

## [Transcript] FYI - For Your Innovation / Economic Indicators with Cathie Wood

Welcome to FYI, the four-year innovation podcast.

This show offers an intellectual discussion on technologically-enabled disruption, because investing in innovation starts with understanding it.

To learn more, visit [arc-invest.com](http://arc-invest.com).

Arc Invest is a registered investment advisor focused on investing in disruptive innovation.

This podcast is for informational purposes only and should not be relied upon as a basis for investment decisions.

It does not constitute either explicitly or implicitly any provision of services or products by Arc.

All statements regarding companies or securities are strictly beliefs and points of view held by Arc or podcast guests and are not endorsements or recommendations by Arc to buy, sell, or hold any security.

Clients of Arc investment management may maintain positions in the securities discussed in this podcast.

Hey, everyone, and welcome back to FYI, the four-year innovation podcast.

I'm Michael Kromer, Product Marketing Manager here at Arc.

On today's episode of FYI, we will be featuring the most recent in the know with Kathy Wood, a monthly video series that covers fiscal policy, monetary policy, market signals, economic indicators, and innovation.

On this specific in the know, Kathy walks through a lot of charts to help illustrate her points on inflation, interest rates, GDP versus GDI growth, and why we believe we're in a rolling recession.

We think the content is still great to listen to, but if you'd like to take a look at what she's referring to, you can find this edition of in the know on our website, [arc-invest.com](http://arc-invest.com), in the video section or on our YouTube channel.

And with that, I'll turn it to Kathy.

Please enjoy.

Greetings, everyone, it's Employment Friday again, and this is Kathy Wood, Chief Investment Officer of Arc Invest.

So here we are.

We're going to shake things up a little bit today.

We've titled this video, Economic Disconnects, and so we'll share the disconnects we're seeing out there, and then we'll go into fiscal policy, monetary policy, and economic and market indicators.

We are responding this month to a request we've gotten from a number of you over the last few months for some charts to go with my descriptions of what we think is going on.

So we're happy to do that, and we're going to do it in the arc style, which is very long-term time horizons, to give you a sense of perspective of where we are now compared to where we have been, and then to talk a little bit about where we think the economic activity around the world, inflation, interest rates, profits, and so forth, are going to go.

Okay, but first the conclusion before we go into the charts.

And the conclusion is, and we've been saying this for the last 18 months, that we are in a rolling recession.

It started 18 months ago with two consecutive negative quarters for real GDP growth at an

annualized rate, and since then, one sector after another has stumbled.

So housing, for example.

Housing by many metrics is down 40 to 50% on a year-over-year basis.

That is a recession.

In fact, it's worse than a recession.

We've gone back to COVID lows.

We're not far from 0809 lows.

And remember, the housing crisis is what started that global crisis off.

Now, we don't think a global crisis is going to happen today, and certainly not because of housing, but sales have stopped because interest rates, mortgage rates are approaching 8%.

And many people are quite happy to live in their homes with their 2.5% to 3.5% mortgage rates.

They're certainly not going to roll them over into higher rates.

And then we have autos.

Autos were hard hit during COVID, and we would have expected them to soar and stay at high levels for quite some time.

They did have a V-shaped recovery, but they have come back in, and they are below par.

I mean, this 15, 15 and a half million units at an annual rate in the U.S. is more consistent with a recession than a recovery.

And especially for the traditional auto manufacturers who are losing share to electric vehicles.

Sure, they've got their own participation in that space, but 90 to 95% of their sales are still gas-powered vehicles.

We now have government gridlock.

What happened with the House Speaker being ousted suggests that the government could shut down in the next six weeks.

So I know there's a lot of nervousness around government spending, which up to now has been a stimulant.

We think the next year, election year, is going to be more along the lines of gridlock.

Inventories.

Inventories, if we listen to our companies and to other companies that we don't own, but monitor for their cyclical indications, many are saying that inventories are dropping.

They're dropping dramatically at the retail level.

