what's been

happening. We saw a sharp increase in late 2020, a sharp decline in 2021 so far. And it's been interesting that this is correlated with other coronaviruses, a similar kind of seasonal pattern as other coronaviruses that we've seen in the past. And it's interesting that, in general, seasonality seems to be pointing in a more positive direction with these coronaviruses than relative, at an earlier point in time, than with the flu virus which you can see on the right-hand side which typically peaks in February.

Now, recently if you look at the last week or two, there have been some slightly more mixed data. We've seen that in a number of countries. We've seen it a bit more clearly in Europe, but also to some degree in the U.S. And I think probably some of this is noise around the, around holidays and the snowstorms that we saw in Texas and other parts of the country, so I think there's probably still an improving seasonal trend that we would expect to continue in coming months.

The other reason for optimism on the Covid situation is shown on page 4 if you can flip the page, namely what's been happening with vaccinations and what we expect to happen with vaccinations. Again, there's been somewhat weaker near-term numbers again probably related to some special factors like weather, but in general we've seen a pretty sustained and ongoing uptrend in daily vaccinations from the very low levels of late December to the 1.5 to 1.7 million per day range.

Our expectation is that we'll get back onto that upward sloping trend soon with an increase to the 2 million range in the next couple of weeks and then to the 3 to 3 ½ million range in late April, early May, and that's assuming that the Johnson & Johnson vaccine gets approved and we start to see significant shipments within the next several weeks. So vaccinations, of course, are really a key reason for expecting improvement on the Covid situation.

If you turn to the next page, page 5, that shows what that might mean for the total percentage of the U.S. population that has been exposed or vaccinated. And, of course, there are a number of assumptions in here that are difficult to be confident about. But if we assume the kind of time line for vaccinations that I've just outlined, and we make some assumptions about declines in infections on a path that is similar to what we've been seeing recently and basically assume some overlap between those two groups, then we can estimate where total immunizations or the immune share of the population is going to go over the next several months.

And our estimates are that currently we're, it's somewhere in the 40 to 45% range for the population that has already developed immunity and then that we get to about 70% by June. So it's hard to know what that means in terms of the concept of herd immunity, which is, I think, a difficult concept to be sure about. But we would expect that the virus in this kind of environment becomes much less of an issue for economic activity at least

over the next several months. So that's one major boost to the economic outlook and one major reason for why we have an optimistic growth outlook.

Turning to the second reason, if you turn to page 6, the second reason, of course, is the very sizable amount of fiscal support that we're likely to see. And there are three additional fiscal packages beyond last year's package, CARES Act and some smaller ones, that are going to be relevant for 2021 and subsequent years.

Number one, the Phase 4 package of \$900 billion that was passed really just before the end of the year and is paid out in 2021. Number two, the Phase 5 package that is currently being negotiated where President Biden is asking for \$1.9 trillion. Our assumption is that it ultimately is going to be \$1.5 trillion, that ultimately there will be a little bit of a haircut, but we think the rest of that is probably a bit on the upside so maybe between \$1.5 and \$1.9 trillion. And then we're also building in an infrastructure package worth about a trillion dollars, but one that is spread over a much longer period of ten years. Probably also some upside risk to that, but the uncertainty there is somewhat greater.

So there's a very large amount of fiscal support. I do think that the fiscal support is primarily, really primarily going to occur in 2021. We think it's going to be very front-loaded and I think that's a really key point as we go through the rest of my remarks. A

very large amount of fiscal support in 2021, we already had, of course, a very large amount of fiscal support in 2020. That amount of fiscal support is going to diminish substantially as we get into the remainder of this period, 2022 and beyond. So that's very supportive.

There's another area, a related point that also is quite supportive, if you go to the next page, page 7. And this is that there is a substantial amount of pent-up savings that is effectively left over from 2020. 2020 saw a very large amount of fiscal support through one-off payments, through unemployment benefits, and at the same time, limited spending opportunities especially in the service sector that's resulted in savings that have accumulated on household balance sheets. And if you look at where the saving rate has been and what the saving rate otherwise might have been, something closer to the pre-pandemic level, we can calculate that that's resulted in about \$1.5 trillion of pent-up savings on household balance sheets. Some of that is likely to be spent as the economy reopens and that's going to add to the impact of the fresh fiscal stimulus on economic activity.

