

The  
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The Economic Club of New York

113<sup>th</sup> Year  
570<sup>th</sup> Meeting

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Mark Zandi  
Chief Economist  
Moody's Analytics

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Webinar

Moderator: John C. Williams  
Chairman, The Economic Club of New York  
President and Chief Executive Officer  
Federal Reserve Bank of New York

## Introduction

Good afternoon everyone. This is Barbara Van Allen, President of the Club. Thank you for joining us this afternoon. We'll get started in exactly two minutes.

## Chairman John C. Williams

Well, good afternoon and welcome to the 570<sup>th</sup> meeting of The Economic Club of New York, and this is our 113<sup>th</sup> year. I'm John Williams. I'm the Chairman of the Club and I'm President and CEO of the Federal Reserve Bank of New York. The Economic Club of New York is the nation's leading nonpartisan forum for discussions on economic, social and political issues. Our mission is as important today as ever as we continue to bring people together as a catalyst for conversation and innovation and we proudly stand with all communities seeking inclusion and mutual understanding.

I'd like to take a moment to recognize those of our 312 members of the Centennial Society attending today as their contributions continue to be the financial backbone of support for the Club and help enable us to offer our wonderful and diverse programming both now and in the future. A special welcome to members of The Economic Club of New York 2020 Class of Fellows. It's a select group of rising next-gen business thought leaders. I make special note that applications for the 2021 Class are now open. So any member that's interested in nominating a fellow, please visit our website for more

details. We'd also like to welcome graduate students from the Gabelli School of Business at Fordham University and the NYU Stern School of Business.

Now it's an honor for me to welcome our special guest today, Chief Economist at Moody's Analytics, Mark Zandi. Mark's on the Board of Directors of MGIC, the nation's largest private mortgage insurance company, and he's the lead director of Reinvestment Fund, one of the nation's largest community development financial institutions, which makes investments in underserved communities.

He's a trusted adviser to policymakers and an influential source of economic analysis for businesses, journalists and the public. Mark frequently testifies before Congress and conducts regular briefings on the economy for corporate boards, trade associations, and policymakers at all levels. He is often quoted in national and global publications and interviewed by major news media outlet, and is a frequent guest on CNBC, NPR, *Meet the Press*, CNN, and various other national networks and news programs.

Mark is the author of *Paying the Price: Ending the Great Recession and Beginning a New American Century*, which provides an assessment of the monetary and fiscal policy response to the Great Recession. He has another book, *Financial Shock: A 360° Look at the Subprime Mortgage Implosion, and How to Avoid the Next Financial Crisis*, is described by the *New York Times* as the "clearest guide" to the financial crisis.

Mark earned his BS from the Wharton School at the University of Pennsylvania and his PhD from the University of Pennsylvania.

So the format today will be a conversation, and I'm very glad that I'll be doing the honors. We'll end promptly at 2:45 and I want to remind everyone that immediately following the event, the Club is hosting a post-event discussion and networking opportunity. So simply click on the meeting link provided in your email or see the link shared in this event's chat box. As a notice, this conversation is on the record as we do have media on the line.

### Conversation with Mark Zandi

CHAIRMAN JOHN C. WILLIAMS: Okay, well with that, Mark, I will welcome you to The Economic Club of New York and our conversation today.

MARK ZANDI: Thank you John. It a pleasure to be with you. What did you say, 570th? Is that what it was?

CHAIRMAN JOHN C. WILLIAMS: Yes. We are having more events this year than we've ever had. Despite or maybe because of the pandemic, we are able to bring together thought leaders and speakers almost it seems like every day quite honestly.

MARK ZANDI: So, what, you guys go back to Alexander Hamilton? Is that what's going on? 570?

CHAIRMAN JOHN C. WILLIAMS: A hundred and thirteen years.

MARK ZANDI: Oh, 113 years, okay.

CHAIRMAN JOHN C. WILLIAMS: Alright Mark, so obviously you're an economist and this is The Economic Club of New York. I've got to ask you. How are you seeing the economy today and what's the shorter-term outlook for the economy from your point of view?

MARK ZANDI: Well, we've got some good news from Moderna and Pfizer and that makes me feel pretty good about the intermediate term outlook. Not that it changed my outlook for, it's funny because we were talking about, before we got on the call, how economists have turned into epidemiologists, we have to do an epi forecast to do an economic forecast. And my assumption has been that we'd get a vaccine or vaccines that are effective and widely distributed and adopted by mid-2021. And the Pfizer, Moderna announcements didn't change that forecast but it makes them more real. It reduces the uncertainty.

