



**MACRO Voices**  
with hedge fund manager Erik Townsend

## Darius Dale: A Recession Is The Bull Case

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**Erik:** Joining me now is [42 Macro](#) founder Darius Dale. Darius prepared a terrific and very extensive slide deck to accompany today's interview. Listeners, you'll find the download link in your research roundup email. If you don't have a research roundup email, just go to our homepage [macrovoices.com](http://macrovoices.com). Look for the red button above Darius' picture that says looking for the downloads.

Darius, the last time that we had you on macro voices was January 13 of 2022. The S&P was at \$4700 or so just a little bit off of its all time highs. Everybody was just singing the Goldilocks story of how everything was great. You actually used the word crash to describe what you thought might be coming for the stock market in 2022. I think you're the only guest in that timeframe that we've had who used that word. So biggest question in my mind is okay, you definitely get some credit for seeing that something was coming. But I think that what we've seen so far has been a very big sell off. But frankly, it's been pretty orderly. So is the crash that you were expecting. Did that already happen with the big sell off that we've seen or is the crash yet to come? And if so, how bad could it get?

**Darius:** Hey Erik, thanks for having me back on. And I really appreciate the very kind introduction. You know, I don't consider myself there was others making crash calls back then. But we certainly I believe we came to that conclusion through a variety of very rigorous and repeatable quantitative processes. And so, I'd love to unpack them in terms of what they're seeing today. Because obviously, you've either made money on the crash call or you didn't at this point.

**Erik:** Ok so think the crash is over then?

**Darius:** No, absolutely not. I think we're sort of, you know, let's call it inning five to six maybe in terms of the market cycle downturn. In terms of the market pricing in what we think are simultaneous slowdowns in liquidity cycle, growth cycle and profit cycle. I think and we can unpack these things in either order. But I think we're probably somewhere between inning four or inning five in the liquidity cycle downturn. I think we're somewhere similarly in inning four to five of the growth cycle downturn with a significant slowdown ahead of us still. And we're likely, somewhere between inning one and two of the profit cycle downturn. And I think the earnings recession is not something that should be discounted by the average investor, and in terms of materializing over the next several quarters.

**Erik:** Well Darius on that note, let's go ahead and cover those three cycles that you just described the liquidity cycle, the growth cycle and the profit cycle. And because I got an advance copy of your deck, I know you've also got the inflation cycle. So let's cover that one, too. That's four different cycles that we need to get into. Listeners, you're going to find that Darius is slide decks are extremely detailed, we're not going to have time for all of the slides. So I'm going to suggest areas that we jump forward all the way to page 71 in your slide deck. Listeners, I still encourage you to peruse the entire deck at your leisure. But let's get into the liquidity cycle, which starts on page 71.

**Darius:** Yeah, absolutely. So just as a quick background of these presentations. We put together this what we call our macro scouting report at the beginning of every month. It's effectively trying to help investors contextualize where they are in each of those four cycles with a specific towards asset allocation and portfolio construction. We are very specific about the recommendations that we make, in terms of the risk management side of things, because sort of came up cutting my teeth through that lens, as opposed to sort of your traditional macro economist lens. So with pontifications, but anyway, so let's just hop right into the start with the liquidity cycle, because I think that's what's driving the boat here. If you look at slide 71, I think this is a chart we're all familiar with at this point in time, if only because Jay Powell continues to harp on it every other FOMC press conference, which is the ratio between sort of JOLTS total and job openings relative to total number of unemployed are obviously well off the top of the chart. And so this is the number one thing I think the Fed is focused on in conjunction with on slide 73, you look at the sort of the sort of acceleration in wage growth, particularly as denoted by the employment cost index that's at an all time high on a year over year rate of change basis with the quits rate in the jolts time series in that data set, kind of coming off an all time high. It's telling you that this is as tight as the labor market, at least as it relates to these datasets as we've ever seen. And that's very clearly got the Fed very much engaged in withdrawing liquidity.