So, large numbers. Big question in all of this then is really, is this too much of a good thing? Is the extent of the rebound in growth and the amount of fiscal support that's coming to the economy, is that going to lead to a substantial amount of overheating in the economy and much higher inflation? And two of the giants of macroeconomics,

Larry Summers and Olivier Blanchard, say so. And their reasoning is basically that even if you just look at the \$1.9 trillion package that's now being negotiated, that that is much bigger than the amount of spare capacity that's left in the economy. The Congressional Budget Office, for example, estimates that in the fourth quarter of last year there was about \$600 billion to \$700 billion of spare capacity left, about 3% of GDP. And again, this is before you get to the impact of pent-up saving and other supports to economic activity.

I would say that in the near-term – these are very important issues to discuss and in the near-term I think that incoming news flow might well increase these concerns. If you turn the page and you focus kind of more directly on inflation, near-term inflation is very likely to increase significantly. We're currently at 1.5% for the core PCE index that the Feds most focus on, that number is probably going to go up to about 2.5% by April and that's probably the top end of the range that most FOMC members are comfortable with, 2 to 2 ½% is probably where they sort of want to land. And I think a lot of these inflation concerns are starting to be reflected in the bond markets where yields have obviously been rising.

So how concerned should we be? I would say that I am somewhat less concerned – obviously, this all bears monitoring – but I'm somewhat less concerned about a large overheating for three reasons. Number one, at least as far as the near-term inflation

outlook is concerned, most of the inflation increase reflects more short-term factors that are going to diminish as you go through the remainder of 2021 into 2022. One important one is the base effect, the effect of lapping the very low readings in the inflation numbers in the spring of 2020.

Another factor is administered healthcare prices in the PCE index, they account for, healthcare services account for about 20% of the index. And those are going to drop out over time and we, in fact, think that inflation is probably going to drop below 2% in early 2022, although I should say that that will then reflect some distortion to the downside in these numbers. But the broader point is that a lot of the near-term strength in inflation is probably more temporary.

A second point, a second reason why I'm somewhat less concerned is that if you look at page 9, we estimate a somewhat bigger output gap than the Congressional Budget Office and other official institutions that estimate output gaps. I said fourth quarter of 2020, CBO was estimating 3%. If you look at the monthly GDP numbers that are calculated by IHS Markit, along the same lines as the official numbers, that would give you – if you compare that with the CBO estimate of potential, that would give you about 4%. Our own view is that that might still be somewhat understated. Our best guess for the size of the output gap is about 6% as of December.

And one point that I think is important in this is that we're assuming that the economy was still maybe a bit short of full employment prior to the pandemic, consistent with the observation that inflation was not consistently at 2% prior to the pandemic. So there's a significant amount of room and a significant shortfall in output relative to potential still in the economy. I think that's also consistent with what you see in the labor market, the fact that we're still about 10 million jobs short of where we were prior to the pandemic.

And then turning to the third point, the third reason why I'm somewhat less concerned, if you go to page 10, our expectation is that, if you could flip the page, our expectation is that the economy is likely to decelerate somewhat as we go into 2022. Would it be possible to flip the page? Here we go. Our expectation is that we'll see a deceleration in the economy. We're very optimistic on near-term growth. Our Q1 GDP forecast is 6%. Our Q2 GDP forecast is 11%. But then we expect a deceleration as we get into 2022 and something only a little bit above trend on a Q4-to-Q4 basis in 2022. And, in fact, in the second half of 2022, our expectation is only approximately trend growth.

