



MACRO Voices

with hedge fund manager Erik Townsend

Aaran Param: Inflation, Stocks, Dollar, EM, China, Commodities & More

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Erik: Joining me now is Aaran Param, investment strategist for [Variant Perception](#). Aaran, great to get you on the program. Let's start with the big debate in finance. Inflation, some of us say it's secular. Of course Janet says it's transitory. What is it?

Aaran: Yeah. Thank you Erik. Thank you for having me on. I guess. Firstly, it's just worth saying you guys have done a great job getting some very excellent views on both sides of the inflation debate from previous guests on the show. In a nutshell, our view is that inflation risks are higher than they have been in recent decades, and are largely reminiscent of late 1960s, early 1970s US economy. Now, that doesn't mean that we're guaranteed to get a secular rise of inflation. But the odds of a regime shifts to a world of unanchored inflation expectations and upside inflation volatility are higher today.

In terms of structural risks, I think these are quite well known. We've got the fusion of fiscal and monetary policy working hand in hand. That adds weight to the whole debasement of the currency and unanchored inflation argument. With respect to cyclical risks, I think broadly, we can sum this up in the sense that we've got pent up demands being unleashed onto an economy with the system supply side disruptions. And one area that we've been writing quite thoroughly about this year is housing. So if we were to just break down CPI into its various components. Shelter CPI is about 30%, of headline CPI and about 40% of core inflation. This series hasn't really been volatile to the upside before. But we're starting to see evidence that that's going to change pretty soon. We know that house prices in the states leads shelter CPI by about 18 months and more specifically, that's owners equivalent rent. So with red hot housing data through the pandemic, we're now starting to see owners equivalent rent track higher. And yesterday's data was really confirmation of this starting to happen.

The CDC eviction moratorium expires at the end of June. And that allows landlords to boot up tenants essentially and demand higher rents from new ones. And we've seen asking rents from landlords such high recently, at the same time as vacancy rates are still very, very low. So to us, it's actually very, very strange that we're seeing such a huge divergence between what's actually reflected in CPI versus reality. And to us that really brings into question, you know what's actually real. And that is of critical component for judging inflation expectations. So you know, we can look at things like Shadow stats for instance. These things tell us that the actual

inflation felt by households, is probably a lot higher than what CPI is actually telling us. And we can also go through company transcripts. We see that their costs are rising all over the shop, and they don't think it's transitory. And now they're starting to feel the pressure to really pass this on to consumers. And so really, what we're left with is it's inflation expectations are the measure to watch right now. And that is really the propagation mechanism for turning cyclical or quote, unquote, transitory bursts in inflation into a more persistent one.

And of course, there are a lot of measures of inflation expectations. Whether it's from market breakevens, household surveys, professional forecasts or surveys. The Fed has tried to aggregate all of these different measures into one indicator. The common inflation expectations index. That's not actually useful for investors, because it's a quarterly index firstly. And secondly, it's released with a massive lag. So we tried to build one that's pretty similar, and much more timely, and this indicator has been surging from its pandemic lows. And in level terms, it's probably back to 2013 levels, which, of course is an environment with much higher yields. I will say that it's still important to respect the broader deflationary arguments, technological change, debt dynamics, demographics, and so forth. But these structural arguments are quite hard to see in the data. And it's certainly possible that inflation and inflation expectations can spiral out of control with the backdrop of some of the structural headwinds.

In terms of cyclical deflation or indicators. One thing that we're watching quite closely is bank loan growth versus bank asset growth. And this is really summed up the QE era where money growth was surging, but there wasn't really any loan demand to mark this up. And the way the credit cycle works in the data is that supply tends to lead demand. So banks usually step up lending efforts if they expect there to be sufficient demand on the other end. And what we're seeing now is that bank lending surveys, they're showing a sharp easing of credit standards alongside lowering credit spreads. So we do expect loan demands to pick up so some of these deflationary-disinflationary indicators are starting to reverse now. But I think you know, just the final point really to make is more of a thought exercise. You know, I loved reading Stephen Roche's piece recently on the ghost of Arthur Burns where he gives an inside view of the FEDs thinking during the 1970s.

And really it was striking to me that there's a massively dismissive tone to inflation in the 1970s, where the Fed was essentially chalking down high inflation prints to noise transitory factors. So, there are certainly some eerie parallels to today. But I think generally, it's a great exercise just to invert the problem and ask, you know, what if what we're seeing today isn't transitory? And what if we keep seeing these temporary disruptions that cause burst inflation? And what if this is the moment where inflation expectations finally react, and they become reflexive and unanchored? So I think that's broadly how we're thinking about inflation. I think it's important to invert the problem always and think about the other side of things.