This is something we can see on slide 75, whether you look at the pricing of Fed funds rate expectations, breaking out to new highs recently on the back of that hawkish inflation print on the back of Powell's sort of confirmation of that on the other side of the hawkish inflation print, whether you look at one year OIS, two year forward OIS. These are overnight index swap spreads relative to the Fed funds rate. You know, we're clearly on a warpath to sort of tighten financial conditions from that perspective. And then we you sort of look at it from a net liquidity perspective because I think that's equally as important if you think about the shape and composition of the Fed's balance sheet relative to things like the treasury general account balance, we think that the put liquidity is poised to climb meaningfully over the medium term. And part of the reason for that is if you can look at slide 77. Part of the reason that liquidity is poised to decline meaningfully in the medium term are twofold. One, we're very much likely to see a continued acceleration in the reserve repo balance, which would effectively drain the money out of the overall economy and into the sort of black hole if you will on the Fed's balance sheet. And part of the reason we're going to continue to see an aggressive repricing higher in RRP balances is the fact that the Fed is the Treasury Department is over capitalized from the

perspective of you know, just to over capitalize on the fact of tax receipts, and that over capitalization in conjunction with Yellen's own desire to combat inflation.

If you look at slide 78, has led to a pretty aggressive shortage of T-bills. And we can observe this shortage of T-bills looking at the spread between T-bill yields and similar maturity OIS. That negative spread denotes that the market is very much starved of T-bills, and therefore Tebow prices are very elevated relative to where they would be on a like for like basis. And so this brings me to my sort of last couple of slides that I think are really important to take some time and explain. When you sort of aggregate all the different dynamics that are sort of influencing that liquidity. If you look at slide 79, whether it be the Fed's balance sheet, the change in the treasurer general account balance, and the change in the reverse repo balance, it's very likely that between June 1 and December 31 of this year, we see \$915 billion or somewhere thereabouts drained from the financial sector between now and the end of the year. Why is that number significant? Well, the numbers significant because that's greater than the entire sum of the quantitative tightening experience we observed from 2017 through 2019, which occurred over a span of 21 months. We're trying to drain even more liquidity out of the financial sector in a third of the time. And so to me, I think the if you look at on a fair value basis, just in terms of our net liquidity analysis stacking up, it's suggestive that the fair value for the S&P at the end of that process are on December 31, is somewhere around 2900. Now, do I think we're going to get there? probably no and that's what slide 80 suggests which is if you look at our forecast for core PCE, particularly on a three-month annualized basis. We start to break down below 3% which I think would, you know, just given how much damage we've done to the economy of financial markets already, I think that would represent some form of clear and convincing evidence for Powell to sort of take his foot off the brake. We start to break down below 3% somewhere in September, that they'll be reported in late October. And by November 2 Fed meeting, you're probably going to start to see them ease up a bit from tightening financial conditions. But between now and then, we're going to have a very bumpy ride lower, as indicated by slide 79.

**Erik:** Now, a lot of experts are saying that the feds hands are tied here. In other words, people who believe in the so-called fed put are being told to be careful, the Fed doesn't really have the option because of the need to fight inflation. They don't really have the ability to save the market or rescue the market. But it sounds like you're saying they really do.

**Darius:** Yeah, they can if... look, inflation has to behave, right. And that's the that's the beauty of doing forecasts. And also, the pain of doing forecasts is, there's always forecast error when you think about the world on an ex-ante basis. And so, the size of those blue bars on slide 80 could all just be higher, just given the structural inflation dynamics we're reserving in the economy. And if you jump ahead to slide 113, where we show what the bear case is, and again, this was the bear case in our opinion before we got the May inflation data, and the reality is we're actually getting a lot of our bear case signals starting to confirm, which is we're seeing a deepening and broadening of inflation pressure, as evidenced by you look at something like median CPI, which is the median inflation rate of everything in the CPI basket, accelerating to an all time high on both a year over year and three month annualized basis.

You look at sticky CPI accelerating to 30+ year highs on a three month annualized and you over your basis as well. And then I think to me, the biggest dynamic that could make inflation statistics, or inflation forecasts for peaking and eventual rolling of inflation, by the kind of later Q3, early Q4. What will make that very wrong, is if we continue to see a wrestling of the baton from goods disinflation, or what had been goods inflation, it actually started to pick back up in May to services inflation. Services inflation if you look at core services accelerating to 7.8% on a three-month annualized basis. That's the highest print we've seen in over 30 years. If that becomes the dominant driver of inflation, it's look out above. Because of this, we know that owners equivalent rent and shelter inflation as a function of that are likely to continue higher in the coming months. And this is what we show on slide 114, which is the spread between, you know home price appreciation as measured by the CoreLogic Case Shiller Index, relative to owners equivalent rent. Historically peaks in this spread have presaged 12 to 18 month, massive accelerations in OER.

