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Well, hello Jeremy Siegel, Professor. I am so pleased to meet you. This is the first time that we're having a one-on-one. Both of us have been in the news quite a bit for the same reason recently. But before we go into that, Professor Siegel, would you mind giving us a sense of your background? I have your bio here, but I always love to hear the emphasis on certain parts of the career that a person takes us through so that we can dwell on it a little bit.
Yeah, that's a very nice question. I did my undergraduate work at Columbia. I'm actually from the Midwest, from Chicago, but when East did undergraduate Columbia math and economics, I didn't take it to my junior year, but I discovered I loved it. I went and got my Ph.D. in economics at MIT, not in finance, where I specialized in monetary theory and policy.
My first teaching position was at the University of Chicago. I was very honored to be a colleague of Professor Milton Friedman, got to know him very well, and remained friendly with him after he retired. It was my first teaching position. He was first four years, and it was his last four years. Then I got an offer from Wharton and was there for 45 years in finance. I taught macroeconomics, but I was always interested in the stock market, and I wanted to meld the concepts of macro with what is the fundamentals of the valuation of the stock market. I was there 45 years. I retired a year ago, July, from active teaching at Wharton. I still do a few exec ed programs, but mostly write and lecture. You're probably busier now than you've ever been, judging from what I see. We have something in common. My father wanted me to take economics, and I, therefore, avoided it when I first got into college. During my second semester at UCLA, actually, I took a course. I loved it, trying to figure out the way the world works. I just found it fascinating. In the early part of my career, of course, Chairman Volcker definitely was taking a leaf from Milton Friedman's book and really focused on money supply, so loved to get into that a little bit. Then the third point you made, finance and macroe.
You know, I moved into the business. Art Laffer was one of my mentors at USC.
He was there at Chicago, and he was a colleague of mine, and I got to know him quite well at Chicago when I went there in 1972. Yes, yes. I thought so. I got to know art pretty well, and loved his classes. But when I got into the business in the early 80s, macroeconomics was the only thing that mattered, a little bit like now. The Laffer theory was being tested, cut taxes, and you won't have a deficit. Of course, we were in a recession, so that kind of interrupted that point of view for a time. But then what happened in our business is macroe became sort of a bad thing. We moved into a just study company by company, and you can build up what the macros are. Now we're back to macro seem to be the only thing that mattered. So I'd like to take you through your journey a bit. Well, first of all, as you

reflect on a monetarist theory and have watched it in practice, work, maybe not work, just what are your thoughts about that? And especially now that we're really down to 0% money growth on a year
over year basis, practically. Negative. Even worse, Kathy, than 0%. It's really shocking.
As you know, Milton Friedman emphasized the important concept of money was the M2,
the total liquidity that people had bank accounts, savings, checking,
money market, mutual funds, CDs, all that. And the money supply increase that we had in 2020
was the greatest in 150 years. And that just blew my mind. And I knew there was going to be,
by the summer of 2020, knew there were going to be a lot of inflation. And I know that all that
talk by Chairman Powell about, you know, that this was transcendent and all that was just nonsense.
And I was one of the earliest to predict it. And then suddenly, in 2022, by March, from March
until now, we've had a decrease in the money supply. And I went back to the monthly data.
And since World War II, we have never had a decrease in the money supply. So they went from
super accommodative to ultra tight. It's like going 150 miles an hour,
you know, 75 miles zone, and then slamming on the brakes as hard as you can. And, you know, I just,
I think there's been terrible mistakes both ways.
Yeah, I just want to pick up on that a little bit. You know, what I've been saying, and I just
love to get your point of view on this, if you look at what Chairman Volcker did in the early 80s,
you know, inflation really got its start in the Vietnam War and great society in the 60s and
going off the gold exchange standard in 1971, OPEC, and then, you know, all hell breaks loose.
So that was the problem that Chairman Volcker had. And what he did is he raised interest rates,
he doubled interest rates from 10% to 20%. Now, I look at what this Fed has done. And they had,
by the time they recognized it, a 15 month problem, not a 15 year problem. And they have
taken interest rates up 16-fold, not two-fold, 16-fold. And many people dismissed that out
there. Oh, well, the base was so low. And that's the whole point. You know, you got expectations
after 10 years post 0809, low interest rates for a long period of time. And then boom, what do you
think the ramifications are going to be now? I think you believe we're in a recession or close
to, so. I think inflationary expectations, Powell was right, never became unanchored
while they did during the vocal period. And that required that increase all the way up to 20%.