Now, what's the reason for that? You can see it on the subsequent page, which basically takes the key factors that I've talked about and some smaller factors that I haven't talked about that are adding to growth, especially in 2021, and then quantifies the impact of each of these factors on the level of GDP relative to the trend and relative, and the impact is calculated relative to the impact in late 2020. And the upshot is that

we get something like a 4% of GDP boost from just the reopening of the economy. We also get additional fiscal support even relative to the very expansionary setting of 2020 in the next couple of quarters, worth about 2% to the level of GDP.

As we go into the later part of 2021 and into 2022, that additional fiscal support is basically supplemented by a partial spend-down of the pent-up savings that I talked about. But with all of that, the point is that as you go into 2022, you don't get additional, you know, significant additional support and so the impact on the level of GDP actually diminishes somewhat as we go through 2022.

And if you just flip the page, go to page 12, this is the same chart as before except that I'm showing all of these numbers in terms of the impact on the "annualized" GDP growth rate rather than the level. So this is more closely related to the actual growth forecast. We've got some very sizable positive impulses in the first half of this year and then into the second half as well, but then those impulses start to turn negative relative to where we were previously. So the fiscal impulse in late 2021 and through 2022 is actually negative because you're sending people tax rebates in the short-term, \$1,400 in the Phase 5 package on top of \$600 in the Phase 4 package, but those are not repeated in 2022 and that actually shows up as a negative fiscal impulse.

So that's effectively the view as far as the growth outlook is concerned and the reasons

why I'm not as concerned about overheating of the economy. Let me just briefly close with our expectations for Fed policy and then we'll move on to some questions. If you could turn the page to page 13, our expectation is that we are going to see for a while still, of \$120 billion of asset purchases and obviously an effectively zero funds rate. We expect that the asset purchases are going to start being tapered down in early 2022. And I think there's been pretty strong guidance that it's probably not going to happen quickly.

The next couple of quarters I think have been largely ruled out in our reading by what we've heard from Fed officials. It could be that tapering starts in late 2021, but we think early '22 is more likely. The Committee has said that they expect to proceed along similar lines as in 2013-2014, which probably means reducing the purchase pace by \$10 billion to maybe \$15 billion per meeting. And that would give you one to one and a half years for the move from \$120 billion of asset purchases down to zero. That would take you into early to mid-2023 and after that the rate hikes could commence, but that's really going to depend on the economic data.

On our forecast, the criteria for the lift-off, maximum employment, inflation at 2% and confidence that you're on track to moderately exceed 2% for some time are going to be satisfied by the first half of 2024 when we have the core PCE inflation rate at 2.1% and gradually rising over time. It could be earlier. The second half of 2023 is certainly

possible, but early '24 is our best guess.

In terms of the pace of tightening, our expectation would be that it starts relatively slow, 25 basis points in the first half of '24, another 25 basis points in the second half, but then beyond that, the pace may accelerate somewhat. Again, all depending on the economic data. I'm talking here about things that are still several years in the future. It's obviously very difficult to be confident of any of these kind of time frames, but this is our best guess. Let me close there and maybe we can go to a discussion.

#### Conversation with Jan Hatzius

JULIA LA ROCHE: Great. Thank you so much, Jan. So, let's start first, it would be nice to get your views on what you're thinking about when it comes to non-U.S. economies and non-U.S. financial markets. Obviously, you're optimistic on what's happening with the U.S. economy, but are you also optimistic on other economies or is this just more U.S.-specific?

JAN HATZIUS: Generally, also pretty optimistic elsewhere but not as much. I mean, as I said at the start, there are two reasons for our optimism. One is really global. And that's the expectation that the virus is going to become less of a drag on economic activity and for the most part that's true across the different economies at somewhat different time

frames.

The U.S., and even more so the U.K. and Israel, are earlier in this basically because of more progress in vaccinations. The European Union is somewhat later. Emerging economies are probably even later. But over time, vaccine availability is likely to improve significantly in other places as well and so there will be a substantial lift to activity in those places too.