And this is a couple of reasons why that is the case. One, it's fundamental. You price people out of the housing markets, people have to start the rent. And obviously, you inflate rental demand relative to supply. Creates higher prices but secondarily as a technical factor as well, the BLS measures OER in sort of biannual panels, which slows down it's sort of sensitivity to lag, it really lags it's changes to changes in the overall housing market. So we have a lot of accumulated inflation to occur in reported inflation statistics through the services sector lens. And in our opinion, if that really starts the rest of the time from goods inflation, we're going to see an even further deepening and broadening of inflation and an even further acceleration in sticky inflation pressures, which means going back to answer your question, Erik. We may not be able to pause or pivot by November 2, that's just the earliest our model suggesting the Fed can pivot and obviously, it's mid to late June. So that's a problem.

**Erik:** Darius, I'd like to ask you about my own views on inflation because you're much more data driven than I am. I'm more of a thematic thinker. And I just listened to the last presser with Powell. And the thing that really jumped off the page for me was when Powell said, look, the reason that the rest of the world cares primarily about headline inflation, the actual cost of goods and services to consumers. But the reason that the Fed only focuses on core inflation, that's x food and energy is because the tools that are available to the Fed don't work on food and energy. And I just thought to myself, holy crap, the perfect storm that I see brewing here is an energy and food crisis beginning this summer, where we've already got energy prices running out of control. I predict that's going to get worse. And a lot of people are predicting a coming global food crisis because of the Russia-Ukraine War, where Russia and Ukraine are where a lot of the potash that's used to produce fertilizers for the whole world comes from. They're expecting, there's not going to be enough fertilizer to fertilize crops, there's not going to be enough food to feed people. And we're going to have massive, massive price inflation in food and energy. The very thing that Jay Powell just admitted the Fed has absolutely no control over. That sounds to me, like the recipe for a situation where the Fed is going to have to go all hands on deck to fight inflation at all costs. And that potentially, I would think, could spell an outright crash in equity markets. Am I missing anything there?

**Darius:** No, you're not my friend. I mean, so obviously, this could get a lot worse right?

**Erik:** Well that's not good. I am really hoping that you would pull out the go to slide 423 of my deck, and I'll show you why you're wrong. Help me out here.

**Darius:** So let me start by saying that it is already getting worse. If you look at food inflation, food CPI on a three-month annualized basis at 12.2%. That's the fastest rate we've seen in 40 years for 42 years to be exact. And energy inflation, look at on a year over year rate of change basis at 35%. That's the fastest we've seen since September 05. So, we already know that this is already a problem. If it gets worse, according to all the factors that you just highlighted. It's going to be a secondary impulse on inflation relative to what I believe will be the primary impulse on inflation over the summer, which are services inflation. But I think more importantly, I think one thing we have to watch out for, at least with respect to crude oil demand and energy demand, specifically, is a material slowdown in the growth cycle. You know, we can get back to the inflation cycle later in the interview. But I do believe it's important to contextualize the magnitude of the deceleration and growth walking into. You know, really starting in the early part of the third quarter that should persist really into the early part of next year. So if we don't mind, I think it's important to transition to a growth cycle in that we can go back to the introduced I go from there if that's cool.

**Erik:** That's cool. Let's go back to slide 81 there. I think that's the beginning of where you talk about the growth cycle. Give us the story on growth.

**Darius:** Yeah, absolutely. So, on slide 81. In the top panel, we show real 10 year yields. So the 10 year nominal Treasury yield as deflated by the Cleveland Fed's 10 year forward inflation expectation. This allows us to take create the longest time series for 10 year yields on an ex-ante basis, not looking at lagged CPI. And historically, whenever you've seen sort of two sigma delta breakouts in this yield on a trailing three year basis. All hell breaks loose in the economy for a lack of a better word. Um, you've seen very significant slowdowns in something like the ISM manufacturing PMI as a proxy for growth in the economy as denoted by those dotted black lines. On slide 82, it's the same analysis we just show it looking at corporate borrowing costs, is the motive by the Bloomberg Barclays aggregate credit index yield to worst and every single time we've seen a two sigma breakout in that we've always seen a significant slowdown in growth and as you I can see this is one of the worst. You know, we've seen on record going back to date, there's a three sigma breakout on corporate borrowing costs on a trailing year for year basis.