And yet we don't see that in the overall economic statistics.

In fact, the revision to real GDP in the second quarter showed inventories flipping from negative back to positive.

So we haven't seen a broad-based inventory decline yet, and we do think that is coming.

One of the ways we're seeing it is in the trade sector.

So our imports are dropping, I believe, a double-digit rate.

And that is something I'll come back to, because I don't think economists and investors spend enough time understanding what is happening in the rest of the world.

And we think the rest of the world is experiencing much more pain than we are.

Certainly China, increasingly Europe, and of course they influence the rest of the world.

So we might be in a rolling recession, and we think they are in something worse.

## [Transcript] FYI - For Your Innovation / Economic Indicators with Cathie Wood

Now economic disconnects.

I've mentioned one of them before, this difference between gross domestic products, so real GDP growth, and real GDI growth, or gross domestic income growth.

They should be the same, GDI equals GDP.

And yet they're not.

In the last year, the GDP growth rate has been, in real terms, 2.4% on a year-over-year basis, which is okay.

It's fine.

It's not a boom, but it's steady as she goes.

GDI, on the other hand, is up 0.2%, it had been down.

It's up 0.2%.

Essentially no real growth, and corroborating this view of a rolling recession.

We tend to believe GDI more.

GDP is revised more, because it's much more complicated to calculate it.

We've got consumption, all the areas of consumption and investment in government spending and trade and inventories, lots to measure there, whereas on the GDI front, we're measuring income, and we get those metrics from tax authorities and others.

So much easier to measure.

So we would lean towards GDI, which says this economy is very sluggish at best.

Rolling recession seems right.

Today's employment report was a big upside surprise after months of downward revisions, and this month was an upward revision to some of the prior months.

So the upside surprise, I think, was 337,000 around that versus nearly double the expectation.

So that's interesting, but here again, we have something for everyone.

The Household Employment Survey, as opposed to the Non-Farm Payroll Survey, suggested that employment growth was only 86,000.

Now that tends to capture more small businesses, and so at the margin, perhaps small businesses are fraying.

We did see in the ADP report this week that large businesses continue to lay people off, and the challenger layoff rate also is up more than 50% year over year.

So again, lots of cross currents, something for everyone.

One of the numbers that struck me in today's employment report was the duration of unemployment.

So the unemployment rate stayed at 3.8%, which means the labor force is growing fairly dramatically

to absorb that 337 increase in employment, number of jobs out there.

But the duration of unemployment, so those who are unemployed, are beginning to see significant increase in the duration, up from 20.4 weeks on average to 21.5 weeks.

That's a big jump for that particular metric.

On the inflation front, we have some disconnects.

I think the biggest one, and we'll get into this when we get into the charts, is the oil price.

That tends to influence inflation psychology.

And yet, in the University of Michigan report, inflation expectations came down quite a bit.

So that was interesting, and we'll get into that in the charts in a moment.

On a year over year basis, the CPI now is 3.7%.

There's another metric out there that the private sector measures.

It's called trueflation, and it measures millions of goods and services constantly.

And it is at about 2.5%.

So that's interesting.

The oil price going up has weighed on the stock market, but why not on consumer inflation psychology?

It's because gasoline prices are starting to come down, and refiners are probably getting hit.

We'll go into that in the charts.

Also on the inflation front, you've been hearing about Tesla's price cuts.

Well, it just cut the Model Y price again, a very popular car, and the Model Y on a year over year basis, the price of it, is down 27%.

And now that's important because it's becoming more competitive than a lot of gas-powered vehicles out there.

And on top of that price decline, consumers can get subsidies, and some of the subsidies depending on the state are quite large.

So this is very tough for traditional autos, and my guess is you're going to see an unraveling of auto prices.

Now during the early days of COVID or in its aftermath, when people decided to forgo mass transit and buy another car, auto inflation, auto price inflation, was responsible for more than a third of the burst in inflation in those supply-constrained days.

And we think the opposite could happen now.