It was a story, you know, before those announcements. It's still a story but it feels like it's more of a real story and it reduces the tail risk. Obviously that's how financial markets interpreted it, I think one reason why stock prices have reacted so positively. I don't think people changed their forecast. They have much more certainty with regard to that forecast. And that makes me feel a lot better about, you know, what the world will look like if we reconvene here for the 600<sup>th</sup> meeting a year from now of the New York Club, I think we'll be feeling pretty, much better about things.

Having said that, though, getting from here to there, I think, is going to be tricky. I think the economy, the recovery is very fragile. And, you know, with the pandemic intensifying – infections, hospitalizations, deaths – and with the lack of any additional fiscal support probably not until after President-elect Biden is inaugurated and we get into February of next year, the economy feels like it's kind of sort of on its own and it's a bad time to be on its own. And so I think it's going to be uncomfortable here over the next few months.

You got a sense of that today, you know, we got a data point, retail sales came out. And it increased, but it was a very small increase. And it does suggest that this surge in retail spending that we saw during, up until, through the pandemic is starting to wind down and also I think it indicates, because you saw a decline in restaurant sales in the month, that indicates that the pandemic is now conflating with the colder weather. People can't eat outside and it's starting to do some damage. So I think that's, the retail sales

numbers today were a harbinger of much weaker economic conditions dead ahead. And that's what I worry about over the next few months.

CHAIRMAN JOHN C. WILLIAMS: So, Mark, we're all looking at new types of data as we've tried to figure out what's going on with the economy. What have you found to be particularly new or trustworthy kind of indicators that help you think about how are we doing in November, going through December? What are the kinds of things that you've been following most closely as you watch the economy?

MARK ZANDI: Yes, you know, it's actually, one of the most interesting developments during the pandemic is there's been an explosion in third-party data sources. I think most companies that have been collecting data have viewed this as an opportunity to get that data out and try to have an impact, be of benefit to the discussion. And so we've seen just an enormous increase in the number of various data sources. Each one has its issues, like all data, but I think all of them together provide, you know, a much richer picture of what's going on real-time in the economy.

I'll give you a couple of examples. I've become much more enamored with the Morning Consult sentiment surveys. You know they, for example, conduct a daily survey of 5,000 consumers. They ask the same exact questions the University of Michigan asks in its monthly survey every single day. And that's, I believe, correct me if I'm wrong, but I

think the University of Michigan has 500 respondents. So with 5,000 respondents you get a very granular view across the population, you know, demographic cuts and all kinds, regional and political persuasion. In fact, you know, I get a big kick out of it, they have an index for people who watch MSNBC compared to those who watch FOX. And you can see it reversed with the election. You know, the FOX folks were very happy before the election. Now they're very unhappy.

But I watch that very carefully and I think that's really important now because generally I don't think sentiment, it generally reflects the economy, it doesn't drive it. But turning points in the economy becomes a driver of the economy. It kind of leads the economy into recessions and out of recessions. And, you know, it fell very sharply when the pandemic hit, it kind of leveled off. Since then, it hasn't really done much. But I'm watching that very carefully. If that starts going south again, I think that would be a clear sign of a problem.

Another data source I follow very carefully and getting a big kick out of it is B2B spending, business to business spending from a company called Cortera. I don't know if you know those folks. They track, according to Jim Swift, their CEO, they track, I believe, about one-fourth of all the B2B transactions that occur across the nation. And, of course, B2B is a precursor to B2C, right? So, you know, I'm Walmart, I have to buy from my vendors and then I put it in the store or online and I distribute it, I sell it to



consumers, so it kind of gives you a window on what's going to happen like with retail sales before you get the retail sales numbers. And he pulls out data, you know it's like, the analogy is dipping a ladle in a stream and pulling out and taking a sip. That's what he does with their data. And so we get a pull every month and, you know, that provides a lot of insight into what's going on. Because he can cut it by, there's 100, you know all the three-digit NAIC codes, by region, by company size.

