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Hey everyone and welcome back to FYI, the four-year innovation podcast. I'm Michael Krober, a product marketing manager here at Arc. On today's episode of FYI, we will be featuring last week's episode of In the Know, a monthly video series in which Kathy Wood discusses fiscal policy, monetary policy, market signals, economic indicators, and innovation. On this specific episode, Kathy discusses M2 growth interest rates, inflation, auto sales, and bitcoin, and she highlights the recent publication of arc's big ideas 2023. This year's report includes artificial intelligence, molecular diagnostics, orbital aerospace, technological convergence, and much, much more. To download the full report, please go to [arc-invest.com slash big-ideas](https://arc-invest.com/slash/big-ideas).

Enjoy

today's episode. Greetings everyone. This is Kathy Wood, CEO and CIO of Arc Invest and today's Employment Friday once again. It was a very special week for us as well. We released our big ideas 2023. We'll go through that in a moment, but it is Employment Friday and today's employment report

was quite a surprising one, throwing a lot of people for a loop. We'll go through first fiscal policy, monetary policy, economic indicators, importantly that employment report.

We'll go through the market indicators, various financial market indicators, and then we'll get to big ideas 2023. We'll move pretty quickly through the normal drill so we can get to big ideas.

So fiscal policy, well on January 18th, the Treasury hit up against the debt ceiling and now is maneuvering around using extraordinary measures to prevent a default on our debt.

Now, we believe, most people believe that these extraordinary measures will be good until some point in June. So in June, and as we get towards June, there will be more drama. But we do believe after, I think it was S&P or Moody's, maybe both of them, downgraded U.S. debt when Congress reached

an impasse. No one wants to go through that again or be blamed for it, especially as we're now moving in toward another election year, a national election year. So we think there will be better behavior this time around and certainly hope so. Monetary policy, well we are now officially on a on a year-over-year basis in negative territory when it comes to M2. M2 is down 1.3% on a year-over-year

basis as of December and it looks like could be down almost 2% in January. We have not seen declines in M2 on a year-over-year basis since the Great Depression in the 1930s. Now it is true, we went through an explosion in money that got us to 27% growth during COVID. I think that 27% growth rate was in February of 21. So we have passed, we've cycled through that, and now we are going into negative territory. So we think that bears careful watching and maybe the reason the Fed is softening its tune a bit and we'll get into into that. Yield curve minus

75 basis points. So long-term interest rates are 0.75% below short-term interest rates, very unusual, an unusually long period of time that this has happened. You have to go back to the early 80s to see this inverted yield curve and an inverted yield curve that has lasted as long as this one has. Now that means we believe that the bond market sees much lower real growth and or much lower inflation in the years ahead than the Fed does. And so we believe that also is a reason that the Fed is softening its rhetoric. The Fed funds rate did go up this week. February 1st, the Fed announced a 25 basis point increase in the Fed funds rate. So now we're at 4.75%. And that is up 19-fold from 0.25 where we were as recently as last March. We have never seen this dramatic an increase in interest rates ever, ever, ever. You could go back through all of history and never see this rapid an increase and nor an increase of this magnitude in terms of multiples of the base rate. So 19 times. And so we believe that the Fed now, because of signaling from money supply and the yield curve, is beginning to think that it should step back. Now it didn't say so. Chairman Powell said no, we have more to go. We need to make sure inflation gets back down to 2%. I think right now on the CPI we're about 6%. And the CPI of course is a lagging indicator because rents factor into it with such a lag. Now a couple of other things happened in the last week to give us the sense that Chairman Powell is getting a little more uncomfortable with the Fed's position. One is that two advisors or we believe that these individuals advise the Fed who used to be on the warpath against inflation have changed their tune a bit. Not that they think letting inflation go is what we should do, but I think they're becoming a bit fearful that Fed policy might have gone too far after really encouraging the Fed to tighten up. One is Janet Yellen, who is the current Treasury Secretary. And you'll remember the word transitory. She had used transitory as inflation was picking up. And then in quite a dramatic moment, she apologized for using the word transitory, said she was mistaken. This was sometime last year. And really almost encouraged the Fed to act as aggressively as possible. And that's when we started getting the sense that 75 basis points was going to be the norm, not the exception. Well, she's changed her tune. And in this last week, she said something like, once we're through this inflation and we've got it under control and we seem to be doing that, we're probably going to be facing an environment where inflation and growth are very, very low and problematic for businesses. So that's a big change. And in essence, what she is saying is that, you know what, maybe that inflation was transitory. Maybe it was because of a supply shock associated with COVID and all the supply chain problems that we had, and then the war in the Ukraine.