Getting us to, perhaps, certainly into the 2%ish, 2% to 3% range, and maybe even below that during the next three to six months.

And of course, one of the problems for the auto industry is it is potentially agreeing to a labor contract with very high rates of inflation.

We're hearing other unions, airline unions in particular, getting 10% to 12% per year increases.

Well, if auto prices start to go down and auto companies sign on to these big union wage increases, they're going to have a horrible time with profits.

And our fear has been for years that they were going to be disintermediated, disrupted, and perhaps even destroyed by the shift, the massive shift, from the internal combustion engine to electric, that's the first shift, and then even more so from human-driven cars to autonomous cars.

So we're watching those negotiations.

That kind of wage increase is not being corroborated more broadly.

The average hourly earnings index in today's employment report was up 4.2% on a year-over-year basis and 0.2% month to month, so that's annualizing at roughly 2.5%.

That year-over-year increase peaked at 6%, ironically in March of 2022, when oil prices shot up as Russia invaded Ukraine.

And then on interest rates, again, we'll get into this with the charts, but just to explain what's happening right now, we have seen an inverted yield curve for more than a year now.

A year, I guess it was July of 2022, the yield curve as measured by the difference between the two-year Treasury note and the 10-year Treasury bond yields, inverted July of 2022 has been inverted since, and very recently and rapidly in this last, I'm going to say, three weeks, we've been through what's called a bare steepening.

What that means is short rates stayed very high, and the Fed, certainly the reason for that, and long rates started moving up.

So a steepening, a bull steepening is when short rates come down relative to long rates.

The bare steepening we've just seen is long rates moving up relative to short rates.

So we've gone from more than 100 basis points in version during the regional bank crisis in March back to roughly 30 to 35 basis points, still inverted, still a harbinger, we believe of recession or continued rolling recession, and much lower inflation rates.

But many people do not agree with that.

They think it's a harbinger of a soft landing because it is unusual at this stage for this kind of steepening to take place.

We do disagree with that.

We actually understand why long rates are going up.

Well, first of all, there's the profligate government spending.

So the Treasury is issuing new supply of Treasury bills and bonds and notes to support the spending out there.

We think that is going to die down and that most of the stimulus is behind us.

But nonetheless, this is one thing the Treasury market has had to deal with.

The Fed is letting its long term and other securities roll off its balance sheet in quantitative tightening.

What that means is it does not buy them back.

It used to buy them back when it was in a quantitative easing mode.

It is not.

It's letting them roll off now.

But there's another variable that most people are not discussing, but that we think is very important.

And that is that the Chinese Yuan and the Japanese Yen are both depreciating, and both governments

have expressed displeasure with this.

So what does a government do when its currency is depreciating?

What it does is, and we believe this has happened with both China and Japan, is it sells its holdings of U.S. dollar securities and uses those dollars, so sells the dollars, and buys its own currency.

And so they've been doing that aggressively.

So aggressively that Chinese dollar reserves have dropped from \$1.2 trillion to roughly \$800 billion in the last year or so, and Japan is doing the same.

Now why are they doing that?

What do they fear?

Well, a depreciating currency is inflationary for these economies.

And it lowers the purchasing power of consumers.

And in China right now, their property sector, so 75 percent of their savings are in the

property sector, that has been demolished.

Property prices down 10, 20, 40 percent.

And it doesn't seem like that deterioration has stopped yet.

So the Chinese consumer is not happy.

We keep an eye on pork prices.

That's the price that they really care about, a very important food staple to them.

And pork prices are down, and we do believe that the Chinese government is managing those pork prices down by stimulating the supply.

So the last thing China wants to see is a big surge of inflation to encourage more protests.

There have been protests already because consumers are not getting back funds that they had stored

on wealth management platforms in the form of effectively money market funds.

These companies went way, way over the limb in terms of property investment.

So you have long-duration investments, short-duration liabilities, and they can't return the funds.

And so the Chinese consumer has become quite dissatisfied.