Erik: Let's take this view, Aaran, and extend it to the stock market. Because on one hand, I know from talking to some of your colleagues at [Variant Perception](#), you guys have shared some of my concerns about high valuations. But at the same time, this inflationary outlook kind

of says we could go to higher valuations. What do we make here? And what sectors do we invest in if we're still in the equity market?

Aaran: Yeah, I would say broadly, something that's resonated with a lot of people that we've been talking to is that we should try to think of a bull market in three different phases. And we're essentially in phase two right now. Phase one is where, quote unquote, the easy gains occur. And this is really where some of the great investors are able to buy at cheap prices, look through all the hatred and disgust. I would say that, you know, phase two, generally what we see is that trading conditions become choppy. The recovery and growth is largely priced in. Markets are in show me modes, where earnings growth has to justify the previous surge in valuations. And it's in this environment where you start to see a lot of companies disappointing. And so naturally, I think in this environment, we need to start thinking more about stock selection, more about sector-country rotation, because this becomes more valuable as the index itself starts to trade more sideways. And phase three is essentially where the economic cycle starts to mature. Equity gains are driven by persistent earnings growth.

And so really the difficulty today, and I think it's quite a unique difficulty is that we've rapidly transitioned from phase one to two. And just one way to see this is by looking at analyst estimates of company earnings. You know, never before have we seen analysts revise their forward earnings estimates this quickly after a recession. So the key conundrum for equity investors is that we've got an early cycle economy with late cycle asset valuations. So really, I think, any forecast models that uses valuations as an input, for instance, these are just going to look awful across the board. And I think it is worth paying a bit of credence to some of these forecasts because the track record for a lot of them are very good. Forecasts based on shell appease, forecasts based on households allocation to equities. But the trouble is, they're very long term by nature. And it's quite difficult to translate that into an investment decision today.

So I think the argument is there to break it down a bit further to look at various sectors and industries. And I think the roadmap still is to favor the cyclical tilts in portfolios, because something that we know about recessions is that they mark regime shifts both in economies and markets. And with a recession, we typically see a multi year outperformance of six core assets. We see past losers become past winners. But again, it's just incredible that so many of these cyclical assets have seen forecast earnings go well in excess of 2019 levels, and 2019 was a late cycle economy. So the economic boom is priced in for a lot of the universe. I would say that the stands out exceptions are very much energy and banks. We do a lot of capital cycle analysis. So we look at variables like CAPEX as a percentage of asset base, the rate of asset base depletion, and various corporate return measures.

And the energy sector and in particular, explorers and producers have seen a massive collapse in CAPEX at the same time as the return on incremental investment is going up. And that's a great setup for shareholders because you've got this consolidation of the sector and supply rationalization means that the surviving firms can at least enjoy a period of less competition, and that's good for the share price. And, you know, right now we know that no one wants to invest in a sector that has destroyed capital for so long, particularly as we've gone on the side this sexy

clean energy space sucking in so much capital. And the Dallas FED energy survey, for instance, they've got some really great quotes on oil and gas companies.

And it just gives us a sense of how executives are thinking about the road ahead. So one firm, for instance, they said they've got relationships with about 400 institutional investors, and just one of them is willing to allocate new capital to oil and gas investments. But of course, we need to acknowledge that the sector itself has rallied quite massively off March 2020 lows. So startling valuations aren't as attractive as they once were. But again, in phase two of the market, I think we do need to step up that focus on quality management and quality of earnings. And so we're not quite at the finish line for cyclical trades. But it's now worth thinking about where to tilt with respect to equity allocations.

Erik: Now, one of the things that you said there was that country rotation would come into this. Obviously implying emerging markets. I want to come back to that. But, let's start with the US Dollar Index, though. What do you make of this this dollar? It seems like everybody's confused about which way it's headed next.