And I would say there are a number of economies that are still more depressed than the U.S. They're further, they're more deeply in the hole as far as activity is concerned at the moment. So this lift from an improving virus situation in some ways is probably going to be naturally more powerful than elsewhere. But then there's one factor that I think is more U.S.-specific, which is this really fresh bout of fiscal stimulus, which we're not seeing, certainly not to anywhere near the same degree, elsewhere. So if I take the European numbers, our forecast there for 2021 growth is about 5%. The Bloomberg consensus is a little over 4% so we're above consensus. We're positive but we're not quite as strong as in the U.S. The only place where we don't have an above-consensus forecast is China because we think China is already basically back to the pre-crisis trend so there's just less upside and probably less incentive for policymakers to continue stimulating.

JULIA LA ROCHE: Well, there are several things that we'll want to dig in on. I do want to go back to a comment. You mentioned, you know, some of the commentators who often talk about, I guess this kind of risk of overheating, I guess looking at the one-off nature of fiscal stimulus. I would love to kind of look at this a bit further and, you know, when they talk about that, I guess could it lead to more inflation? And does the Fed have the tools to contain inflation should things overheat?

JAN HATZIUS: It could lead to more inflation. I think that is the concern that you do too much in terms of stimulating, then you get the economy to a level of activity that's well beyond its capacity to produce and then you get a, you know, price increases, a wage price spiral and that leads to significantly higher inflation. That's basically the story that you saw in cycles maybe prior to the 1990s. And I think that is a potential risk and there is a lot of uncertainty in the environment that we're in.

There are a number of very important forces bearing down on the economy, or maybe bearing up on the economy in the next year or so and estimating them precisely is very hard. So definitely possible. And so monetary policy is going to have to respond to this flexibly and of course it's possible to accelerate the time frames I talked about. It's possible to start the tapering of QE earlier and it's possible to accelerate it. Maybe you could go somewhat faster in terms of bringing it down from \$120 billion to zero and then you could pull up the time frame for the rate hikes as well. And, you know, I think that's

a possibility.

I would say, though, that the Fed is more tolerant of inflation overshoots than in the past or maybe even solicitors of inflation overshoots relative to the 2% longer term target. But if you were to get to, you know, 2-1/4% or 2 1/2% on core PCE inflation, that's just not going to cause the same kind of alarm that it would have done maybe in the past. Now, there is a level at which I think they would become significantly more aggressive, but it's just probably, you know, 30, 50 basis points north of what you might have seen ten years ago.

JULIA LA ROCHE: I do want to kind of bring up markets as we were talking about before this began and specifically I want to ask you about the surge in Treasury yields hitting a one-year high today. It's a large move, so what do you make of it?

JAN HATZIUS: I mean I think it's large move that's consistent with the incoming news flow on the economy. As you saw in my first slide, you know, we've been upgrading our growth forecast. The consensus has been upgrading. Basically everybody's been upgrading. You know, people have different views in terms of the absolute numbers but there's been a lot of upgrades to growth. There have been a lot of upgrades to at least the near-term inflation numbers over the past couple of weeks. And, you know, some of this again is more one-off factors, but we're in an environment where there's substantial

upgrades and the acceleration probably is also going from a forecast to a fact to some degree if you look at the January retail sales numbers for example. So it makes sense for rates to move higher.

I think until recently you had a point also where the bond market was not really pricing in the Fed's inflation target. If you look at breakeven inflation, the gap between nominal bond yields and inflation index bond yields, you were not consistent with the 2% longer term target. That's now ended. I mean we're probably much closer to where we need to be from a longer-term perspective. Ten-year breakeven inflation rates are 2.15%. Those are measured on a CPI basis. The CPIs typically, typically run somewhat ahead of the PCE index. So I think we're in a more sensible place.

Right now we're having some significant upward pressure on real rate expectations, and I think that could still run a ways further in this sort of environment that we think we're going to be in. You know, I don't think it's going to go in a straight line. I think we'll still be in a low-rate environment by historical standards, even a year down the road or two years down the road, partly because I do think that the most likely path for Fed policy is one where the exit takes a pretty long time and the Fed is, you know, pretty careful not to overdo the pace of exit because they don't want to see a relapse in the economy. But I think the trend in rates over the next couple of years is very likely to be higher.