And the last thing the government needs is an inflation problem and another hit to consumer purchasing power.

And I would say Japan the same thing.

We believe that the emerging markets, and you can tell this from the breakdown in those equity markets, that they are in recession.

And one of the reasons the recession is exacerbated in here is because the dollar is going up.

And we'll get into that when we show the charts.

The dollar has been going up, actually, since the end of the crisis in 2009.

It's up about 40 percent.

So that's our purchasing power going up here in the United States.

The dollar going up is a powerful anti-inflationary force.

And we think that the forces that I'm talking about will end in the Fed pivoting.

Of course, we've said this for a while, and we've said we think the Fed is making a mistake.

There's a world of hurt out there, especially in the US, in the real estate, the commercial real estate sector, and for anyone in the business of buying and selling homes, that market is paralyzed as well.

So what I'd like to do is illustrate some of the disconnects we're seeing or the conflicting evidence that we're seeing in some of the charts.

So we'll start with fiscal policy.

This is the federal budget deficit as a percent of nominal GDP.

And as you can see, we're in the 7.5 to 8 percent deficit range relative to GDP.

So if you look at this in the context of history, I remember when I first got into the business and in the early 80s, we were running a deficit north of 5 percent.

That was because we had back-to-back recessions.

You can see those shaded lines there, our recessions, and the government was doing what it typically does, trying to become a buffer against the hardship caused by recessions.

So we got to 5.6 percent deficit as a share of GDP, and I believe I remember the ruckus being raised there.

And one of the answers to curing that deficit was growth.  
So tax cuts, regulations being cut, tariffs being cut, and real growth being stimulated.  
And we do think that that will prove to be the case again.  
Now you can see what happened during COVID and during the great financial crisis, our government threw everything it had at both of these crises.  
And you can see we've come back, but in the absence of a full-blown recession, 7.5, 8 percent, very high by historical standards.  
And some would say that it is quite discouraging.  
And I'll come back to the notion that perhaps we are in this rolling recession.  
Those who think we're not in a recession can look aghast at this number, but it would suggest that we could be in a recession, and there are some contraceptive spending measures taking place in addition to the stimulus coming out of COVID, the COVID crisis, and the so-called Inflation Reduction Act.  
So how do we get out of this mess, and it does look like a mess?  
Our antidote, but consider the source, would be real growth.  
And we think the innovation platforms around which we have centered our research are going to be really important to the growth of the global economy.  
And if that growth rate is fast enough, and we think it's going to be much faster than most people think, this deficit should shrink.  
So now let's go on to monetary policy.  
Here you can see, you've heard me talk about M2 growth being negative on a year-over-year basis.  
This is percentage decline, and you can see it's in the minus 3.5% to 4% range.  
You haven't seen this, you don't see it on this chart, you'd have to take this chart back into the 1930s to see it.  
Now, the other side of this is we had that burst of money growth up to 27% during COVID.  
Again, the Fed throwing everything they had at it.  
And so this is a natural reversal, but this is more now than a year-long decline.  
And so now we think it is starting to bite.  
And if velocity drops, and you've heard me talk about velocity before, the rate at which money turns over, then this will exacerbate the downturn that we expect.  
Now, we can already tell that velocity is starting to diminish.  
It was growing very rapidly to get back to trend after COVID, but it never got back to trend and it is slipping again.  
And maybe next time I'll put that chart in.  
But we know the housing sector is stuck.  
And that is often, the movement in the housing stock often unlocks a lot of equity and increases the velocity of money.  
That is not happening.  
So we are concerned that money growth is still negative and we do worry that velocity will fall and compound the impact of this year-over-year decline.  
Now here is the long-term perspective on the 10-year Treasury yield.  
And you can see history going back into the 1800s.  
Now the Fed came into existence in 1913, so you can eyeball it there.

And if you look at the chart before that, we rarely went above 5% interest rates.

And you can see what happened afterwards, especially after 1971, when we closed the gold window and monetary policy became unhinged.