Aaran: Yeah, I would say that's a good way to sum it up. And I think it's very easy to look silly when forecasting dollar returns. But at least from our indicator standpoint, something that we're seeing in the data is at least is that there is \$1 smile evidence in the data. And this is really based on Steven Jen's framework. He was an FX strategist at Morgan Stanley. And he posited that the dollar generally has a convex relationship to US economic performance. So the dollar is generally strong during risk-off periods, in times of economic stress. But it's also strong when the US economy outperforms the rest of the world. But other currencies tend to strengthen relative to the dollar, when the US economy is middling. And I guess from the investor standpoint, there are higher returns to be to be achieved elsewhere. And we can plot just US ISN versus rest of the world PMIs. And that actually has a nice lead on the dollar. It's not a perfect relationship, but it captures some of the key turning points.

And given that our growth indicators right now, incredibly strong in the states much stronger than anywhere else. Certainly in DM, we think we're moving to the right hand side of this dollar smile. And this is an environment where the US economy, it can suck in capital inflows. Investors start to pile into dollar-denominated assets, and the US economy outperforms the rest of the world. Another, I guess, technical signal that we're looking at something to essentially, check if this rally has legs is looking at Dollar breath charts. And initially, we've found signs that this recent rally does have legs. One way we can look at this is just creating a cumulative advanced decline line for various DM currencies against the dollar. Much in the same way that you can do for equity indices. And so interestingly, at the start of the year, when we had the dollar rally, it wasn't confirmed by breath data but today it is. So whilst we still have a lot of focus on some of the short dollar arguments, which still carry a lot of weight. Things like the incredible twin deficits in the States. The greater debasement of the dollar versus other currencies, alongside a backdrop of booming global trade. There is room for a cyclical counter consensus rally in the dollar, particularly, as people start to continue covering their extreme short positions.

Erik: Let's go ahead and move into emerging markets, then where are the plays if we're going to start trading out of developed and into emerging markets?

Aaran: Yeah, so I'd say that, broadly, we favor the resource heavy EM sectors right now. I mean, the EM index itself is incredibly concentrated right now. Being mostly allocated to China, South Korea, and Taiwan. One way that we're looking at this is essentially wrapping up our growth leading indicators for individual EM's with valuations and also with some technical signals. And what we essentially do is that we look at how many of these individual EM forecasts are positive or negative and this works over a six month horizon. And right now it's the aggregate diffusion indicator is very high. And that's broadly good actually for the MSCI EM index.

But as I said before, in this kind of phase two of the bull market it makes sense to start to think about rotating within equity indices. And I would say that right now just on a on a crowded metric things like you know, analyst ratings, things like long term RSI, institutional ownership of stocks within each EM. A lot of Lat M looks incredibly undervalued, particularly as they've lagged the commodities rally. And we know that there's a ton of political stress and a lot of these economies. And typically, if you take a longer stance standpoint, these are typically the best times to buy. And so we're starting to think that whilst the commodities rally may be running out of winds in terms of on a cyclical basis, some of these latter, stocks are showing a potential for a catch up trade there.

Erik: Aaran, let's talk about China specifically. So much, so much angst in some places and other people see it as opportunity. How do you interpret the China situation?

Aaran: Yeah, I think this is important for EM investing. Especially because I mean, China is just the commodity consumer of the world. It is so important for the global growth and global liquidity argument. I would say the first thing that's worth addressing is that we're seeing a lot of charts flying around now with China's negative credit impulse, being a reason to exit cyclicals and commodities. I would say there's a bit more nuance to this because it is true that Chinese domestic data is slowing down. And policy is a bit more neutral versus the rest of DM, especially after the 50 pips reserve ratio cuts, which we interpret as more of a technical adjustment rather than the start of a fully easing cycle.

But what I would say is that what's perhaps missing from the mainstream argument is that external inputs into the Chinese economy are extremely positive. And we think that this is more than offsetting domestic weakness. So our China leading indicator is actually very resilient right now because of external inputs, like global manufacturing data, global trade data. And this really allows Chinese policymakers to pursue more structural issues like deleveraging. For as long as the rest of the world keeps stimulating and propping up Chinese growth. Now, of course, this won't last forever. And it's probably a story for next year in terms of how China reacts to a fading external impulse. I would say for the time being the reflation trade is not over. And I think there is value in again, rotating at the margin when necessary, but certainly for now Chinese leading data is holding up.

Erik: Let's move on to bond yields. You know, we had, I guess, it seems to me like a scare after the Biden administration announced how much spending they were going to do. Everybody was afraid that bond yields were headed back to 5%. Seems like we're moving the other direction now. What do you guys make of this and where are we headed?