And I'll give you just one tidbit from that. In the month of October, excuse me, the month of November, we just got a pull last week, sales for small businesses – those with fewer than 500 employees – actually declined relative to October. Whereas the big guys, they kept going north. Their sales continued to increase. But the smaller guys actually started to dip again. And I think that again goes back to, you know, a warning sign about what's dead ahead for the economy.

And, of course, I'll mention one other thing and then I'll stop. I mean I could go on for days. But the other data source that we track very carefully, because we have a joint venture with ADP, the payroll processor, we get records for 23 million employees every day. And that's almost the size of the BLS sample for the monthly employment data. So we get a pretty good window into what's going. You know there's a bit of a parlor game where we try to predict BLS every month. I wish we didn't do that, you know, to be honest with you, because we can never be right, because we're both touching different

parts of the elephant and it's not going to be exactly right. But you get a lot of insight from that data because – and I know the Fed's using that data too in some of its work – you can get a real good sense across the labor force in terms of industry, region, tenure of worker, company size, company location. You get a real good sense of what's going on in the economy on a more real-time basis and I find that of significant value as well.

CHAIRMAN JOHN C. WILLIAMS: I'm curious how you think about all this new data and information. And like you said, we have data across the whole country, high frequency daily data and, you know, we're getting closer to big data and being able to use this. How is this going to help us beyond understanding what's happening this week or next week, kind of understand, you know, kind of more of how the macroeconomy works and fits together, which our models tend to still focus a lot on, you know, like you said, the employment data, the GDP data? Do you see that as an area that is going to help us think more clearly about how the economy works? Or is it really more just understanding like where we're at today?

MARK ZANDI: Well, I think it does. I mean, first of all, it's shedding light on different parts of the economy that the government source data does not. It's kind of filling in the white space, you know, between a lot of the government data sources. And, you know, as you know, because of budget cutting and fiscal issues, we've seen some pullback in the availability of government. We've gotten some other data but we've lost a lot of data.

I mean, for example, when I was the young economist I would rely very heavily on non-residential construction permits provided by the Department of Census. They used to provide that data, you know, by permit-issuing area. And now they don't release that anymore because there wasn't enough demand I guess, but that's an example. But now you can get other, there's other sources of data that provide insight into that aspect of the economy. So I think it's useful for filling in the white spaces.

The other, I think, key dimension here is that granularity I was discussing. You can actually see kind of under the hood, right? I mean you know the economy is doing X but exactly what are the components that get you to X? We don't really know. And there's lots of different dynamics that occur and a lot of interactions that we don't understand. And I think if we get a better sense of that we'll have a better sense of the macroeconomy, you know what's happening more broadly in the economy because we're getting to see all the churn underneath. And there's a lot of churn. I think people, certainly non-economists, don't realize.

You know, just take a look at the employment data, the hires every month and the people who get laid off and separated every month. It's an economy that is enormously dynamic and lots of change all the time and you don't really understand or see that when you look at that top line number. And I think getting that granularity will give us a better sense of that top line number over the longer run. So I think the more micro data

is very valuable.

And obviously I know, in terms of understanding deep-seated macroeconomic issues that don't lend themselves to big GDP aggregates or employment statistics like the questions that you're grappling with at the Fed around racial equity. I mean that's a pretty difficult question to address and you can't do that with the broader data. You need more granular information to be able to do that. And the third-party data sources are increasingly valuable there. So a lot of the credit statistics can be had along different demographics and that provides a lot of insight into what's going on with these groups and how we might design policy to help them to move forward.

CHAIRMAN JOHN C. WILLIAMS: I compare the data that we have now available to us to back when we were in grad school and the kinds of questions that you can analyze has just grown enormously.

MARK ZANDI: Well, I mean just thinking about the software. I joke with some of my guys that do AI machine learning and I said I did AI machine learning. You know, my first project ever was trying to discern whether a bank – it was Shawmut Bank, I don't know if you remember Shawmut Bank – I think it was a Boston-based bank, whether it was mortgage discriminating or not. The Boston Fed did a paper and said that they were mortgage discriminating and so they hired, Shawmut hired me to look at what the

Fed had done and do my own analysis. And I actually used a neural net to try to discern, you know, figure out interactions. It was kind of AI, machine learning. But the only difference is it took me like three days what people do in like three minutes or 30 seconds now. So the computing power and the software is just night and day. I think that's advanced even more than the underlying data.