The Fed effectively accommodated the quadrupling of oil prices that OPEC put through right after that.

And you can see what a disaster that was throughout the 70s and into the early 80s.

And then in the early 80s, again, we had really good fiscal and monetary policy, fiscal policy encouraging growth, monetary policy, Chairman Volcker just saying, we are not accommodating these price increases.

But money growth never went negative.

In fact, I will show you back there.

If you look in the 80s, you'll see in the early 80s, money growth was in the high single digit range.

It never went negative.

And inflation and interest rates came down.

And we went into a 40-year bull market in bonds.

Now what has happened since the low in interest rates in 2020 is we have had the worst bear market, I think ever.

And interest rates were at such a low level that it didn't take much of an increase to cause outright losses in bonds.

And if you look at what has happened and tally it up, if you use the 10-year Treasury bond, I think the losses in terms of principal have been something like 45%.

If you use the 30-year, it's more than 50%.

So those are the sorts of declines we saw in the stock market after the tech and telecom bust and then in the global financial crisis in 0809.

It doesn't look like it's severe, but it's just the low rate from which it started.

And this is also an incredible problem for banks right now.

They have a lot of assets on their books with very low yields.

They piled into Treasury assets during COVID thinking that interest rates certainly wouldn't go up for years and years and years.

And you can see they hadn't gone up in years.

And they were paying very little for deposit rates.

Well, as the Fed started, its record-breaking monetary policy restraint taking the Fed funds rate up 22-fold in a little more than a year's time.

Money market funds became a big threat to the banks.

And they have attracted funds hand over fist, primarily from the banks.

And we've seen in April we saw the fallout, banks going bankrupt.

So the weakest sisters are gone.

But there's a slow bleed now out of all the banks, especially those in the regional banks who have had to bid up to keep deposits, keep deposits from flowing out.

The money center banks have not had to do that that much, but the regional banks have.

And so they are losing money or they're going to lose more money.

And that will lower the equity on their balance sheet.

So it's a slow bleed.



It's unfortunate.

Many people think we're in the clear now.

And the funding facility that the Fed put in place back then has solved or studied these banks.

But those funds, that funding, that financing facility is going to roll off.

And we're going to face that pressure again.

Now, the other thing to notice on this chart, many people are making the point that the 40-year bull market in bonds is over.

We don't think that's the case.

Maybe we've seen the low in bonds.

It's hard to get below zero or below 50 basis points.

But if we're right in the deflationary forces associated with inflation and disruption to the traditional world order play out, we do think that inflation rates are going to come down to a surprising degree and that long bond yields will come down as well.

Now, real growth, we think, will pick up when innovation does hit on all cylinders.

So that will be an upward pressure on interest rates.

But we don't think inflation will be.

And in fact, if you look, you can break out from tips how much of this interest rate move has been because of inflation expectations and how much it has been because of real growth expectations.

And it's been about half and half, so 2.3, 2.4 each.

If we're right, inflation is going to come down fairly dramatically.

And growth will come up, but not as dramatically.

So we are not bearish on bonds.

Here is the yield curve, and this is the harbinger of recession.

You can see we're at that minus 30 to 35 basis point range.

And you can also see when we've been here in the past, we've usually entered into a recession not long thereafter.

So the shaded areas, again, are the recession.

You have to go back to the early 80s to see an inversion like we've seen.

And yet, as I've been making the point on past webinars, to have this kind of inversion when interest rates are at this level.

So the inversion was 1% on 2, 3, 4% interest rate levels.

And you compare that to the 1980s, there's no comparison.

We were at 15% interest rates.

So 1% inversion on 15% interest rates is very little compared to a 1% inversion on 4% interest rates.

So night and day, and we think we're going to be feeling the ramifications for years.

I would also say that this metric could be picking up on the deflationary forces associated with innovation.

And that's not bad news.

But again, there's going to be deflation associated with the companies that are disrupted because of innovation.