Maybe those shocks are why we had this inflation. And now those shocks are diminishing to some extent or to a great extent. And we're going to be facing a very low growth world, maybe even teetering on the edge of deflation. And we are getting a lot of deflationary signals. Another person who has changed his tune fairly dramatically is Larry Summers, who was a former Treasury secretary. And he was cheering the Fed on last year, as it was hiking rates, 75 basis points at a time. And he was saying, no, we're going to have to go to 6%, 7%, 8% to get this inflation under control. And now he's saying, whoa, whoa, whoa, whoa, whoa, ahead of the Fed meeting, he said, don't tell us, don't suggest what you're going to do next. Let's sort of wait and see. Of course, the Fed did go up 25 basis points. And I think that's because it had primed us to expect 25 basis points. But now he's got two advisors who I think were very influential last year, who are basically saying, wait a minute. In fact, after today's employment report, which we'll get into in a minute, Larry Summers said, whoa, whoa, whoa, whoa. I actually

think that businesses are going to feel like Wiley Coyote. They're still hiring like crazy, as activity is falling. So they may be looking over the cliff. So again, very, very interesting. And then the other, I think, most important point coming out of the Q&A after the FOMC decision, so the Federal Open Market Committee decision to raise rates, 25 basis points, was Chairman Powell's answer to the question, do you believe we're in a wage price spiral? Lyle Brainerd, another Fed member, does not believe that. And Chairman Powell said, I agree with Lyle

Brainerd. Now, that was a very big admission that we are not in a 70s style inflation, which is what they were fighting last year. And again, today, the Employment Report corroborated this notion that we're not in a wage price spiral. So we've got a very interesting phenomenon. I've talked about the Phillips Curve on this video before. And the Phillips Curve basically says that employment and inflation are positively correlated. When employment goes up, the odds are high that inflation will go up. Well, the history and experience of the last 40 years is that the opposite is true. That the stronger the growth was, especially during the 80s, 90s, the early parts of the 2000s, the stronger growth was, the lower inflation was. And so I think I think that we're coming back to that possibility. Whereas it seems as though the Phillips Curvers, and you know, this is Keynesian economics associated with the Harvard School of Economics, it seems like the Phillips Curve, which went out of style for the last 40 years.

I mean, when out of style for the last 40 years came back into style under Chairman Powell, is going out of style again. In other words, the evidence does not bear it out.

So let's get to this surprising employment report. Now, this is a January report heavily influenced by seasonal factors. We know that weather, especially in the Northeast, maybe not in Texas, but especially in the Northeast, weather has been unusually warm. And with little or no snow. So again, seasonal factors could be a problem here. But the employment report expectation was,

especially after the ADP report earlier in the week that said, according to its analysis, employment was up only 108,000 in the month of January. And expectations for non-farm payroll were 188,000. The number was 517,000. I'm sorry, the expectations were 260,000. Last month was 188,000. The number came in at 517. The unemployment rate dropped to 3.4%, a level we have not seen

since 1969. And weekly hours were shocking. They were up 0.3 hours. That rarely happens. Rarely. Now again, seasonal factors probably an issue here. But what it will mean if you combine that with average hourly earnings, which were well controlled, 0.3% expected, 0.3% delivered, that puts the year over year wage inflation at 4.4%, which is still less than the CPI inflation.

So no wage push inflation there. But the combination of hours worked and average hourly earnings means

that income, boom, especially when we incorporate the revisions to private previous months. So income is probably in the month of January up in one month's time. Roughly, it's somewhere between

1.5% and 2%. That's just a sequential increase. So that's 15% plus at an annualized rate. So that's a boom. It doesn't square with what we're seeing out there elsewhere. We're seeing the challenger job layoff rate up 400% plus in the month of January. We are hearing the headlines are screaming layoffs, listening to earnings reports over these last few weeks, one layoff announced after another, or hiring freezes at best. We're seeing the banks take reserves for bad debt.