CHAIRMAN JOHN C. WILLIAMS: Yes, absolutely. So you've mentioned changes a lot in your comments just a moment ago. So when you think about Covid, you mentioned that smaller businesses in the most recent data that you referred to were actually pulling back a bit while bigger businesses were growing. So how do you think Covid is going to, what kind of long-term changes will it have on the U.S. economy? And to what extent is it accelerating changes that were already underway or maybe creating kind of new industries or ways of doing things?

MARK ZANDI: Yes. I think the pandemic will result in some very significant broader fundamental structural changes. The one that I think is significantly debated and very important is around work from home, work from anywhere. I think that's a fundamental change. I mean just to give you a number – this is based on the Bureau of Labor Statistics data – prior to the pandemic, a little less than one-tenth of the workforce consistently worked from home. At the peak of the pandemic, in the teeth of business shutdowns back in March and April, 35%-ish were working from home. Today it's

somewhere between 20-25%. And I think we settle in probably around there somewhere and it will steadily rise over time as bigger companies like Moody's who I work for now figure out some of the HR issues that are constraining our ability to take advantage of that.

And there are significant benefits to it. I mean I do know and I do recognize that for some companies, some industries there may be, it diminishes productivity growth, but in my view of it, I think it's generally a productivity-enhancing kind of development. And it allows people to move and they're going to move. You know we're going to find people moving from New York to Tampa, from San Francisco to Salt Lake. And the reason they're doing that is that they don't want to commute an hour, an hour and a half every day. They don't want to pay the taxes that they have to pay in San Francisco and New York. And, you know, they don't like the cost of living there and they can, you know, Tampa's not such a bad place to live, or Salt Lake is not such a bad place to live. So we're going to see, I think that dynamic play out to a very significant degree going forward.

And that has, oh, and I should say on the HR front, I meant the one key issue there that needs to be ironed out is if I'm an employee for Moody's and I work in New York and I move to Tampa, should I be paid Tampa wages or New York wages, right? So probably Tampa wages, but that's a pretty tricky thing to pull off. But it will happen. We'll figure

out a way to address that issue. And once we do, we're off and running, you know, people are going to take advantage of that.

And, of course, that has, that one development has enormous implications for lots of things. You know it has the obvious implications for the office market in big, urban centers, for lifestyle, rental living in big towers, single-family housing in suburbs, exurbs, and cities, small cities and towns. It has big regional economic implications. You know who is going to grow more quickly? Who is going to grow less quickly? You know, cost of living, productivity growth, I mean there's just a whole range of economic issues that fall out of that one simple, you know, seemingly simple change.

I'll give you one other, I think, fundamental shift that may go to the inflation outlook. I sense that the pandemic is resulting in a significant increase in the concentration of market share of companies in a broad array of industries. I mean it's most vivid in the retail sector. So you can see, you know, all the mom and pop, brick and mortar retailers, they're failing. The mid-sized, publicly-traded retailers, they're going bankrupt. And what you're left with are these very large retail companies, and you know the names. Just to name names, Home Depot and Lowe's and Walmart and Target, they're gaining market share and at some point they're going to exercise that market power. And I think that may result in higher rates of inflation that might otherwise be the case.

And that dynamic, that concentration of market share is happening in, I think, lots of different industries across the country. And the pandemic, you know that was a trend that was – as you pointed out – a trend that was in place prior to the pandemic but I think the pandemic puts that into hyper-drive. I mean there are many, many other of those kinds of things but those are two examples of how I think the pandemic is going to change the game in some fundamental ways going forward.

CHAIRMAN JOHN C. WILLIAMS: Well, I was going to come back to inflation but since you started on inflation – I was going to come to inflation later, but maybe we should talk about inflation now. So I heard what you just said about markups. Basically, more greater market power leads to higher prices. That's, at least for a period of time, inflationary. At the same time, many economists over the past decade have argued that the movement to more efficient kind of distribution networks and retail networks has increased competition and lowered prices. There's something called the Amazon Effect as a particular example. So how do you see those two balancing in terms of, I've heard a lot of people argue that those have been disinflationary. But you're saying, well, maybe that's going to turn to becoming inflationary. Can you talk a little bit more about that?

MARK ZANDI: Yes, sure. In fact, maybe I'm going to say something provocative, just may be a little provocative. I mean I think one of the biggest surprises to me on the



other side of the financial crisis, during that long economic expansion after the financial crisis was how low inflation remained and how low interest rates remained. I mean core PCE inflation got to 2% but didn't stay there very long and we never consistently were above the 2% inflation target that you managed to, on the Fed.