Aaran: Yeah, I would say in response to inflation data. Broadly, the bond market is looking through it and thinking that the FEDs will hike soon. For us, it's a bit premature because we are so early in the recovery. And labor market data isn't that strong, despite some of the headlines going around. So it doesn't make sense to us at least that the Fed will bring forward a set of hikes straight away. I think one way that we're phrasing it is that we've seen the FEDs talk like an adult about inflation and policy normalization, but it doesn't necessarily need to act like an adult. Over the last decade, we've seen that the Fed has generally followed through on rate cuts when the eurodollar curve is priced in cuts. But on the flip side, the Fed doesn't follow through when the market prices in hikes. It's happy to take a step back, let financial conditions tighten without much intervention on the Fed's part.

Given recent moves, I would say yields are now trading quite low relative to where they should trade based on macro data, inflation, growth, and also market inputs like eurodollar futures and oil. But on the other hand, I think we do need to respect the flow data. Because right now it is very attractive for foreign investors to buy US Treasuries after hedging out FX exposure. Pension funds as well, we've seen that their funding ratio has improved significantly after the pickup in yields. And that's allowing them to lock in higher starting yields and acts as a counterbalance to some of these inflation and growth arguments on the other side. And of course, we've seen a lot of technical factors at play here on the demand supply sides. Yesterday after the CPI data came out, we saw some curve flattening, but then we also saw that the 30 year auction was very poor and so it led to a resteeptening of the curve. So there's a lot of supply demand factors going on that's kind of muddying the picture.

So in our view, it makes sense to focus a lot more on trade structuring. If you were to bet on high yields going forwards. I would say right now it's difficult to short treasuries outright based on some of the flow arguments and supply demand factors. And we've also bucket in direct steepness with that. What we do like is yield curve caps, which are essentially steepness expressed as call options. It gives some capped downside with outside upsides, particularly if the Fed remains dovish in the offense of an inflation scare, and given the dynamic I just mentioned with the Fed not following through on hikes and also with the historical precedents of the 1970s where Stephen Roche quite elegantly wrote about how the Fed's kind of chalked everything down as transitory plus the fact that fixed income volatility is very low. It makes a lot of sense and it's quite attractive to put these types of trades on now.

Erik: Let's move on to the commodity supercycle. A subject that I have discussed with some of your colleagues at [Variant Perception](#). I want to credit your firm for being pretty early on this one before everybody else started talking about a new commodity supercycle, bull commodity supercycle. You guys were onto this a while ago. What do you see coming? How does what's

happened already jive with what you were expecting? And I guess the big question in my mind is for a lot of these trades, like copper. You know, if this is a really big secular cycle, it's just beginning. But boy, it's already moved so much. It's kind of hard to justify new longs in a market that's already moved so far. So how do you think about this from a trading perspective?

Aaran: Yeah, I think you summed it up very nicely there Erik. I think it is broadly very uncomfortable to see how quickly it's moved. Since Tian, came on. I think it was in October to talk about the supercycle thesis. I would say just refreshing some of the indicators there. The argument hinged on three key areas. The first being heightened inflation risks as we've talked about earlier, which essentially leads to this increased desire to hold real assets. The second being the commodities themselves. They were very undervalued versus their own history, and also versus other assets, particularly financial assets. So after the recent rally, they still haven't really made a dent in terms of the long term undervaluation. And also, the third factor is that there's a big investor community underweight to real assets, because they've been burned for so long over the last decade holding commodities that have disappointed time and time again. And the same goes for commodity equities as well.

So refreshing the thesis today, we see that the structural arguments still holds and actually have strengthened in certain areas. So you mentioned copper, and I talked about energy earlier. These guys are very, very constrained in terms of the supply side response. And that's exactly the behavior we want to see for a supercycle. Before the pandemic, a lot of these miners, copper miners in particular, but also precious metals, miners like gold and silver guys. They were slashing exploration budgets, and weren't really making any new discoveries. And of course, the same goes with energy companies. And now this is very much remain the case going through the pandemic with prices much higher than they were. And it's not like these guys aren't able to bring back supply in line very quickly at all. Of course, there's a massive lag from getting a new mine set up, getting a new plants, new semiconductors up and running. So as demand comes back with the full reopening, really, we think that there's not going to be a sufficient supply response to meet it. And so we're likely to be in this kind of rolling scenario of persistent deficits, forcing more consolidation into the sector. And with that, it does bring the potential for explosive upside for commodities.