And then lastly this shocking for lack of a better term, biggest shock in mortgage rates we've ever seen in the time series. And again, it only goes back to 98 in terms of nationwide mortgage rates, but at least in this in this 20 plus year time series, this is by far the biggest shock on a trailing three year Z-score basis at 3.2 or 3.3 sigma. And so historically, we've always seen a pretty significant slowdown in the PMIs, etc, as a function of that. So we already know, the forward guidance that the Fed has instituted into the market into this tightening cycle, in

conjunction with the actual tightening they're doing, obviously, with the right policy rates in the balance sheet is already accumulated a lot of slowing that we're likely have ahead of us in the coming two to three quarters. The next slide shows energy crises are obviously very much in an energy crisis. And how we define that is a doubling of energy prices of doubling of crude oil prices on a trailing two year basis. We got data going back to the early 70s and we've seen you let's call it seven, eight energy crises, and they always tend to cause big problems in the economy where most are marked by recession and significant drawdowns in the equity market. Some are only marked by significant drawdowns in the equity market. If you look at something like 2018. But there's really only one in this entire in size, that which is 2005 where we had an energy crisis and we didn't see a significant slowing or recession in the economy and/or a crash in the stock market.

And so to me, I think the just from a probability standpoint, the world is the spectrum of catalyst is very much stacked against anything but a significant slowdown in growth. And this is why, when we get to slide 85, we talked about this, we were talking about this for a while now, which is a soft landing is extremely unlikely just given the starting point, right? Like we were effectively starting a tightening cycle at a gainfully and fully employed economy. If you look at the level of the unemployment rate, relative to the onset of the Fed's tightening cycle, it's the lowest it's ever been. And so obviously, the Fed has a very poor track record in history, I want to say, 11 in the last 14 tightening cycles have ended in recession. So that was always working against them to begin with. But 1/15th one here of the last 15 is starting from a much lower level of unemployment rate, much higher level of total employment. And so in our opinion, the likelihood of a soft landing was always very low. And this, to me is the biggest issue with respect to everything I've just said for the last few minutes, which is on slide 86, Growth estimates.

The red line just shows the consensus, Bloomberg consensus, Wall Street economists, folks who sit in seats like mine do with their expectation for real GDP growth is for 2022. And it's, come down, it peaked to somewhere around, let's call it 3.5%-4%. But it's now down at 2.6%, which is still 20 basis points faster than our trend growth rate from 2015 to 2019. I don't know what the I don't know the quality of drugs these folks are smoking, but it's to me, it's this is the most ridiculous slide in the deck. We are not going to grow above trend in 2022. And that, in my opinion, if we have a very perception right now, it's we're not going to grow above trend by the end of the year. And we're very much likely to head into something that may resemble an earnings recession, if not an outright recession.

**Erik:** Darius, I want to talk a little more about what you just said about recessions and what's coming and so forth because exactly as you said, I think it's very clear that we are headed toward recession. But frankly, even if I'm wrong about that, I think that the Fed although they will never admit to it needs a recession in order to fight inflation. So even if miraculously, you and I both got this wrong, and growth expectations that you're showing on this chart turn out to be accurate. And that's really where the economy is headed. I think that if that happens, it means inflation runs out of control, and the Fed has to work harder to fight inflation until they eventually do induce a recession. You're much more data driven. That sounds good in my head, but I can't prove it. Can you?

**Darius:** Yeah, so I think we're arriving at a lot of the same conclusions, Erik. So I think you're giving yourself enough credit for being a data driven geek like myself but I'll start by saying, you know...

**Erik:** Well I give myself more credit, I make this shit up without the data so if I'm getting it right...

**Darius:** Fair enough. Fair enough. Well, the jury's still out... You know, we're speaking ex-ante here. So. And I do agree with you that the only way to get significant reduction in price appreciation in general price level of the economy is a significant reduction in demand. Because clearly the supply side of the equation is not going to come back anytime soon. Whether you look at the decline in energy reserves or declining or the I don't know if you know what we're to use in terms of what's going on the agricultural supply in the mix globally. And then obviously, we have a reduction in labor supply, which I think we have that on slide 72. But I think the channel that the Fed is likely to try to work through is again, a reduction in corporate profitability that ultimately slows down demand for labor. Slows down the corporates ability and willingness to pass on price increases and ultimately to pass on wages. And we can kind of see this, if you look at slide 87, corporate profitability is very cyclically elevated right now. At the top panel, we show the S&P 500 operating margin at 16%. That's basically 200 basis points higher than it's ever peaked at. And so, this is telling you that corporations are feeling very, very fine and dandy about passing on, the very aggressive rising unit labor costs, which is the middle panel in this chart onto consumers, right? You know they're saying well we're seeing this unit labor cost inflation 40-year high in that metric so let's just pass it on to consumers. And we can obviously observe this on slide 88. The red line shows corporate profits as a percent of GDP, those are structurally elevated as well.