Secondly, we are in secular decline of real interest rates. Over the last 20 years, real
interest rates around the world have declined. I mean, it's almost hard to believe, but the
10 year tips yield in 2000 was nearly 4.5% positive. And it steadily has gone down. And I've looked at
tips yields around the world. They've all gone down, which means that you're perfectly right.
We don't have to raise people talk about raising them 3%, 4%, 5% above year over year inflation.
That's not necessary. The whole structure of interest rates is lower. So this is a violent
increase in real rates. Don't forget the tips rate started this year at minus 1.5%. And shot up to
over 1.5%. I mean, a 3% increase in real yields, and you had a risk premium on stocks to that,
you know, that'll depress. Even if cash flows go up, that will depress prices. And of course,
as you say, the longer the duration, the more it will be depressed. It's a violent increase
in real rates. Very truthfully, I think the equilibrium tips rate is about zero on 10 year.
And I actually think the nominal Fed funds rate in a 2% inflation world is something like 1.5%.
I actually believe slightly negative real rates on the short end. So, you know, moving it up as
they're talking about, you know, into the fours or even five rates is way, way above equilibrium.

And when we have just overwhelming evidence that the prices of every sensitive commodity, real estates, cargo rate, shipment rates, oil, other sensitive commodities, have all gone down, this idea that we haven't made sufficient progress against inflation is incredulous to me.
Yeah. One of the prices that I've focused on, and I'm wondering back in the day, if Greenspan really tied monetary policy to it, it was the gold price, which was in a range for two years, peaked in August of 2020, returned to test that earlier this year, and now has broken below this 17, well, I guess it's right at the low end of the 1700 to nearly 2100 and looking at copper, breaking below the four to five range, just one commodity after another, breaking down.
So, that's upstream. That's upstream in the pipeline, and that will move downstream into the PPI and CPI, but even downstream at the consumer level. We're beginning to see, because overwhelming
inventories, 30, 50% discounts this holiday season, which surely are going to get into the price indices. I'm wondering, there is a concept out there that you will probably have a point of, you most certainly will have a point of view on. It's a little esoteric, but the velocity of money, my experience just watching it over these last 40 years, is that it tends to go up when people expect inflation. And this time around, it has been stable for the last two years, having been in a decline since 1997, really, in a trend since. I put together this negative money growth, and now people seeing discounts and saying, well, I don't have to buy now because prices aren't going
up, they're going down. How serious do you think this recession will be in the next year or so?
I believe that if the Fed continues to raise, and of course, we've had yesterday a minor pivot there with a welcome pivot, the truth is getting slowly through this idea of not going 75 in two weeks and going 50. But I was very disturbed. He said, we're not done, and we're going to continue to raise in 2023, not necessary, in my opinion. My feeling is, they don't even need this 50, but okay, what's thankful, it's not 75. And we're going 50. My feeling is, they should just stop and watch because I think if they watch what's going to be happening in the economy, we're going to start lowering rates. I actually said a month ago on the networks, kind of shocking people, we may see a two-handle on the Fed funds rate by the end of next year, not a four to five handle the way Fed, the way Fed Powell talks. I really think we're going to see the slowdown and in prices. As you say, all the sensitive commodity prices, the copper prices, real estate prices, really critical are going down. I actually think real estate prices are going to go down 10 to 15%. Not as much as they went up. We're still going to be higher than pre-pandemic. But that's a real important part. Housing is 40% of the core consumer price index. And so it's in a downtrend, a strong
downtrend right now. And so they can't ignore that. You're right about discounts. We had wholesale inventories, retail inventories that firms are clearing out. I think this quarter, I know the Atlanta GDP now thinks it's 4%. I don't think it's going to be 4%. I mean, it's closer to 2%. And GDP this whole year is almost near zero. And if the Fed stays at, stays, keeps that Fed funds rate in the upper fours or five, absolutely guarantees a recession in my feeling in 2023 and 2024. If they pivot and see all this, we still have a chance for people called a soft landing, that's sort of a code for saying maybe not a severe recession. Don't forget the first two quarters of this year, we had negative GDP, which in a certain technical, narrow technical term was a recession already. So it's kind of weird, are we going to