The same with interest rates. I mean, you know, the 10-year Treasury yield – I'm speaking from memory, but I think the highest the 10-year yield ever got was in late 2018, you know, on the other side of the Trump tax cuts, right before the tariff wars kicked into gear, when we got to like a 3% 10-year Treasury yield. That was about as high as it got as far as I recall. So that surprised me.

I remember you invited me to a symposium on inflation at the Fed, the San Francisco Fed when you were President of the San Francisco Fed, and, you know, I was arguing then that inflation would pick up. I can't remember when that was. It was probably, I don't know, 2014, 2015, sometime in that period. And I was arguing, as the economy came into full employment, you know, kind of the standard textbook kind of way of thinking about things, we'd get inflation picking up. And we didn't. And, of course, ex post I can give you good reasons why that didn't happen. I have no problem doing that. But regardless, I was wrong.

I would go so far as to argue, and this is the provocative part, that on the other side of

the pandemic I think the big surprise is going to be how high inflation and interest rates are, at least compared to what we're accustomed to. And I'm not arguing, you know, 4% or 5% inflation. I'm arguing, you know, we might see 3% inflation at points in time. I think that is a real possibility.

I mentioned one reason for that and that is, you know, this concentration of market share, which I think I would argue results in higher rates of underlying inflation. If you have market share, your price increase, your standard annual price increase will not be 2%. It'll be 3% or 4%, just because you have market power. And I can see that as a businessperson, that is what happens when you have market power. Every single year you charge, you raise your prices by more than you otherwise would have. So I think it's not, I don't think it's temporary. I think it's actually a fundamental shift in underlying inflation dynamics, pricing dynamics.

Second, I think it's just the way you're now going to conduct monetary policy. And again, from my perspective, you know, the change in the monetary policy framework is entirely appropriate. I mean from my simplistic perspective it's just arithmetic, right? I mean if you want inflation expectations to be 2%, you've got to have inflation above 2% for some period of time, if you have a business cycle, to get to 2% inflation expectations. If you don't do it, then you're going to be below 2% and you're never going to get, you know, sustainable 2% inflation. It's by definition that you've got to do

this.

So I'm all onboard, but I do think once you move in that direction, it's very difficult to draw a nice line from I'm a little bit above 2% and I'm going to get quickly down to 2% and life is good and we move on. Generally life doesn't work that way. And once you get it above 2%, you know, inflation expectations become a little bit more difficult to manage and I can see that creeping higher. And that's another reason why I think inflation dynamics on the other side of this pandemic, because of the change in the monetary policy framework, are going to be different than on the front side of that change in the policy framework.

The third reason, and this...sorry, John, go ahead. Did you want to say something?

CHAIRMAN JOHN C. WILLIAMS: No, you go ahead and I'll ask...

MARK ZANDI: Okay, I want to mention two other things really quickly on inflation dynamics and then I'll stop. The third thing – and this may be more temporary but it depends on timing – I do think the supply side of different markets are getting rationalized in the pandemic. You can see that in commodity markets. Oil is the best example. Less production in Saudi, Russia, Canada, fracking, the supply side comes in. On the other side of the pandemic, we will see a pickup in demand. That'll bump up

against the supply. And we're going to see price spikes. So if you told me, you know, oil, which is going for, WTI Brent, \$40/\$45 a barrel is going for \$80/\$85 a barrel, you know 12, 18 months from now, I don't think I'd argue with you. And depending on the timing of those price spikes, that could get conflated with all the other dynamics that are unfolding in terms of inflation and just be a catalyst for higher rates of inflation going forward.

Finally, a more fundamental reason and then I'll stop, is I don't think underlying productivity growth – going to your point about Amazon – is any higher today than it was during the ten years after the financial crisis. I think we see level shifts in productivity. We just experienced a level shift – we saw one right after the financial crisis – because businesses don't like, you know, laying off workers in good times. It's just not something they want to do. But in bad times they, I'm going to use that opportunity, I get a level shift. But going forward, I think the rates of productivity growth will remain as depressed as they were prior to the pandemic.