On the demand side, it's a bit more difficult to track this. We know that there's a structural bid for electrification and digitization of economies. Copper, of course, playing a pivotal role there. Now this is quite well known and it's probably in the price at this point. I would just say that is very uncomfortable just to see how hype the supercycle theme has become and seeing so many people chase higher prices in commodities. So we are starting to see some speculative shake outs a little bit of disbelief creep back in. But our hope is that we just get more headlines about the death of the supercycle. And hopefully that will mark a nice point to then add back some more exposure. But we do need to recognize that cyclical tailwinds are starting to fade.

As I mentioned earlier, that China's domestic data is weakening in spite of external inputs remaining strong. We've seen that their state reserves bureau starting to release stockpiled commodities back into the market. But of course nothing moves in a straight line for a long time.

So yeah, the question is very much. How do you square that circle between strengthening structural supports, weakening cyclical supports. I guess our judgment is that if the cyclical data continues to weaken, and particularly as well if dollar indicators show that there's more legs for the counter consensus rally, then it's probably best to take profits. Wait for a large shakeout, wait for more disbelief to return, and then buy back in for the next leg higher.

Erik: Let's talk about oil specifically because needless to say, oil is an input to the price of everything. Almost and it means that from an inflation standpoint, if oil prices keep going, it's going to fan the flames of inflation. We've come a long ways, we're back above the prices before the pandemic well above. We topped out here, we still have quite a ways to go.

Aaran: Yeah, I would say, going back to this structural arguments of just incredible supply constraints. It does seem as though the direction of travel is higher. It's just that it's not going to move in a straight line. I think a lot of course, depends on how OPEC responds. Of course, we've seen a bit more discord rather than harmony in recent meetings. I would say that the focus should be on how the supply side whether or not they're attracting capital back in. Because if we do start to see at the margin, new entrance into the market, and this is quite an important point for the capital cycle, because it is a cycle at the end of the day. It's not something that runs indefinitely. Because we've seen such fantastic returns for energy recently, that's inevitably going to lead to a little bit more capital creeping in.

And then as this capsule creeps in, it pushes down, future returns both for the shareholder and for the company. And then that's kind of in the seeds of that capital destruction, we then have, essentially a poor environment for shareholders where the supply side is too strong relative to demand. A lot of the lags that I was talking about earlier, those have now been brought forward. And a lot of these guys are now exploring more and doing more to just bring oil to the market at whatever cost. And I think until we see that behavior, it still makes sense to favor stronger oil prices, particularly as well, because we know that the travel season is going to be absolutely bonanza this summer. We've seen various company transcripts, that a lot of these guys are just seeing booming activity like never before. So I would say until we, until we run through that period until we see the supply stress start to ease. I think it does make sense to stick with the oil is going up thesis.

Erik: Let's talk about gold and precious metals, because boy gold really looked like the rally was taking off the bull market was you know above the 200 day moving average. Seemed to be taking off, then we had that one FOMC statement that just really put a wrinkle in things. And we are struggling to get above the moving averages. And now just today I'm looking as we're speaking on Wednesday at about \$1,830 on the gold tape. So we're recovering. Is it the beginning of another big move higher or are we just going to consolidate here for a while?

Aaran: Yeah, it's a tough one. Because I think the structural arguments are all in place for gold. As we discussed earlier, the fusion of fiscal and monetary policy, and the debasement of currency argument, and so forth. That's a good environment for gold. However, I think it's worth going back to the 70s. And remembering that gold crashed 40% during some of the high

inflation episodes. And this was really when real rates turned extremely negative. And the argument I guess at the time is that real rates could no longer go any more negative. So until we get to that point, I think it does make sense to stick to the gold is going up argument. But just understanding that there is a sweet spot in terms of real rates being negative, you don't want them to be too negative. Of course, I think the real tenure now is still around negative 1%. That's quite good for gold historically, in terms of the the forward returns that you see.

Cyclically, there's not a lot of interesting data to show for gold. As you mentioned, I think a lot of people have kind of chased the price higher that it's now starting to wane. We know that in August, at least positive seasonality can kick in. I think right now, it's probably not worth adding more exposure at this point. Probably wait for the seasonal flows to kick in. I would say as well that it's also worth thinking about structuring gold as an options play thinking about risk averse or call spreads. Because we know that gold options skew is quite high at the moment. And so there are other ways to play it. I think also with gold miners as well, we know that those guys are still very capital scarce. So the supply side argument still holds there. It's just a question of waiting for perhaps more of a shakeout before adding more exposure.