get a double recession? There's some very unusual things, Kathy. We added four and a half million workers to the labor force this year, and we had virtually no growth in GDP. That's unprecedented. There was a collapse of productivity in the first two quarters of this year that we have never seen before, nor has Fed power or the Fed ever tried to explain it, which I think is critical if you're going to actually implement monetary policy. So if we get a productivity bounce back, and these workers produce rather than not, what were they doing? We could put downward pressure further on prices, an upward movement of productivity, which would be good actually for stock prices and profit margins. Oh, it'd be spectacular. One of the, as far as labor, one of the reasons perhaps that we've been surprised on employment here is during COVID, it was so difficult to get workers, and even afterwards, so difficult to get them, that just like with inventories, they double and triple ordered, so they would be sure to have the inventory. Now they have too much. I think they kept on labor, even though at the margin, the profitability is suffering, because it took so long to get that labor. So I just wonder if there will be a discouragement, actually more rapid in the next year, as companies say, oh, my margins are getting destroyed. So that would compound the recession that you're talking about, right? Kathy, I think you're spot on this, and I've been talking about it. Because of the great difficulty right after the pandemic, firms over hired, and then workers often didn't produce, but then they challenged their bosses, well, fire me, think you can't get anyone else. So they kept them on. But as soon as firms begin to see, you know what, I do have some choices out there, there could be a big discouragement. And we could really see labor growth negative. In other words, payroll declines next year. Now, the interesting thing is that as this year, we had enormous growth, 4.5 million more workers, but almost zero GDP. Next year, we might actually have a loss of workers, but maybe some growth in GDP because they're getting rid of workers that really haven't been doing much with very low productivity. You know, we've heard about this quiet quitting syndrome, this idea, it's related to, you know, you can't fire me because you can't get another worker. So hold on. But I don't think that's going to cut it in the long run. And firms, once they see, you know, I can't get someone that's going to produce and get rid of all these people. And we could see a little bit of a flip side of this very unusual situation in 2022, which was, as I say, big labor market growth on numbers, very poor GDP. We could see poor labor market growth, but maybe better
GDP by keeping the more productive people. Yeah. You know, it's interesting as we went through COVID,
one of the things, one of our mantras was innovation solves problems. As you may know, our focus is exclusively on disruptive innovation in terms of research and investing. And certainly innovation helped get us out of COVID sequencing the virus, getting tests, getting a vaccine, so forth, digitalizing the world, digitalizing our lives and so forth. This labor conundrum that companies were facing, and now their margin, the hit to their margins as the productivity suffers, is a call for more innovation, more automation. And we're seeing breakthroughs in artificial intelligence that even we are surprised to see the progress. You know, even in terms of programming, programmers now can use co-pilot and AI helper. And actually, before they start, have 30% of a program written. So that's a huge increase in productivity. So I think that what you just said about companies having to address their margins effectively as productivity goes down is going to cause another boom in innovation as automation with industrial robots and autonomous

mobility evolves here. I think we're at the dawn of a major increase in productivity if policymakers don't get in the way. Does that ring true to you at all? Well, you know, it has shocked me. You know, as I know, the first two quarters of this year, the fall in productivity was the greatest in any two quarters since World War II. And it just shocked me. I mean, I mean, and look what we're doing, you're talking about innovation, you know, we're going through, you know, a Zoom type of meetings that although they were technically possible before COVID people weren't implementing them. I mean, I've been able to do so much more. You know, at first, all conferences went online. I was very effective with those online conferences. And now I can do so many of them. It's been a tremendous boost in productivity. You don't have to fly people in. I mean, you know this, you know, you're the expert on this, but you're absolutely right. I mean, I had thought that the whole internet was going to spark a boom in productivity because of the fact that it could, it enables people to share knowledge so easily and communicate. I mean, it's true that Zoom is not as good as really being in the room, but it's a lot better than a telephone. And I mean, it does allow for collaboration. It does allow for looking at body language when you make a suggestion. How is the other person reacting? I mean, there's so much more than just the words that people use in terms of responding to new knowledge. I think that productivity is going to bounce back. The lost productivity had, again, something to do with overhiring workers believing to say, dare me to, you know, to fire me. This idea, you know, work from home. I mean, I'm, you know, I'm putting, I say I put in eight hours, I'm putting in five hours, but you can't really fire me. I think a lot of that is going to turn around. And because firms are going to see that they have alternatives and they can get other workers. And that's why I'm not as pessimistic about the profit picture or even, you know, negative GDP growth. Again, we could just see a reverse of 2023 or 2022, big labor growth, virtually no GDP. We could have negative labor growth in 2023. And GDP could surprise us by being up two and 3% because of the burst of productivity.