JULIA LA ROCHE: I guess also, do you worry, though, that a sell-off in the bond market could undermine the recovery?

JAN HATZIUS: I think that's a possibility, but I wouldn't say it's, it's not my expectation that it will undermine the recovery. I think the most likely is that bond yields rise in a generally improving growth environment and other asset markets, equities and credit hold in reasonably well. That's not going to be true every day along that path. I mean today we're obviously seeing a significant setback in the equity market. But over time we think that other financial markets will be able to cope with the increase in bond yields as long as the increase in bond yields is consistent with improvement in the real economy. Then that's a pretty natural combination to see higher rates but still a relatively resilient economy.

I did say it's possible so you have to, as a policymaker you have to take, you know, you have to monitor this pretty closely. If you had very sizable increases in bond yields that as a policymaker you thought were not justified by how quickly the economic outlook is changing, I think then there would be probably some desire to jawbone or talk about the outlook and the idea that it's still going to take a while. And if things got more extreme, then of course the Fed could also ease more. They could go back to the discussion about lengthening the maturities of the purchases, for example. They could, you know, in a more extreme case, they could think about providing more support to the credit

markets. I think all of this is pretty far away, but these are obviously tools that are in the arsenal.

JULIA LA ROCHE: We do have an audience question, Jan. This person asked, what distortions will persistently negative real interest rates generate and what risk might that create?

JAN HATZIUS: I think, well, there's a question of how persistent the negative real interest rates are. And, of course, at the short end of the yield curve we do expect real rates to be negative for the next several years because the nominal funds rate is zero and inflation is positive. We've gone through this. We had this in the aftermath of the 2008 crisis. I think in the end the distortions that were created by negative real rates post-2008 were not as significant as I think many people were concerned about in maybe 2009, 2010. And that would be my expectation again. I don't think there's anything particularly unusual about having negative real interest rates at the short end of the yield curve in the aftermath of a downturn when you still have significant spare capacity.

The other point I'd make is that markets, with the sell-off in the bond market and the increase in bond yields that we've seen, have actually returned to positive real rates over the somewhat longer term. So if you take the five-year real yield five years forward,

pretty far in the future, that's moved back into positive territory. But there's nothing unusual, I think, about negative real rates for periods of time.

JULIA LA ROCHE: You know, Jan, during your presentation you did talk about upside risk so I do have a question about that. You know, a lot of the economic research that we read, it talks about these upside risks to the forecast. And, in other words, the concern that forecasts are too conservative, what's behind this? And also you have one of the more bullish forecasts out there, I think maybe the most bullish. With how far we've come along, do you think the risks are tilted to the upside or are they more balanced or should we be more concerned about the downside risks?

JAN HATZIUS: Well, relative to our forecasts, I think the risks, I feel they're relatively balanced. If I didn't feel that, then I'd be changing the forecast. And, you know, we've tried to manage this relatively actively that, you know, these risks don't get too far out of line. I mean I think on the upside, I talked about some of the things that could develop even more strongly than what we have in our forecast.

The pent-up savings on the household balance sheets, I think, are a significant unknown issue. We're assuming that about 20% of that money gets spent. So we're basically assuming that less, a smaller proportion gets spent than what you would normally expect for income. If it's current income, the propensity to spend that is

significantly higher than 20%, maybe 60% or so.

But we also assume that it's higher than wealth, the percentage of wealth that people would spend per period, so called wealth effect, people generally think is maybe 3%. So we think it's somewhere in between. We've done some work on the distribution of these pent-up savings across households, across income groups, across different types of assets. We think 20% is a reasonable expectation, but it certainly could be higher. It could be 30%. That would add to our growth forecast. We could see more fiscal stimulus, as I said, we're building in \$1.5 trillion. It could be \$1.9 trillion. The infrastructure package could be bigger. That's the upside.