And that's bad deflation.

So it's going to be very interesting to see how the bond market sorts all this out.

And here's the dollar.

I think many people are surprised to learn that the dollar is up roughly 40% since the end of the

global financial crisis in 09.

And I know the consensus view is because of the twin deficits, the government spending deficit and the trade deficit,

which is also very wide, that the dollar should be going down.

Well, why is it going up?

One of the reasons is it's a flight to safety vehicle.

The other reason could be very much like the reason in the 80s.

So in the 80s, you see the spike there.

And what was happening was monetary policy in the United States was very restrictive, even though the money growth rate was still 8% to 9%.

The demand for money was higher.

Velocity was falling.

And so there became a scarcity of dollars in the global system, so much so that deflation was starting to occur, especially in the emerging markets.

And so Treasury officials back then got together in the Louvre or the Plaza Accord.

Both accords were associated with that time.

And all Treasury ministers around the world went back to their countries and said, sell dollars, including the US, sell dollars and buy these other currencies to alleviate the dollar shortages in the system that were causing deflation in the rest of the world.

I think we might, this might also be a flight to safety and a dollar liquidity squeeze, because if you think about emerging markets, they've seen oil prices go up dramatically like we all have this year, especially since the summer, I think 45% increase in oil prices.

But on top of that, their currencies have depreciated, which means because the oil price oil is priced in dollars, their purchasing power has gone down even more than ours has.

So that is causing a lot of stresses and strains in the rest of the world and a bit of a flight to safety to the US dollar, as you can see here.

The other peak you see here was during the tech and telecom bubble, that was a terms of trade move, the innovation associated with the internet was largely emanating from the United States.

And so there was a rush of capital into the United States to take advantage of it. That might be a little bit of what is happening here as well.

Okay, so now on to economic and market indicators.

So oil, here we are with oil. You know, when I see this long term chart, first of all, a few things to note.

You can see the, it looks tiny now, but there was a quadrupling of oil prices. This is not a log chart in the early 70s. Monetary policy accommodated that.

There was another, another surge in the late 70s. And you remember the Iranian hostage crisis. It was a terrible environment for the United States.

I know most of you don't remember the Iranian hostage crisis, unless you've seen the movie.

But the Fed accommodated that too, until Volcker, Chairman Volcker said, no more, we're not going to accommodate. And you can see how the how the oil price settled down.

And then what happened? What, how did we, how did they get unhinged again?

Well, there was the, the, the Kuwaiti war. And, and maybe even more important, though, was that was once again oil, but even more important was Y2K.

So Y2K, we were heading for the end of the millennium, the beginning of a new one. And many

people feared that computers would shut down.

Because all of the programs out there had two digits for the year. They weren't thinking about turning to another millennium.

And so the two digits would have reverted to 1900, not 2000. So there was a huge boost in spending. And there was the tech and telecom bubble. And the Fed accommodated it once again, unhinged. And that caused this massive inflation, which took us into the 2000s.

But what I also take from this chart is you don't see that now. You see oil in a range. It has been in a range, let's just say,

since 2005, you know, sometimes it went up above that range, sometimes below the range, but in a \$75 to \$100 range.

That is not an inflation cycle anymore. We had two massive inflation cycles, but this is not one of them. And you see that oil hit its all time high at \$147 in 2008.

And what I like to remind people about 2008 is the economy really was falling apart. People just didn't know it.

And I think here we are again, we are in this stealth recession. It's not going to be anything like 0809, because we've recession has already rolled through so many sectors.

But one indication that this this is correct is on the next page. So here you see the oil price again in purple.

And you see the you see what happened during COVID, a collapse in the oil price, a resurgence. It peaked below that 147, which was the 08 peak, and started down. And here it's gone up again.

But look at what has happened very recently. Gasoline futures prices have been falling and prices at the pump are falling.

So what does this disconnect suggests? It suggests several things. One, there's demand destruction. I think the EIA reported this last week that for the four week moving average, the latest four week moving average demand for gasoline has not been this low in 25 years.