Yeah. So I'd love to, in terms of thinking about the period we're in, I know that most economic statistics are the best economic statistics, highest quality or post-war war two. But we've gone back earlier and taken a look at inflation interest rates during two other periods. And I'd love to get your point of view on which one of these is more right. Because there are echoes of both of these periods now. The negative one is 1929. When the Fed was tightening, inflation wasn't
a problem. They just wanted to squash a financial speculation. So there's somewhat of a similarity there, but maybe a smooth holly was what really many people, many economists think, really tipped tipped us into the depression. So tariffs and protectionism. And the echo of that might be the CHIPS Act. We know it's for national security reason, but CHIPS go into everything. And I know this is just at the high end. And so I just want to, while we don't think this is the higher probability, I'd just like to get your point of view given you are a student of economic history.

Yeah, I thought smooth holly certainly was terrible. I think tariffs are terrible.
You know, my biggest gripe with Trump's economic policy was always on tariffs.
I remember, I, you know, I got a call from Andrebus after Trump became president and he said, Jeremy, do you want to, we invite you to be head of the Council of Economic Advisers, which is a prestigious position. But that position requires you to support the president's proposal. It's very different than the Fed, where you have supposed independence

and you can't speak out against the president. And so I declined it because I was really against Trump's tariff policy. I do think, as I look back, and again, because of my studies with Milton Friedman, that the principal cause of the Great Depression was the failure of the Fed to prevent the total collapse of the banking system. And the money supply decreased by 30% from 1929, 1933. The Fed stood by and let anything collapse. They shrugged their shoulders and said,
you made bad loans, you should all collapse. And of course, common people lost all their savings. There was no federal deposit insurance corporation to stand that. And it just drove everyone into poverty. It caused 30% deflation to something that's unimaginable. I mean, we're talking about getting inflation down to 2%. It was 30% deflation. Now, smooth holy on top of that, certainly didn't help. I think it hurt. But I would put the Fed's failure to prevent the collapse of the banking system. In fact, remember, the Fed was formed because JP Morgan, in the panic
of 1909, kind of single-handedly saved the banking system by lending. And the government said, listen,
we don't want a private bank there to be the one that saves the US. So let's form a central bank for that purpose. And they failed. They totally failed on that first step, which is just inconceivable. I mean, that was when Freeman won the Nobel Prize in 1976 for his book, Monetary History of the United States and the chapter. And they're called the Great Contraction, which is so damning on their policy. It's just so crystal clear when you look at the data what happened. Now, you're absolutely right. Those tariffs on top of that was just adding fuel to the fire of the terrible policies that were pursued during that period. And the tariffs are a negative policy. I don't know enough honestly about that. I know certainly about the chips policy. And I've read both ways. I have not formulated a strong opinion. But in general, encouraging world trade, encouraging globalization is still very positive. We have to prevent the stealing of intellectual theft that we know China has engaged in. But I am worried about saying we can just shut off China. I mean, China's economy is as big, if not larger than ours, four times the population potential for tremendous growth. Xi's policies are terrible. There's some sign that he's beginning to ease up on that. But globalization is still, in my opinion, something that is very positive. And I am worried when we talk about getting into a cocoon state and oh, we can do it all ourselves. I mean, the world of economics is specialization. And trade basically created the trade routes going back to the Greek and Roman times were critical. The Silk Road and trade was so important everywhere.
And you can't shut it off.
Right. And as I recall, I mean, as I recall from my studies,
smooth holly, when it was first put in place, there really wasn't too much of a reaction.
I mean, news didn't travel very quickly back then. And so the combination of the Fed, as you say, and smooth holly. So echoes of that potentially. But then there are echoes of another time as well. I'd love to get your view here. The late 19 teens. So we had a pandemic, the Spanish flu.