Erik: Aaran, we touched on stocks earlier, but I want to come back now with the benefit of the conversation that we've had about emerging markets, about precious metals, about inflation, and the dollar and all the rest. You know, one of the things Patrick's covered in all of his chart decks is the breadth divergence in the stock market where it seems like the FAANG stocks are most of the price action. that's just dragging everything else higher. Seems to me like there's a lot of signals to be concerned about in the stock market. You know, you're seeing breath signals, you're seeing valuation signals, or overvaluation signals. Yet, at the same time, it seems like you do want to be in some kind of equity exposure based on the outlook that you've described for inflation. So how do we reconcile that conundrum and figure out which stocks are actually smart ones to invest in?

Aaran: Yeah, I think you made a couple of great points there. I think, with respect to the breath arguments, I think particularly with FAANGs just dominating the price action right now. It's leading to a lot of opportunities in some of the unloved areas. Banks for instance have terrible breath right now. But of course, if we take a slightly longer term view, when we see such selling exhaustion in these more cyclical areas. Typically, that's a nice environment to just buy the dip. And, of course, we know with banks that these guys have been allocating back their loan loss reserves. They're going to pursue more shareholder friendly policies, buybacks, dividends, and so forth. Particularly with the credit cycle turning back up again, we think that's quite a nice environment to play for. So I'd say that's probably how I'd square it for looking at the terrible breath arguments in the shorter term.

Longer term, with respect to the inflation discussion we had, I would say that broadly, we would want to be exposed to companies that just have strong pricing power and the ability to preserve margins. And typically, these companies are in quite oligopolistic, quite anti-competitive industries. And broadly speaking, these are good environments for capital allocating CEOs. Because these guys, they don't need to worry so much about the threat of new entrants about

their products becoming obsolete, and so forth. And they can instead focus on boosting ROE for shareholders. But again, it's not as simple as allocating to a quality ETF, for instance. And I think stock selection is very important here again. On the one hand, we've got the anti-trust environment shifting, Biden's brought in a lot of big tech critics. These guys have spoken about the very poor record of historic antitrust enforcement. But of course, there are also some risks beyond big tech. The healthcare industry is quite vulnerable right now because we've seen a lot of FTC commissioners, these guys trying to aggressively block some of the M&A.

And because we know that there's a patent cliff for healthcare companies, with a lot of patents due to expire over the next couple of years. As these patents expire, new entrants come in, and they just drive down drug prices. So if the big guys can't acquire new companies to acquire new patents. This could really wipe out a stream of future earnings. So quality really does need to be looked at more carefully and understanding the quality of the management, understanding the quality of earnings becomes very, very important. And in terms of what we like within the quality basket, tobacco and food have cropped up is quite interesting to look into. Now, of course, tobacco names, these guys have been beaten up massively, and they face structural ESG headwinds.

So a lot of these names are capsule starved. But I do think it's worth investigating there. Understanding how some of these companies are allocating to heat not burn products. But also packaged food companies, these guys have seen, of course, surging costs of feed grain prices, is probably going to be a feature of the next year or so because we've also seen massive crop destruction and states extremes and weather and so forth. And typically what we see in the cycle of feed grain prices is that it actually leads the prices of chicken and beef. So this is actually quite a worrying development for inflation in the States, because now we've got food inflation to worry about alongside all of the other, quote unquote, transitory factors. So if we are heading into this in higher inflationary regime, holding some of these guys with pricing power, the ability to preserve margins, we think that makes a lot of sense.

Erik: Aaran, I can't thank you enough for a terrific interview. But before I let you go, I want to tell our listeners a little bit more about what you do at [Variant Perception](#). Is it just an institutional advisory service? Is there anything available to the retail component of the audience? And for our institutional listeners, how do they contact you to find out more about what you're doing?

Aaran: Thanks, Erik. So, [Variant Perception](#) is a data driven independent research provider. We generally cater to institutional clients where we use our leading indicators to give us the bird's eye view of what's going on. And then we pair that with bottom up work to identify actual investments and trades. So listeners can find us at [variantperception.com](#). To learn more about us and request a trial for our service. For our retail listeners, there is a blog that we post and updates once or twice a week. There we look at some sort of high value charts and various blog posts that we've been reading and writing about and we put that together.

Erik: Fantastic! We look forward to getting you back in a few months for another update. Patrick Ceresna and I will be back as [MacroVoices](#) continues right after this message from our sponsor.