And I think the key reason for that is simply demographic. You know, based on some work we've done, the aging of the population, you know, our cohort, the Baby Boom cohort, is a significant weight on underlying productivity growth. And that productivity weight, excuse me, that demographic weight is going to remain in place for the next ten years because we're not leaving easily, you know, the Boomers are going to be around for a little bit longer. And so that means slower rates of productivity growth, which all

else being equal, would help to support, you know, higher rates of inflation. I'll stop there.

CHAIRMAN JOHN C. WILLIAMS: So I'm curious. You're talking about inflation; how do you think about the Phillips Curve? You said, you talked about a textbook view or a traditional view. Do you still believe there's a Phillips Curve or is a different Phillips Curve? How do you think about that? It's a topic that keeps coming back every decade.

MARK ZANDI: No, I do. I think that's the workhorse of, you know, the models that we use. I mean we have a large-scale, structural global econometric model similar in spirit – the last time I looked – to the FRB/US Model or the CBO model or what other central banks do. We use this model for, you know, the key thing is for stress testing. Banks use it for their, all across the globe, they use it for loan loss provisioning, you know, this adoption of CECL accounting here in the U.S. at the beginning of the year and IFRS 9 overseas. So that requires, you know, forward looking economic scenarios that are consisting, rooted in assumptions around policy. And so these models are workhorse, are used for those purposes along with many other things.

But at the core is the Phillips Curve still is alive and well and it's still very useful. Now, the relationships have changed over time. I mean, you know, everyone understands that the shift in inflation expectations has had an impact on the relationships embedded

in the Phillips Curve, but those relationships still hold. In fact, you know, going back to that San Francisco symposium, in my view if we didn't have those tariff wars, the Phillips Curve would have been plainly obvious to everybody. You know we were headed in that direction. The economy was coming into full employment and we were going to see inflationary pressures, wage pressures and inflationary pressures start to develop in a much more fulsome way.

But the trade wars, in my view, kind of sucked the energy out of the economy beginning in 2019 coming into the pandemic. I mean you may recall manufacturing, transportation, the Ag sectors were in a recession. They were in recession, you know, coming into the pandemic because of those tariff wars, those trade wars. And I think that short-circuited the typical dynamics that we would have seen, kind of end of cycle dynamics that we would typically have seen and the Phillips Curve would have become more obvious.

In fact, you know, if you go look, one way of looking at it is go look at states. You know, take a look at state level data. You have enough data to be able to do that. And the Phillips Curve is clear as you can see it in the data. So I think it's still a very useful tool. You know, you can't take it literally and it's not written in stone. It's not granite, the relationship. It changes like every other economic relationship. But, you know, I still find it very, very useful in understanding inflation dynamics and business cycle dynamics more broadly.

CHAIRMAN JOHN C. WILLIAMS: So, Mark, I can't believe we've gone this long without talking about fiscal policy. So clearly that's the big topic of the day. I would like to hear your views on how has the fiscal support, whether the CARES Act or more generally, why has that been important or how is that working? And how do you do think about fiscal stimulus, fiscal policy in the context of a pandemic? So kind of would like just to hear how you're thinking about that.

MARK ZANDI: Yes, sure. Well, I think up until a couple, three months ago, probably around August, July/August, I thought lawmakers, the Trump administration and Congress did a fabulous job in responding to the pandemic, just like the Federal Reserve has done a fabulous job in responding to the pandemic. I mean we learned a lesson from the financial crisis and we were better prepared because of the financial crisis.

I mean you were able to resurrect a range of credit facilities and invent some new ones quickly. In my view, that was the single most important aspect of the monetary response to the crisis. I mean it effectively erected a firewall between the chaos in the economy and the financial system which is a big difference from today compared to what happened after the financial crisis.

But on fiscal policy, the CARES Act was, you know, it was massive, right? I mean it was

\$3, as I recall, \$3.2 trillion – it depends on how you measure it, but in terms of CBO scoring, impact on deficit, forget about some of the liquidity provisions, you know, the equity backstop for some of the credit facilities – \$3.2 trillion. You know that's 10, that was what, almost 13-14% of GDP. That's a lot of money. And so very, very significant policy response. And that helped, you know, the economy navigate through the early part of the pandemic, through July or August, very gracefully. In fact, you could look at the income of households in Q2 going into Q3, it was higher than even, than it would have been otherwise, even with the job loss and all the cuts in pay.