We had a war, World War One. Now, both of those were much worse, I think, than what we are going
through now. But there are echoes, the invasion of Ukraine, the coronavirus. But one of the things in, again, looking at the data back then, we saw that and there were probably massive supply chain

problems. Again, news didn't travel very quickly. And so inflation at its peak got to 24% in June of 1920 on a year-over-year basis. But by the next June, June of 21, it was minus 15%. And I am wondering and, you know, I think we've been through a massive supply shock. And actually,
two of them, the coronavirus was one that caused massive disruptions and the war in Ukraine as well. And I wonder if we will be looking back at this as those are unwinding or diminishing in terms of their impact on the global economy. If we're not going to be in a similar situation, especially now that money growth has gone to zero and looks like it's going to go, well, you said it is negative. I think it will be negative when the official reports come out. Demand deposits are already negative. I'm wondering if we'll be in more of that kind of an environment where inflation goes from this 8% to 10% wherever metric you're using down to minus something. Is that possible in your mind? Well, there's a big difference. Remember, Kathy, that we were on the gold standard back then. You know, it was Roosevelt that took us off. So eventually, that big inflation that we had post-war and speculation and disruptions and policy was reversed because the money supply was brought back down to the level of, by the way, that was the third biggest money supply increase. The first biggest was COVID and you're right in causing the biggest yearly increase in M2 money supply was 2020. The second was 1943, World War II. And the other one, I think, was 1917. And World War I. But we were obligated to bring that money back down because we were on the gold standard and we had to maintain the parity. So now, the big difference today is we had a 40% increase in the money supply from March of 2020, the beginning of COVID when it struck, until March of this year when it stopped dead. And that's not going down. I mean, it was like the biggest pivot I'd ever seen on that. Now, it's gone down very minor. We are not going to go down to the pre-COVID level. That would require unbelievable tightening by the Fed. I mean, we have to accept the inflation that, you know, again, when you hear about what the Fed says, it isn't, we're going to bring back the price level of 2020. We just, you know, we've had this bump of inflation. Now, we want to get it back to 2%. But we're not talking about getting it back down. And I think that would be a terrible mistake because it was a very severe recession. But it was, again, on the gold standard. Today, no one would expect that. Again, Volcker, we had that big inflation. We just brought it back down to 2%. We didn't undo the inflation of the 70s. Because once we broke the link with gold and you have, you know, a fee at money, you don't obligated to bring that money supply back down. You can just say, uh-oh, I produced too much. Let's reset. Let's get it back to a 5% growth, which is what I think is consistent with a 2% inflation rate. That's what I think the Fed should do now. You know, lower the interest rate, get that money growth back to the, we had, Kathy, for 34 years from the mid-1980s until the year of the pandemic, we had 5, 5.5% money growth, very steady. And we had 2% to 1.5% inflation. That's what we've got to get back to. And to get back to that means you can't keep on having this money supply go down. That's just going to be way over tight. We have to ease up, get that back to the 5% growth. That will get it back to 2%. If there's a productivity burst, that's all the better. That will lower inflation even more, but it'll be from the supply side. It won't be because we're just over tightening and killing the economy.
So when you say negative money growth, you're looking at it from March. And yes, from March to now, it is astonishing that it is happening in the absence of something like the gold standard, right? Yeah, it is. It's never happened before. I mean, we've never had this

decline again. I mean, we weren't, we're not obligated to get back to that standard.
Remember, back in the Civil War, we went off the gold standard temporarily to fight the war,
and then we pled to go back on it. And within 10 years, we redeemed all our gold, what's called
greenbacks, which were not backed by gold. We redeemed them at gold at the original.
And it required a long period of deflation, but the gold standard reigned supreme back then.
We're in a different world. So we don't have to go back to that, squeeze the economy down to death
to get it back to some sort of parity. And by the way, even the most hawkish Fed members have
never suggested we're going to get back to the price level level that we did. It's getting inflation
back down and accepting, well, they could have prevented it had they not burst it out so much,
we could talk about that, but accepting what has already occurred in the pipeline.
But they, you and I both believe they are making a mistake now, taking money down.
So it wouldn't surprise me to see inflation go well below 2% because of this mistake, especially,
I mean, there could be a good and bad reasons for it. If you're right on productivity,
inflation certainly could go much lower than people are expecting right now, right?