On the downside, you know, I'd say that we are building in a relatively rapid normalization of the virus situation and a relatively sizable reopening of the economy. It adds 4% to the level of GDP or a little more than 4% to the level of GDP. And, of course, there are risks that it takes longer. Maybe there are more setbacks on virus and vaccinations and that would, of course, be very concerning from a health perspective, but it also would have some negative effects on the economy. And I don't think we should entirely lose sight of those risks.

JULIA LA ROCHE: I do want to also just kind of ask what, you know, kind of life post-Covid, obviously you're talking about the vaccine, but, you know, even as the

coronavirus does subside, we are reading a lot about the changes to the way the economy might function, meaning, you know, fewer people going into the office, less travel, more people moving to the suburbs, those sorts of factors. So what does all this mean? What do you think this means for the economy going forward and maybe even kind of beyond 2021?

JAN HATZIUS: I think that's a very good question. It's hard to know how many of the changes that we've seen during the pandemic are going to be permanent and what changes. I mean I think probably all of us think that some things continue the way they've been during the pandemic. Maybe more of these kinds of events are going to be via Zoom and other video-conferencing platforms and I think a lot of trips, a lot of meetings that maybe would have, one-off meetings that would have maybe required a trip across the country or internationally are going to be done on video conferences. But I also think that a lot of, that that's always only going to be partial. Business travel, I think, is going to resume. Pleasure travel is very likely going to resume. We'll probably get a big bounce-back in that soon after people feel safe doing this.

I think in terms of the world of work and how much time people are going to spend in offices, I think it's going to depend a lot on the industry you're in. And even in industries where generally people come back to offices, I suspect that it's going to be somewhat more flexible with maybe three or four days in the office and one or two days working

from home. And then there's the question of the retail sector. We've seen a big acceleration in the shift from brick-and-mortar retail to online retail. I don't think any of that, I don't think much of that unwinds. I suspect that that's probably a permanent shift and a permanent increase perhaps in the pace of that kind of structural move towards online retail.

JULIA LA ROCHE: Well, Jan Hatzius, Goldman Sachs Chief Economist, I really appreciate you taking those questions, and I'm going to hand it over to Barbara Van Allen.

JAN HATZIUS: Thank you so much, Julia.

BARBARA VAN ALLEN: Many thanks, Jan. What a great presentation and, Julia, really insightful questions. Thank you to both of you for joining us today. I am pleased to report that we have a great many speakers coming up. And as always, we encourage you to invite guests to our events. We have Mary Daly actually next week, on March, the 2<sup>nd</sup>. She's the President and CEO of the Federal Reserve Bank of San Francisco, and Peter Henry will be doing the honors for that. That will be followed on March, the 11<sup>th</sup>, we have upcoming, or incoming Citi CEO Jane Fraser and GM CEO Mary Barra joining us for our Women in Business Conference on March, the 11<sup>th</sup>, and actually there'll be a lot more interesting speakers as well. On March, the 18<sup>th</sup>, we just opened

that up for members to register today, we have Alex Gorsky from J&J who will be talking about the J&J vaccine that just got approved so we look forward to that. Ken Langone, the Founder and CEO of Invemed and, of course, Home Depot will be joining us on March, the 23<sup>rd</sup>. March, the 25<sup>th</sup>, we have Dr. Raphael Bostic, President and CEO of the Federal Reserve Bank of Atlanta. We're quite excited about that. Followed by Caryn Seidman-Becker, who is Chairman and CEO of CLEAR. She'll join us March, the 30<sup>th</sup>. And then we have the Chief Medical Officer, Tal Zaks of Moderna, joining us April, the 7<sup>th</sup>. And then, of course, Neel Kashkari will be coming back to the Club and addressing the Club on April, the 8<sup>th</sup>, the CEO and President of the Federal Reserve Bank of Minneapolis. And many more, so keep your eyes peeled. We do have some more exciting ones that aren't there on the schedule yet that are coming up.

I want to also take a moment to recognize those of our 324 members of the Centennial Society that have joined us today. Their contributions really represent the financial backbone of the Club and help enable us to offer our wonderful, diverse programming now and into the future. So there are their names there. Thank you again. And thank you to all of you that joined us today and please stay healthy and safe.