So it was, it was PPP money for small business, the money for airlines, healthcare, some money for states, all excellent policy. I mean if I were King for the Day, I probably wouldn't do exactly what was done, but I'm not King for the Day. But extracting from that, I thought very, very well done.

I have to say, though, I'm increasingly disconcerted by the policy response. I think that the support to the, the fiscal support to the economy is largely faded. By the end of this year, on December 31, it'll be entirely gone. I mean there are still some things in place. You know, you've got rental eviction moratoria, you have mortgage forbearance, the Treasury equity backstop to the credit facilities is in place in most of the facilities through the end of the year. And that's going to expire and then, you know, what happens to those credit facilities?



But you get to January and there's no additional fiscal policy response, we've got a big problem. I mean think about what January is going to feel like. It's miserable anyway here in the Northeast, but you've got the pandemic raging. You've got increased social distancing because of the pandemic and more restrictions on businesses and no additional fiscal support. Evictions will be; landlords will be evicting people again because the rental eviction moratoria will be off. And those credit facilities, if they don't get, get renewed or extended, we've got a problem there.

So, you know, I think it is incredibly, increasingly irresponsible for lawmakers not to come forward. And I think it's going to be increasingly important – because it doesn't seem likely politically that we're going to get anything done in the lame duck – that we get something soon after President Biden is President, you know, come January 20. And, you know, just like Obama passed the Recovery Act in February of '09, I expect a meaningful, sizable package in February 2021. That is key to avoiding a double dip. In fact, I'll go so far as to say if there is no additional fiscal support, even given the good news from Moderna and Pfizer, I think we go back into a recession. We have a double dip recession in the first part of 2021. I think that will be difficult to avoid if we don't get additional fiscal support until we get that vaccine.

CHAIRMAN JOHN C. WILLIAMS: And when you think about, so let's assume that we get through this period of the next so many months and we get vaccines and

therapeutics start to come online, thinking ahead a little bit beyond the short term, what does the recovery look like after that? I mean what's the, you know, kind of second half of 2021, 2022 look like, assuming we've got some actual vaccines and they're being distributed and things like that? I mean is this going to be a normal recovery like we've seen in past ones? Is it going to be different? Is there a letter you want to assign to us because economists seem to love to describe recoveries and recessions with, you know, a V-shaped or W-shaped or something? So how do you think about that?

MARK ZANDI: Well, I think we'll kick into higher gear. You know, I do think once we feel collectively like the coast is reasonably clear on the pandemic, we will unleash some pent-up demand for various consumer services. I mean people will travel more. They'll go to restaurants. They'll go to ball games. You know, do all the things that we want to do. Go visit family. My dad and mom haven't seen my kids for, what, nine months now, ten months. That's hard. And so people are going to want to do all those things and that will help to support growth. And there's also a lot of healthcare that's not getting done, you know, personal services. I haven't been, I have my own little gym here, but I'd definitely go back to the gym and working out there. Although I don't know, I got a Peloton so that's been pretty cool. I highly recommend it if you're able to do that. But that will generate more growth.

And I do think there'll be a bit of an inventory cycle. I mean we have been; we've drawn

down inventories very significantly since the pandemic hit. The inventory draw-down is over but we haven't, at least through Q3 coming into Q4, we haven't really rebuilt inventory. We've got to rebuild those inventories. The global supply chain has to get up and running fully again. And then, of course, globally the rest of the world will come back to life. APAC is already engaged. They've handled the crisis marvelously. But Europe will start to come back. We'll see more global trade. So we'll get stronger rates of growth and, you know, we'll come back.

But in my baseline scenario, where I'm assuming the pandemic is over mid-next year, roughly speaking, and we get another \$1.5 trillion fiscal package in February, we don't get back to full employment until three years from now, until the end of 2023. So that's not a V, that's a slog, right? That's going to take time, you know, to get fully back to where we were. The good news, though, is that's not, this recovery is going to be better than the recovery after the financial crisis, right? I mean because that took us, by my calculation, eight years to get back to full employment.

If I'm saying three, maybe four years this go-around, that's half as much. And I think that does go to, a number of reasons, but most importantly what I said earlier about the financial system. The financial system has been able to navigate through the pandemic reasonably gracefully. The banking system is on a rock, you know, because of what we went through during the financial crisis. And even the shadow system has held up well

largely because of the credit facilities that you and the Fed have erected. And that, of course, is the big difference between the financial crisis when the financial system was, that required a bailout and it took us, you know, we had reforms, the system had to raise capital, liquidity. It took a long time to get back to full employment. So the good news is, the bad news is it's going to take us three or four years to get back to full employment, the good news is it's not going to take us eight years like it did after the financial crisis, I don't think.