So if that is true, and oil prices are going up, what does that mean? It means refiners are going to get hit hard.

And the other thing we may be seeing early stage right here is the oil price following the gasoline price as it usually does.

And also supply coming out of the woodwork. Apparently the U.S. is at record production near 13 million barrels per day now.

And Canada's production has gone up 500,000 barrels ours up one one million and we're in much bigger country.

So we think there's a lot of supply coming into the market and even Exxon's acquisition of Pioneer announced today suggests to us that shale oil is going back perhaps into a heyday to capitalize on these oil prices.

So this leading into this is a disconnect and it would suggest inflation is going to resolve to the low side of expectations.

Here's gold. Again, you can see the massive inflation in the 70s. Again, this is not a log chart. Maybe next time we'll do the log chart.

You can see the accommodation thanks to Y2K and the Fed easing, which took us into and through the crisis.

The gold price continued to move up less because of monetary reasons, probably during 1809, but more because of flight to safety, because of all of the counterparty risk caused by that financial

crisis.

And here again, if if we were to look at this chart in the we are looking at it in the context of history, the gold price.

This is a quarter at quarter end price. But if you were to do the intra quarter prices, they almost hit \$2,000. So again, you can say we have been in a bit of a range, sometimes a bit above it or a bit below it.

And next chart shows even more so what has happened.

So all the fear about inflation should have have impacted the gold price from the moment the COVID crisis happened and gold did surge.

But it came right back in. It has been in a trading range and it does seem to be resolving now to the downside.

We've had two tests here and it's resolving to the downside. Part of the reason for that is the dollars going up.

And there could be this could be this decline could be a manifestation of a liquidity squeeze in the dollar out there.

And then here's copper, Dr. Copper, the commodity with a PhD.

What is that saying about inflation and interest rates?

Well, you can see it corroborated that monetary accommodation of Y2K and up she went.

That's when the copper price surge to prices were effectively where we are right now.

So, you know, you can say with a straight face as measured by this metric of inflation that inflation has, you know, been in a band in a fairly contained range for the last 10 to 15 years.

There wasn't a new resurgence in inflation. So those expecting cost push inflation, like we had in the 70s.

That doesn't look like it's proving out. And here's the shorter term on copper.

The reason we're taking this seriously is the amount of copper used in electric vehicles, the wiring in electric vehicles is to well, the numbers are coming down.

Used to be five times the amount of copper used in gas powered vehicles.

Now it's down to something more like two times. But still, you know, that's more intensive use of copper.

And yet we've broken the trading range that was established as electric vehicles was taking off this \$45 range.

And we're in a new range and resolving to the downside here too.

On the next page, and this is the last page, but this is a little bit of a warning and a corroboration that we've been enrolling recessions and Fed, please take note.

So these are credit default swaps credit default swaps are insurance policies against the risk of bankruptcy.

And we've got two metrics here. The purple is investment grade, and the green is high yield. So lower quality companies.

And you can see what happened to both of them during COVID quite dramatic.

You can see what happened during the regional bank crisis in March.

Well, spring of this year, surged and pretty much have remained elevated.

And on the high yield side, basically, they're starting to gap out again, warning about something unpleasant out there.

And I heard, or I saw that Mohammed Allarian wrote, you know, something's going to break here, he

may be referencing this chart.

The other thing to notice we never got back to normal ever, you know, below 300 on the high yield and 60 on the investment grade did not get back down there.

So the market is unsettled and these are, you know, these are people who are watching balance sheets and trying and mega trends and just trying to figure out who's in harm's way.

I think one of the things this is telling us is this bank crisis is not over. And if you look at the individual banks credit default swaps, you'll see that some of the regional banks are gapping out now.

And even the money center banks, which don't have as much exposure to commercial real estate, they are starting to flag a warning signal.

So, you know, this is this is also a set of disconnects as, you know, the, the media pick up on the latest economic statistic, they're saying, oh, we're off to the races or soft landing or, you know, whatever it is.