Yeah, let me tell you, Kathy, I took, I put the true housing numbers, not the faulty housing
numbers the Fed uses, which is way lagged. And there's been widespread discussion increasing.
I mean, I've been bringing this up for two years, the way the Fed confused housing prices is way
outdated and way lagged. They underestimated in the CPI housing inflation in 2020 and 2021.
And now they're way overestimating it because again, they're lagging and they're bringing
in increases that occurred a year ago. But my point is, I put the case shower, the apartment list,
the Zillow, the current rent, current house price index is not the faulty
Bureau of Labor Statistics index is in. And do you know that core inflation over the lack,
core, which is what Jay Powell quotes so very frequently, core inflation has been negative
over the last two months. Instead of this, you know, positive because of the lag housing data
that they use, it's actually been negative. So in some sense, we are already in a negative
inflation, a mode already. Yes. And one other thing I just want to mention before we leave
history, and that is in the 19 teens, we were in a period of innovation like we had never seen
before, telephone, electricity and automobile. And one of the reasons I started ARC is because I
believe we're in a actually more profound period of innovation with, you know, the genomic
revolution,
robotics, energy storage, artificial intelligence and blockchain technology. And those are those
periods of innovation are deflationary by nature because they're technologically enabled. So it's
part and parcel of this productivity discussion. We think the productivity uplift that will be
caused by these five platforms is going to exceed that which we saw in the 19 teens by a significant
amount. Have you any thoughts about that? Or it's sort of just Yeah, absolutely. Anything
that increases productivity, you know, is is is deflationary and increases real income. Listen,
it is innovation is the only thing that increases standard of living. Otherwise, we'd stagnate.
As I said, I thought with the growth of the internet and the platforms you mentioned that,
you know, have come in the collaboration, I thought there was going to be an acceleration
of this innovation that would increase the productivity. Again, I think COVID has really
thrown a wrench in it with the over hiring and all that we're getting faulty statistics.
But if that begins to unwind, you know, there's a great potential of a burst of innovation
in the next three to five years. Yeah, we believe that's going to happen. And especially

now that the consensus of you in the world is productivity is dead and, you know, inflation
is here. You know, when when the consensus view is moving in one direction, and we see evidence
that that is incorrect, and that that the world is moving in the opposite direction,
those are huge opportunities. And, you know, innovation, our strategies have been destroyed
in the last two years because of inflation and interest rate fears, you know, that fears that
they will extend well into the future. So, you know, I do think the rubber band is stretching here.
Just one more question, especially given the headlines recently. And that is on crypto assets,
cryptocurrency. I'd love to get your point of view and then just throw a little bit about our point
of view in the mix as well. You know, I just published last month, the sixth edition of
Stocks for a Long Run, and I added crypto. I mean, money, gold, the Fed and crypto currencies.
I took it from the point of view of an effective money. I know blockchain is a very important
aspect of crypto, but as a point of view, money. And in it, I pointed out that our banking system,
our whole payment system, Kathy, is crazy. I mean, merchants are charged 3% on Visa and
Mastercharge. And then they give me 2% back on my reward card. The government has estimated
that
costs consumers like 900, you know, I think it was $200 billion a year of extra fees.
We could make transfers so much more efficient and overseas transfers are crazy. You know,
Western Union migrants trying to get their money back. So, I mean, I think a lot of crypto is saying,
you know, we don't need these foreign exchange fees. We can make that faster.
I think it's got a long way to go. I mean, you know, there's the negatives of the volatility.
It's also the negatives of the correlation hasn't been independent. I think that may change over
time. I mean, the great part about Bitcoin is it is limited. It's not a fiat currency
that could be pumped up the way we pumped it up in 2020-21 to cause this inflation. So Long Run,
it does have that characteristics. But I think the banking system can't rest on its laurels.
I think Mastercharge and Visa have a monopoly that should be broken. And I think our whole
transfer system and payment system could be reformed. Yes. Well, I think the way we're looking
at crypto broadly is it's three revolutions. It's a money revolution, certainly store of value for
Bitcoin, important role of money. It is a financial services revolution, which is what you're
referencing partly. And then ultimately, it is a property rights revolution, digital property
rights for the first time. Now, that is the earliest. So we think it is, you know, as you
mentioned earlier, you thought the internet was going to increase productivity dramatically.