CHAIRMAN JOHN C. WILLIAMS: You said full employment a whole bunch of times. I'm curious, what's your definition of full employment?

MARK ZANDI: Good question. In my modeling, it's somewhere between 4 and 4.5%. I don't think it's 3.5%. I mean I know we got there and there was a lot of debate about whether we could go even lower. But again, I don't think that was sustainable and the only reason why we didn't see that was because of what the tariff wars did to growth. I think we would have found out pretty quickly that we couldn't sustain 3.5. But I should be humble here, you know I could definitely be wrong about this. And I think if you are sitting on the Federal Reserve, you know, you have to be humble and you have to look around and make sure because the last thing you want to do is not get back to full employment and make sure you get to the lowest unemployment rate that you can possibly get to.

Because at the end of the day, you know, we're going to have a lot of people that are hurting. You know the income and wealth distribution issues that were massive problems before this mess are now even worse after this mess and we've got to really be thinking about, you know, those folks. Otherwise, it's going to undermine the social fabric, the political system, and ultimately it's going to lead to bad economic policy. So we really need to think about this. So I'm all for testing the limits on full employment. And maybe 4, 4.5% is wrong but that's, you know, if you go back to the modeling that we use, that is the number that is in the models for the U.S., that we're using for full employment. Very CBO-like.

CHAIRMAN JOHN C. WILLIAMS: We've only got about a minute left. Do you see that kind of long-term damage from the pandemic period? Or do you see, you know, given your relatively optimistic view that we'll get back to full employment, that the economy will get back to full strength, that this will be the same kind of economy that we would have had otherwise? I mean how do you think about hysteresis or long-term effects?

MARK ZANDI: Yes, I think there's some scarring here. I mean we get back to full employment as fast as we do, in part because I have lower labor force participation, right? I mean before the pandemic I think we had participation, 63..in fact, I think we had 63.5% was the peak participation rate. And at the end of 2023, going into 2024 when I get to a 4.5% unemployment rate, the participation rate is at least a full point lower than

it otherwise would have been.

So I view that as scarring, right? Because you just lost a percentage point of your workforce to, you know, potential workforce to the fact that the pandemic hit and it scrambled things. I'll give you a statistic, a very rule of thumb statistic but we're still down 10 million jobs from the pre-pandemic peak. I think about half of that, 5 million, are people that are now on permanent layoff, permanently lost their job. And that doesn't include the several million people that have stepped out of the workforce because of pandemic reasons. You know, some will come back in, others will not.

So, yes, I think there's some significant scarring here that will take a long time to rectify. And it does go back why it does make sense – to use a phrase that's been used in the past – why you want to operate a high intensity economy to try to, you know, address those hysteresis, the kind of scarring that's occurred in the economy.

CHAIRMAN JOHN C. WILLIAMS: Mark, we're out of time. Thanks again. It's been a great conversation. Thanks for sharing your insights with us today. The best part, Mark, is you made lots of predictions. So we'll get you back at The Economic Club of New York in the future to test those predictions. I really appreciate that you did that, but again, thanks so much.

MARK ZANDI: Yes, thanks so much for the opportunity. It was so kind. I'm honored that you would take the time to interview me like this. And I'll end this way, I strive to be 51% right, John, 51%, so we have the bar set appropriately.

CHAIRMAN JOHN C. WILLIAMS: Sounds great. Okay, well, I'm just going to give a quick recount of who we've got coming up, speakers that we've got lined up. We've got, on Thursday we'll have Jay Clayton, Chairman of the Securities and Exchange Commission. We've got Jonnel Doris, Commissioner of the New York City Department of Small Business Services, LL Cool J, CEO of Rock the Bells, Mellody Hobson, co-CEO and President of Ariel Investments. So please keep an eye on the website and we'll be sending out emails to give you updates about speakers for the rest of the year and obviously into next year. So thanks again everybody for joining our conversation today. And we hope that you can join the post-event discussion and network opportunity which begins, I think, right now. So please see the link in your email. Everybody have a great day. Stay well.