So if you have corporate profitability cyclically elevated and structurally elevated because of this animal spirit mindset, that we can just push through price, and hire whoever we want, and pay them whatever we want. But ultimately, I think that's that, in conjunction with our views on the growth cycle, that that expectation is likely to be proven and valid in the coming quarters. Part of the reason I believe that is, if you look at the inventory cycle on slide 89, basically, 4/5th of our growth of our headline GDP growth in the last few quarters has come from inventory build, that's not a good sign in terms of the likely ability of corporations to pass through these prices. And so ultimately, outside 90, we're taking the view that earnings estimates, much like consensus growth estimates remain out to lunch. And if those are out to lunch, that's a headwind for the market. Now, if they correct and get in line with some reasonable expectations, then that would be okay. But they're not in line with reasonable expectations.

And the last thing I'll say on this is jump ahead to slide 118 where we show corporate profitability on trailing 12-month basis. And historically, you've seen these draw downs in corporate profitability. And as you show that measure that as a breakdown below the trailing three year mean, whenever we've seen these breakdowns, you've typically coincided with recessions, because obviously, you think about the sort of micro economic standpoint, which is

corporations, they get scared, they don't pass on costs, they don't hire, they don't push through wages. And that overall reduces the level of demand in the broader economy and slows inflation but also crushes growth in the process. And so to answer your question, in a very long winded manner, yeah, the Fed needs a recession, or something that looks like a recession to get inflation down.

**Erik:** Now, the topic of corporate profits that you've just described, has gotten the attention of the Biden administration. So I'd like to talk now about what policy interventions might be coming and whether or not they would be effective. I'm guessing that you and I could probably agree that price controls have historically not worked very well. But that's not going to stop politicians from implementing them. And already, we've seen President Biden literally threatening the oil industry saying, look, the profit margins on refining are just too high. We've got gasoline prices, which are higher on an adjusted basis based on the price of crude oil. We've had crude oil, just as expensive as it is right now before but gasoline prices were not this high. Refining costs are the problem. Of course, the Biden administration does not acknowledge that their own policies have resulted in a decline in refining capacity in the United States, which is unlikely to ever be reversed. But you know that's not going to come into the policy discussion. So I think Darius, we could be headed toward price controls in some markets and other strong efforts on a policy front to try to reduce those corporate profits in the name of protecting the US consumer. That sounds good. But what could go wrong?

**Darius:** Well, I'll start by saying it does not sound good if you're long risk. Price controls are incredibly bearish, for obvious reasons but also for not obvious reasons, right? All you're really doing is taking some short term gain for guaranteed long term pain. And that's what price controls are because ultimately, what they do is they further push the supply curve inward. Right, you're effectively you're disincentivizing risk takers or capital allocators to create new supply in various industries whenever you slap on price controls. So I have to have a view that it's going to be very difficult to push through anything of substance from a political standpoint. And part of the reason for this goes back to our discussion from over a year ago now Erik in December of 2021 when I say hey, look, the US is something like an emerging market from the perspective of political risk. We have on slide 67 through 70, what we call our four horsemen of economic risk, these are the kinds of things that you need to understand in order to effectively price risk, price rates, price currencies, price valuation on a relative basis across geographies, demographics, leverage, politics, and balance of payments. And if you look at slide 69, politics where we show, sort of something like the Gini Coefficient, on the x-axis is a proxy for income inequality in the country and on the y-axis, we show the prime working age employment to population ratio. You look at where the location of our data is on the US relative to, the surrounding dots. I mean, these are emerging market economies, these are not Western societies, Japan, etc, Europe, you know, where there's a lot more harmony a lot less inequality and political dissension. No, this is what's fueling the zeitgeist of pissed off fitness for lack of a better term. And in my opinion, I think this sort of Zeitgeist has always been there. It's underlying a lot of the distress we're seeing in the political system, which ultimately tells me that into a midterm election cycle, we're not going to see anything of substance. Congress is out to lunch, and has been out to lunch partially as a function of this, but in my opinion, going back to the call



we made in early November of last year to get out of high beta risk assets. They're out to lunch because inflation is a big issue as well.