I think this is the missing piece in the internet. When the internet was evolving in the early days,
well, certainly no one thought any commerce would take place. It was an information exchange,
an information network. And so there was never a payment system integrated into it. This is
putting the payment system, the payments infrastructure into place. And so we think, we agree with
you
on financial services. And I think it's also, it's like the internet was in the early 90s. It was
like, we have no idea the kind of productivity it's going to unlock or the kinds of new products and
services it's going to, it's going to unlock. So really happy to hear you talk about that. We try
and explain what's going on with FTX as pure fraud. And that's not what this revolution is all about.
My guess is you would agree with that. Yeah, I mean, any totally new structure is going to go
through growing pains. I'm not going to take a position on crypto. I'm not an expert on it.
I myself have never owned it. But I mean, certainly blockchain, I mean, the idea that,

you know, this idea that like records for real estate and everything, these title searches, which cost people thousands of dollars, could, I mean, there's so many things that are crazy in our financial systems that are overcharged. And that blockchain can be so much better and more efficient at producing that. I definitely see that. Again, the role of crypto is money is still extremely early. There's a lot of issues there. I talked about some of those issues in my book as I compare crypto as money with gold, bank deposits, fiat money that central banks had. So it's an early stage. But listen, there's no asset class in the world that is appreciated as much. You know, even with the decline recently as Bitcoin, you can go back any part of the last 5,000 years. There's nothing that's appreciated as much. So just for that reason, it's something that has to be reckoned with. Yes. And we actually did a paper on Bitcoin collaborating with Art Laffer. And as you know, Art's, one of his mentors is Robert Mondell, or, right? Who I knew also. He was at Chicago when I was there. Yeah, one of the greatest international theorists that we had. Yes. And he won a Nobel Prize for his monetary theory. And so Art did collaborate with us in 2015. And when I, when we, he tore our paper apart from an economic theory point of view. And then we put it out in collaboration with him. The question was, could theoretically, could Bitcoin serve the three roles of money? And theoretically, the answer is yes. As you say, we're so early. But we were the first public asset manager to gain exposure to Bitcoin when it was $250. Today, it's $17,000. It's very refreshing to hear you, a student of economic history and an economic expert, be so open-minded about it. I think it's, it's wonderful. And I think everyone should get your book. It's called the book that you're referring to. Stocks for the Long Run. Stocks for the Long Run, 6th edition. Yeah, came out just last month. I think it's, you know, as I say, added Bitcoin, five new chapters. It's by far the most extensive revision. First, 1st edition came out in 1994. And, you know, one of the interesting overall conclusions, you know, I studied all the way back to the beginning of the 19th century, Long Run real returns on stocks were 6.7% a year in my first edition, 30 years ago. And in the last 30 years, guess what the real return on stocks, even with this bear market, 6.7%. It's just quite remarkable. The durability, despite the short run volatility, the durability of equities has been absolutely remarkable. And I'm glad to share that and a lot of other knowledge that I, they accrued in my studies with others. I guess I, you know, been a professor 49 years, and I love to teach and I love to explain. Well, I, I, now I haven't read your latest edition. I am going to go look for it because, especially because of, please do, I'll, I'll, I'll send you a copy, Kathy. Oh, I'm going to go buy a copy. I'm going to support you as I hope all of our, our viewers do. So it's stocks for the Long Run, sixth edition, Professor Jeremy Siegel. And is there any other way that people can access your thinking? Certainly your book is probably the best way. Any other? Yes, we have a program on serious XM radio, a podcast, an actual radio program for an hour, Fridays at noon. I start out with a market commentary and then my assistant, Jeremy Schwartz, carries on with interviews of people. Sometimes I interview fed people for the whole hour, but a summary of my weekly commentary can be found on a wisdom trees website, which is an ETF provider. As you, as you know, I'm a senior advisor to wisdom tree and you can access their websites, sign up and get my market commentary, which is usually eight or 10 minutes. And I try to put that out, you know, every week. Wonderful. Well, I'm just delighted that we've had this time together, walking through history and sharing points of view. So thank you so much,

Jeremy. I've been delighted to spend this time with you and look forward to reading your book. Thanks for the opportunity. Thank you so much. Bye bye now.
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