And these charts are, are belaying that and are just saying be on guard here.

And we are, we are in terms of regional banks and others who are hurt by adjustable rate mortgages and a lot of bank loans are adjustable.

You're going to have a lot of companies having to refinance or roll into their new interest rate associated with adjustable debt, and they are going to have problems.

Private equity, you know, they, they leave very little room, I would say. And we're looking to see some issues there.

You've certainly seen it in the real estate sector. And I think probably what most people aren't talking enough about is corporate profits.

Corporate profits sequentially have been declining for the last few quarters.

Companies are losing their pricing power. And we're seeing real unit declines. And this is probably the biggest disconnect at all.

I listen and our analysts listen to earnings calls by the dozens, some associated with companies we own and the innovation space.

But I in particular tune into more cyclical companies just to see what's really going on out there.

And we are not hearing a strong economy talking and anyone associated with a consumer is really trying to call out the, in some cases, the distress that some consumers are feeling.

So with that, I'll end it in a couple of ways. Innovation solves problems. Companies are going to lose pricing power.

How do they salvage margins? Well, you look to cut cross costs or increase efficiency and productivity.

AI breakthroughs are going to do just that. The productivity gains they're going to unlock are astonishing, astonishing.

Innovation gains traction during tough times. This is exactly when the market shares associated with our companies are going to increase.

Much like they did during COVID innovation solves problems was our mantra. Now, maybe our companies and stocks appreciated too much back then.

But innovation does solve problems and companies are going to be facing a whole new set of problems as they lose pricing power.

And this rolling recession intensifies as this credit default swap chart suggests it might.

So with that, I'd also like to highlight a few of the reports we've put out recently. Bitcoin monthly

should be out either Friday or Monday.

And we have a crypto brainstorm with Art Laffer trying to understand what Bitcoin is and how can he be sure about this rules based monetary system and cryptography.

And it was, some people said, wow, that was clearly spontaneous. Nobody prepared for that.

But we left it all in there so you can see it. We didn't edit anything out because Art is really trying to get his head around what this is.

And the more he finds out about it, the more excited he gets that we might be going back to a private monetary regime.

Pre-fed, meaning before 1913. And I've said to him, but Art, back then we were in a very volatile boom bust environment.

He said, yeah, the booms in the bus lasted weeks and they got over it and we had no inflation on balance.

Now we have the fed coming in and we have massive distortions taking place.

I showed you those charts. I showed you the interest rates, the inflation, the oil price and so forth.

That's fed accommodation. And I agree with him. We have to get out of that.

But now I'm fearing that the fed and this credit default swap chart would suggest that the fed is too tight.

That was the signaling during the regional bank crisis. And here we are again.

And then the other sort of new YouTube video that we're putting out weekly now is called Arc Brainstorm.

We have a brainstorm every Friday. It's a two hour brainstorm.

And Nick Groose and Sam Chorus on our team at Arc basically summarize and distill in 20 minutes what were the high points or the low points of the brainstorm.

And it's fun. It's really fun. I know I'm at the brainstorm and I even like to listen to it.

So it's called Arc Brainstorm. And the last thing I will leave you with is we're going to get through whatever this is and innovation is going to help us do this.

So we couldn't be more excited about what our companies are doing and the breakthroughs that we're seeing in the five innovation platforms, robotics, energy storage, artificial intelligence, blockchain technology and multiomic sequencing. They're going to transform the world completely and for good.

Arc believes that the information presented is accurate and was obtained from sources that Arc believes to be reliable.

However, Arc does not guarantee the accuracy or completeness of any information and such information may be subject to change without notice from Arc.

Historical results are not indications of future results.

Certain of the statements contained in this podcast may be statements of future expectations and other forward looking statements that are based on Arc's current views and assumptions and involve unknown risks and uncertainties that could cause actual results, performance or events that differ materially from those expressed or implied in such statements.