**Erik:** Darius, unfortunately, everything that you're telling me is just reconfirming my greatest fears, which is it sounds like we're headed toward a worse than 1970s secular stagflation, where we see continued commodity price inflation, which causes a recession, everybody assumes that the recession is going to bring commodity prices dramatically lower. But everything we've done in terms of policy assures that they don't come any lower than they stay high, that creates a stagflationary environment that we could potentially be stuck in for years. Now, dude, you got 138 slides in the deck, show me the one that tells me I'm wrong. I so want to be wrong about that, that there's no stagflation coming, and we don't have years of economic woes ahead of us.

**Darius:** So, I'll do my best. So if you go to slide 121, where we show our secular inflation model. This is a dynamic factor model that looks at 62 sort of independent variables on, that have historically been proven to be factors in driving inflation higher and lower over the last several decades. And, when we do the math on this model, and delta adjust everything in terms of its impact on something like core PCE. We're only really getting to on the upper end of this sort of projection, something that's about 70 basis points higher than where core PCE is trended in the prior decade. So, in the prior decade from 2010 to 2019, we saw core PCE trend at 1.6%. In terms of our model, this is a secular inflation model is suggesting that, the upper boundary of that is, in terms of on a trend basis, is somewhere around 2.3% in this in this current decade. We're obviously tracking a little bit higher than that at 2.8% decade to date. But obviously, we're probably going to get a recession or two in there that'll get that number down.

So to push back against your viewpoint, we're not seeing a wholesale, material jump condition higher in inflation. Now, this is material from the perspective of fixed income allocation, etc. You know, we're talking about on the high end a 40% phase transition higher in trend core PCE inflation. That is significant from an asset allocation perspective but I don't think it meets the sort of merits of what you're sort of talking about from a longer term secular inflation perspective. However, I do believe there's something else that could be added to this because this is all the dynamics that really influence core PCE which obviously strips out, quote, unquote, volatile food and energy prices that are there, that means you look at slide 106. I think 106 and 107 really support app at support to what you're sort of saying from a longer term energy and food inflation perspective. So slide 106 just shows sort of the change, I was sort of the net capital flow into or out of the US economy, as measured by the change in our net international investment position. And what we're seeing is this massive capital inflow, in the last sort of let's call it four years, particularly the last two years into the US economy and think about this from the perspective of what's been happening. It's been a perfect storm for everyone to park funds in the US, right, like we overstimulated not only on a historical basis relative to any stimulus we've ever done historically, but also significantly overstimulated relative to our peer economies and other economies that you could have chosen to invest in the last couple of years.

And then we obviously got vaccines faster, we have, sort of a libertarian bias to our voter base. And so we were able to significantly outperform both economically and from the perspective of earnings growth in the last few years, which is why we've seen nearly \$7 trillion of capital flow into US assets in the last couple of years. This, not unlike the period we saw, kind of in the late 90s, when the whole world was blowing up yet the Asian financial crisis, the maximum to the crisis, the Russian default, etc. It made the US a very attractive destination for capital and oh, by the way, we had this thing called, the development of the Internet, etc. It's not very much not unlike the development of COVID viruses, etc. While you fast forward to where we're likely to be on the other side of the eventual dovish pivot. After we've seen enough carnage of financial markets, after we've seen enough of a growth slowdown that weighs on inflation statistics and inflation expectations, we're going to be talking about a Federal Reserve that's going to go from as hawkish, as with anything we've seen since Volcker to quite possibly, very dovish, as dovish as Yellen or Bernanke. Let's call it the next 9 to 12 months. And on the other side of that pivot, the dollar is going to be secularly challenged as a function of all this accumulated capital flow into the US economy. I mean, you're talking about a significant depreciation of the dollar, let's call it throughout 2022 and 2023. And even beyond that as a function of the unwind of that positioning, and that's obviously going to favor commodity prices on a secular basis. It's going to favor emerging market assets. I'm talking about slide 107 here now, it's gonna favor emerging market assets in lieu of US assets. It is going to favor cyclicals and little defensives. It is basically the opposite trade that anyone's been forced to have on by the market or their boss in the last sort of decade plus. And so to me to answer your question, when you look at the secular drivers of the core inflation that we have in the economy, maybe at best, it's somewhere 40 to 50%, higher on a trend basis, but then you look at the secular drivers of the non-core inflation could be much, much higher over the over the coming decades. So I don't disagree with what you're saying.