Big increases like billions, a billion and a half, I think, for JP Morgan, there were a number of billion dollar increases. Just in the last few days, we saw reports from Amazon and Alphabet, Metta, Apple, Microsoft, and all of them were showing serious weakness. Advertising is one of the most discretionary of expenses. That actually started weakening dramatically nearly a year ago. As you know, we believe we were in a recession last year, and sure, we've gotten a bit of a reprieve, but if you look at what happened in the fourth quarter, the GDP statistics, we did get those final, I mean, the preliminaries. Inventory accumulation accelerated in the fourth quarter, and we thought that retailers were discounting so heavily because they were trying to clear shelves. Well, consumption, if you look at the retail sales reports, consumption looked terrible. Now, services bolstered consumption in the GDP reports, but goods consumption was very weak. What we're seeing from this employment report does not square with reality. From as far as the fangs and the companies that are like the fangs, it's very interesting, and we'll talk about this when we talk about big ideas, but there's a lot of disruption taking place to them. Amazon, I was very surprised at how weak its sales were, 2%, I think, and even its AWS, Amazon Web Services, which was the strongest part of the company growing in the 30% range for a very long time, is dropping the guidance for this quarter as down to 15% as Google and Microsoft compete more aggressively. But Amazon also has another issue, and that is social commerce. It's not a social network. So now that more and more consumers are buying in app, they're buying on Instagram, which is supported by Shopify, they're buying on Facebook, they're buying on TikTok. That's become a bit of a problem for Amazon. If we're talking about Google and Alphabet, chat GPT, we had at our brainstorm today, we had a number of people saying that their search queries on Google have collapsed. They're now just using chat GPT. That's a big problem for Google. And its advertising was quite disappointing. And even Microsoft was under a bit of a cloud, not its own cloud service, which is slowing down, but is still growing in the 30% range. But its base business was slowing. And we think we're seeing a lot of tech layoffs, layoffs in the tech industry, which will hit these companies. So a lot of disruption to the former disruptors. Although Metta, of course, came out this week with a big surprise. Its numbers didn't look good. They were negative on a year over year basis. But Mark Zuckerberg described some new products, so activating monetization on WhatsApp so that businesses can message consumers. And that seems to be gaining a lot of traction, which is great. And the other thing that Mark Zuckerberg focused on was efficiency. He probably used the word efficiency 10 times in conjunction with artificial intelligence. And this is the other thing that could be going on out there. AI is taking off. ChatGPT captured the consumer's imagination, but has also activated businesses' imagination. How can we use AI to control our costs, to increase productivity? And in our Big Ideas report, you'll see the massive productivity gains that we expect. And that's probably one of the biggest promises of AI. Many people are looking for the killer app, sort of like the social apps around the internet. But the killer app is productivity increases, which could mean, in the short term, more layoffs as companies start to operate more efficiently by harnessing artificial intelligence and their proprietary data pools. So I jogged a bit into disruptive innovation there. We'll get back to it with Big Ideas in a moment. But now on to more economic indicators. I mentioned retail sales down, inventories, they ballooned, and that was quite surprising. There were a few positive surprises on the