**Erik:** Let's come back to my thesis of a food and energy driven inflation crisis. And I guess, you know, if we can get back to the 2.3 or 2.8%, and two point anything percent. Sounds great to me. But what I see is, we've already gotten this kind of runaway situation with inflation. And everybody politically wants to blame Vladimir Putin for all of it. Biden calls it the Putin price hike. And I think well wait a minute, let's look at this objectively. Russia hasn't done anything to intentionally create commodity price inflation. The sanctions that the West imposed, as far as I can see, are kind of a self-inflicted inflation wound. And yeah, they did it for a reason politically that was important because of the atrocities that are occurring in Ukraine. I get it. I'm not questioning that. But the price hike was imposed in my perception by the Western sanctions that were levied against Russia saying, we're not going to buy your oil anymore. Well, if we're not going to buy their oil that's going to disrupt the oil market price is going to go up. And we've already seen that happen. We haven't even gotten to the point where Russia says, Hey, let's take this opportunity to squeeze the west by intentionally taking action on Russia's part to push commodity prices harder, and use inflation as a tool of economic warfare. Now, meanwhile, Sergey Glazyev, Russia's chief architect of economics has laid out a new future, where he describes not that I predicted it in my book four years ago, not to toot my own horn too much. But he describes a digital currency system, which is backed by natural resources. If Russia wants to put the squeeze on the west, my prediction is they wait until the West is done self

inflicting its own inflation wounds. And then just when the US finally realizes, okay, stagflation has gotten to the point where we have to change course, we can't afford any more sanctions against Russia, we're going to lift them because we're economically given no choice. I predict that's when Russia says, oh, yeah, guess what, we don't want to sell you any oil. At this point, we're pissed off. Well, how does that fit into this whole equation?

**Darius:** Erik, you hit on this masterfully. And I want to just take like a step back, before we get back into the deck to just make one point of this entire presentation. The whole point of this entire deck is to help investors understand that the left tail of outcomes is much wider and much fatter in shape than I think the average investor realizes I think the average investor thinks we're a lot closer to the far left end of the distribution of probable outcomes economically, and financial market wise than we believe. We're talking about the base case being something that's pretty negative, even from this starting point. But I think you just outlined something that's even more negative than I think even our base case is at [42 Macro](#). So a couple things, just get back into the deck, you mentioned that, sort of there's this narrative are out there that Russia has caused a lot of inflation, which I find to be preposterous. I mean, just look at slide five, the third to the last line, and that table above our US grid battle chart just shows headline CPI and just the trends in headline CPI have been and in January 22 before Russia did anything to harm a single Ukrainian across any Ukrainian border. Headline CPI was 7.5%, year over year, right? Like we're at 8.6%. Now, so let's say Russia, if Russia calls 100% of the incremental inflation, they've only cause 90 basis points of inflation from that perspective. And then secondarily, going back to slide 113, where we should just break down all the various major components of CPI. If you look kind of midway down to that table, where we show core services inflation. Stuff that Russia has nothing to do with... These are services inflation, you know, me getting my utility bill, me going to the theater, getting an airplane ticket number. You know all this stuff that Russia has very little to no negligible impact on and again at 5.2% year over year that's fastest since June of 91. 7.8% through month annualized, which obviously means the time series continues to accelerate this fastest since August of 1990. And so to me, I think there's the narrative that Russia is causing a lot of this inflation is a very dangerous narrative, because it doesn't take into account all these other factors that are really contributing to the inflation story, and more importantly, all the other factors that are going to fall out of the inflation story, which again, is a significant slowdown in growth and a potential earnings recession in the US economy.