economic front, autos being one of them. Again, seasonal factors could be at work here, but auto sales jumped from 13.3 million units in December at an annual rate in the U.S. to 15.7. That's a huge increase. That'll be a good retail sales number for January. Big increase. Again, the auto sales were punk at the end of last year. And there are all kinds of reasons. Some companies like Ford are still talking about chip shortages. We think those are diminishing quite significantly. We think the underlying demand for gas-powered automobiles is slowing dramatically as the consumer preference shifts to electric vehicles. And that's clearly happening. Last year, electric vehicle sales, unit sales were up, I think 69 percent and gas-powered sales were down 7 percent. So big shift here. And I think the auto companies were caught flat footed. They did not increase discounts to move inventory like other retailers did. Sales were very disappointing in December. And so I think the discounting started in earnest. So that's good for inflation. So you have a big unit increase because prices are going down. So this is, again, flying in the face of the Phillips curve. So very interesting that metric. The other one that popped a bit was the University of Michigan Consumer Sentiment Index. It moved from 59.4 in December to 64.6. And I do believe that inflation coming down, which was part of that, which was also a message from the University of Michigan Sentiment Index, that inflation coming down makes consumers feel better. But 64 is a fire cry from 100, which is where we started the journey, the descent. So, but nonetheless, a bit of a recovery. Okay, now on to market indicators. So the equity market had a very nice month, year to date. And that's through today. Just pulled that up as I was doing this year to date. Communication services, so that would include Metta, which had a huge move on its quarter, up 21%, consumer discretionary 18%, tech up 14%, and innovation based strategies, pure play innovation, disruptive innovation strategies had an even better month. On the downside, and these were actual negatives, were some defensive sectors like utilities down 3.8, and healthcare down 0.6, although I'll say the genomics part of healthcare, what had a very nice month. And then energy was down 3.8%. And I think part of that was a rebalancing away from energy, which was had a spectacular move last year, it was up more than 60%. In the equity market, it was the only, I think it was the only sector finally that was up for the year. Now, but what is surprising about the 3.8% decline in the energy index is that there are expectations that now that China is off of zero COVID, that it will it will cause a boom in demand for energy. We don't think that's going to be the case. We believe that that China has been building inventories, because it's getting a great deal. It's getting Russian oil for a 40% discount to the market price. And so there's an incentive to build inventories. And we think India is doing the same thing. So we don't think a big increase in demand from from China based on the return from COVID is going to is going to drive the energy price up as much as many others think. And in fact, the price has been falling in recent days, we're moving towards that \$70 mark. Other other markets. Well, I think the fixed income market is leading the Fed that by the way, usually happens. We have the 10 year Treasury yield, which peaked last October at 4.3% is down to 3.5%. So it in October started to see something that probably was disappointing holiday sales that suggested that the Fed would change its tune at some point. It also saw commodity prices coming down, which were pretty obvious to see. So the bond market leading the Fed spreads coming down is associated with a risk on market. So the difference between junk bond yields, so higher risk company debt, and and the yields associated with treasuries, so much safer debt, those spreads are coming in. So that's corroborating that we're we've entered

more of a risk on market. On the commodity front, we see commodity prices from their peak, the CRB

index, which is a composite of commodities down 13%. And it is down year over year. Also, oil is down 43% from its peak, which was nearly a year ago, March 7 of 22 down to 73 and a half now, and it's down roughly 10%. No, 18% on a year over year basis. These this is what's going to get into the indexes. The gold price, which has been supported, we think by Chinese buying, Chinese central bank buying is still down 10% from its peak, its peak was way back in August of 2020.

And it but it is up 3% on a year over year basis. When it comes to crypto, Bitcoin is has had a spectacular start to the year up 39%. It's more aligned with innovation strategies performance. And so up 39%. But it is down 39% on a year over year basis. As many other assets are down on a year over year basis still because of what happened with monetary policy last year. So we're in a risk on market. And it you know, nothing goes straight up and we don't want it to we want orderly markets, but it sure is nice to be to be on the other side of what we believe when history is told, will be a mistake on the part of the Fed. This inflation was transit territory. And we do believe that interest rates will start coming down toward the end of this year. Now on to big ideas. And I'll just go through these somewhat rapidly, we're going each of our analysts and we do have the best analysts in the world. When it cut certainly when it comes to you original research on just truly disruptive innovation with rights law as the central focus of our research rights law says for every cumulative doubling in the number of units produced, costs associated with each technology drops at a consistent percentage rate. And Simon Barnett, our director of research for life sciences just presented a chart of brainstorm today, which showed that the pace of acceleration in the sequencing long read sequencing, which was is the more expensive form of sequencing that the pace of expansion, the number of genomes being sequenced with long read technology is exploding much faster than even we thought it would. And it looks like that cost decline for every cumulative doubling is now 30%. And we're we're at a very low base. So there are going to be a lot of cumulative doubling. So big cost declines ahead of us. And that's what drives the unit growth. So it's a virtuous cycle. And that's another example of the Phillips curve just being wrong. When you cut prices, you get more of something, units go up, and that should be good for employment, right? Okay, so let's go through some of the big ideas. And I just want to set it up by saying we focus a lot in this in this big ideas on technological convergence. So this is this means, you know, S curves feeding S curves. So I just described cost declines, causing an S curve, you have cost declines in sequencing causing an S curve there, and cost declines in artificial intelligence, causing an explosion in demand there. And in the genomic revolution, you've got both sequencing and artificial intelligence at work. So you've got an S curve feeding an S curve. And we think explosive growth going forward. So we spend a lot of time on convergence. And Brett Winton, our chief futurist, has some fantastic illustrations here on the kinds of convergences that we expect. And he also focuses on that, that, you know, we've grown up in a linear world, really the last 50 years. And if we're right, that we're entering into an exponential growth world, then real GDP growth should kick up here. If you look at the consensus forecast between now and 2040, you'll see it averages, this is real GDP, about 2.6%. If we are right, and these S curves started feeding S curves, and these new technologies start to be are integrated into our everyday life, they go mass market. The forecast that would be consistent with technological history, and

consistent

with these new technologies would not be 2.6% GDP growth per year, but more like 8.5% GDP growth

per year, with growth between now and 2030, being roughly 6.1%, accelerating, thanks to super exponential growth, to 10.7% between 2030 and 2040. So look for the convergence piece, and learn more about how economic statistics are going to change. They're all going to be lagging this, that we know it's already happening, but it's going to happen more and more going forward,

meaning we will have to be much more skeptical about the economic statistics, the readouts that we're seeing, than we have been historically. We go into AI and training costs that are dropping at a 70% annualized rate when you analyze both the hardware and the software involved in AI. Think about that, if you cut the cost of something 70% per year, you're going to get a lot more of it, and just to give you a sense of this, GPT-3 performance, it took, it cost in 2020, just really two to three years ago, it cost 4.6 million dollars to train a model with GPT level performance. Today, it costs 450,000, and by 2030, we think it'll cost \$30. So we're going to see artificial intelligence impact every industry, every company, and companies not harnessing it, are really going to lose out. And the biggest, the biggest impact, as I mentioned before, is going to be on productivity. And we do believe that there's a \$14 trillion market out there by 2030 for companies to harness and for productivity to enjoy the productivity lift that we expect. And that forecast, that \$14 trillion, is associated with a four-fold plus increase in productivity. So again, digital consumers, where we talk about the shift from linear TV to connected TV, and it is going to be dramatic during the next few years. We talk about sports betting, we talk about NFTs, and digital assets, and property rights, and how important they will be in the digital world, and how much GDP they will create. We talk about digital wallets, and how they really are going to usurp much of the role of bank branches. And I think the most provocative chart in the digital wallet section is helping people understand the number of steps between a buyer and a seller these days. It's nine in the open-loop credit and debit card transaction. And the fees associated with those nine steps are 2.6 percent. If we move to a closed-loop

balanced-funded transaction, where really it's the buyer and the seller are working through these digital wallets, those nine steps will collapse to three, and the savings will be 2.4 percent, which could be spread among buyers, sellers, and the digital wallets themselves. So really interesting work there. Public blockchains, we go through and show why we're even more confident now that crypto assets are going to rival and redefine traditional asset classes. Crypto assets being valued at the end of \$22 at roughly \$1 trillion. We could see \$25 trillion, a 25-fold increase by 2030. I know that our Bitcoin price got a lot of press this week, our price forecast. And yes, we are recommitting to the million dollars. Of course, we've had to take assumptions for corporate treasury uses of Bitcoin on balance sheets and nation state treasury uses. Those have come down a bit. But still, we do expect our base case for Bitcoin for 2030 is almost \$700,000, and our bull cases roughly double that for 2030. So you can see the building blocks in big ideas. You can take a look at our analysis of smart contracts and Ethereum and how the merge has is now causing actual deflation in the rate of increase in the number of ether out there. In other words, right now, Bitcoin is inflating at roughly, I think 1.7%, so the supply 1.7% per year as it moves towards its mathematically metered

21 million units. And ether, I think, has just moved into a decline in ether. That's quite a robust statement right there. And we do see smart contracts, fees generated by smart contracts moving from 11 billion, so nascent last year, with DeFi a part of it, NFTs as well, 11 billion last year to 450 billion by 2030. And then we get into the genomics and we now call it multiomics part of the presentation. We go through precision therapies and the central dogma of biology, DNA translating into RNA and then into proteins. So that's the central dogma of biology. And we go through innovative therapies that are reversing disease or curing disease, gene editing. We've talked a lot about that. We have a lot in this piece about gene editing and RNA-based therapies, which should lower costs and improve time to market and targeted protein degraders that could treat many diseases that we cannot treat right now. They're just not, it's not possible to treat them. We go into molecular cancer diagnostics, which we believe will help us find cancer in stage one, even pancreatic cancer and go through early detection tests, which we call cancer moonshots and how important they will be to treating cancer. And then we get into electric vehicles. You know our thoughts there. I just mentioned and I'll correct myself, electric vehicle sales I think were up 62%, although they may have revised that by the final version of this. And we go into the rights line, how it's impacting batteries and drive trains. And we show that EVs have hit at price parity with gas-powered vehicles. And now they're about to go into another accelerated decline in price as gas-powered vehicles just will not be able to compete. So we do think that gas-powered vehicles are at serious risk here. And we get into autonomous ride-hail. And you know we believe that Tesla's in the pole position there, certainly in the United States, but we also highlight once again how global oil demand is at risk because of electric and autonomous. And we would not be surprised by the year 2035 to see oil demand down 30% from where it is today. And even by 2030 by 5% or 5 million barrels per day lower than it is today. And we also believe that auto sales may have peaked in 2017 that ride-hail, both human-driven and soon autonomous, are going to continue driving down the demand for autos because the capacity utilization associated with ride-hail vehicles is so much higher than personally driven vehicles. And then we go into autonomous logistics and how drones are going to collapse the cost of the delivery cost, the delivery cost of local small items down by 22 fold from \$5.40 to 25 cents. And that's per delivery. Now this will be at scale. That's not how low the price will be to start. In fact, the umbrella price is that \$5 price from traditional delivery. But over time, competition will drive that price down to 25 cents. And we go through the world, Tashakini did a very comprehensive job this year of showing how much delivery costs are going to collapse. And finally we go into robotics and 3D printing. And I think the big surprise here is that robotics is the technology now, now that the multi-omics revolution is well underway. Robotics, believe it or not, is the most nascent technology out there. And we do believe that from such a low base, I think we're estimating unit sales of industrial robots in 2022, we're somewhere between the 600 and 700,000 unit range. We think those are going to scale into millions upon millions because the performance has increased 34, 33 fold over the last seven years, just seven years. So much so that Amazon is adding 1,000 robots a day. And by the year 2030, we wouldn't be surprised to see Amazon adding more robots than people, even though the number of employees will continue to increase, robots will increase more. Just to give you a sense of how low the penetration is in manufacturing right now. Comparing it to Amazon, which is one of the most advanced companies in the use of robotics, Amazon's robot density

per 10,000 employees is 3,200. So it has about a third as many robots as it has employees. In the manufacturing sector, that number is 140, so 1.4%. So 33% for Amazon, 1.4% for manufacturing.

And that's because the costs have been too high and they haven't been capable enough, but AI is changing that. And then we go through 3D printing and how in healthcare, in healthcare 3D printing is reducing operating times on average by 30% and increasing performance as measured by surgical accuracy and results, really important, by 40 to 50% phenomenal increases. Oh, and one more thing, orbital aerospace. This again, SAMCORUS has done amazing work here on reusable rockets and how quickly we're able to refurbish them now and our expectations for Starlink. And also delineates how satellite broadband, think Starlink, could generate \$84 billion in annual revenue over the next 10 years. And that's because a lot of people don't have access to broadband. I think it's 2 to 3 billion people around the world. RVs, recreational boats, commercial aircraft, cruise ships, warships, commercial ships, all of them will start using satellite broadband. And that could be an \$84 billion market. And hypersonic flight, unbelievable what we expect to happen. We expect early hypersonic

flight to cost about \$100,000. It'll be a \$270 billion revenue market in terms of potential.

But Starship could take that \$100,000 price tag for a flight down to \$18,000 and rapidly reusable Starships, \$1800. So, you know, that's terribly exciting and is going to change, is going to make the world a much smaller place and take us into new, meaning Earth a much smaller place, but take us into whole new realms of space. So, really exciting. So, hope you enjoy our Big Ideas 2023.

It's a lot of hard work. And every part of the organization, I think when you look at the graphics, the design, our design team did a magnificent job this year. And it's every part of the every part of the organization that gets involved in Big Ideas 2023 takes a village and ARC is that village and the village, ARC's village extends to all of you. And it certainly extends to all of you who, you know, who give us feedback about Big Ideas, about all of the research that we put out there on Twitter and LinkedIn and elsewhere. So, keep those messages coming. It makes us better. And we want to stay in communication with you. So, with that, enjoy Big Ideas 2023 and I'll be back to you next month. ARC believes that the information presented is accurate and was obtained from sources

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