**Erik:** Well Darius, I think it's really important that we stress also that, yeah, sure, to some extent, the Russia-Ukraine war has been a big driver of inflation. But the thing is, these have been self inflicted wounds on the part of the West. The reason that we've had that inflation is because of the sanctions imposed on Russia by the West and the knock on effects that they have. So far as I'm concerned, there hasn't been any action taken intentionally by Russia to say, let's do such and such in order to cause more inflation that's harmful to the west. But if you think about what could Russia do if they intentionally wanted to harm the West, using inflation as a tool of economic warfare. Well, hang on a second, Darius, we just talked about Jay Powell admitting publicly that the two things that the Fed cannot control are food and energy inflation, because they don't have any tools to combat that. Russia is a big enough producer of oil and natural gas, that through their own policies through their own decision not to sell energy to the

west. They can blow up the global energy price as much as they want to. And oh, by the way, the only way that we can possibly make enough food to feed all the people on this planet is to fertilize crops. And guess where most of the potash used to create the fertilizer comes from? Russia and Ukraine. It seems to me that Russia is in an incredibly powerful position to use tools of economic warfare against the West, which it hasn't even begun to use, yet. Would you agree and what is your data tell you about how bad it could get if Russia started using those tools?

**Darius:** So Erik, I appreciate that. I don't know if I'm the perfect person to, to maybe answer the question to understand the full range of sort of probable outcomes if Russia does elect to play economic war games, maybe more than it already has. But I do think I have a good enough understanding of what the terminal downside would be, if you look at something like risk assets. So let's jump to slide 91 and 92. On slide 91, we show looking at the Goldman Sachs financial index and in the blue, that's the longest term time series for the financial conditions index, so I like to use that one just to pull the chart back. And as you can see, one, we're barely we're still technically in accommodative territory. And we're well off the kind of levels of financial tightening that we've historically seen in bear markets of consequence, obviously 2000 to 2002, and 2007 2009 would be the last two bear markets of consequence. And then you look at something like the S&P 500 next 12 months earnings yield, which is the red line in this chart at only 6.07%. You're again, we're well off levels from a cheapness of the market perspective that will catalyze you know, broad based buying hold your nose style buying from large scale asset managers, pension funds, endowments, etc. And so it's telling you that we have a long way to go down from that perspective. Slide 92 sort of looks at this and tries to tackle this question from another angle, the red line in this chart on slide 92 shows the ratio of high beta stocks in the S&P 500 relative to the ratio of low beta stocks. And as you can see, we've suffered a roughly 23% drawdown peak to trough or peak to present drawdown in this index year or really since the highs we've seen late last year, we made the call to get out of high beta risk assets. You know, historically in these sort of growth cycle downturns is of course, we're currently in one, we've seen somewhere between a 35 to 40% decline in this high beta, low beta ratio, so at only down 23%. It's effectively saying that, hey, if we don't go into recession, we're still only probably a little bit more than halfway in terms of the market ultimately pricing in a growth cycle downturn. Obviously, if we go into recession, we're talking about something that's on the order of 50 to 60% down in this index, which means we were only somewhere closer to half or even a third down.

A few more charts I'd highlight on this. If you look at skip ahead to slide 96. When you look at the positioning of the market. And this is something that really kind of, this always gets me going because you hear all this stuff about sentiment this, sentiment that, everyone's bearish this, everyone's bearish that. But then when you actually look at the actual data, the flow of funds data, the Fed's flow of funds data, the US household sector, as you know, is long stocks as it has ever been. If you look at the ratio of equity ownership to overall net worth, and we were coming off an all time high, and historically peaks in this spread, cyclical peaks, and the spread of catalyze, you know, median S&P 500 drawdown to 22%. So that's right to where we are today. So you could say from this perspective of this analysis, maybe were fully priced in in terms of the drawdown we might see, but I would argue maybe the drawdown needs to be more

significant just given the starting point of overall all time high equity ownership. Secondly, moving ahead, on slide 97, you look at this from a business cycle standpoint, and what I'm showing here, just as a proxy for the business cycle, the cyclical components of the business cycle, we're showing the Conference Board's labor differential survey, and we're coming off an all time high here. And historically speaking, cyclical peaks in this indicator have coincided with 35% declines on a medium basis in the S&P 500. So clearly not anywhere near where we get from the business cycle perspective.

And then lastly on 98, valuation to me, this was always the biggest problem with asset markets. The positioning and evaluation associated with that positioning. You looking at the blue line is the s&p 500 through earnings yield, the earnings yield as deflated by sort of realized CPI, and that minus 3.3%, we're coming off an all time low or an all time high, richness valuation of the S&P 500 on a real basis. And so, historically, we've seen six of those inversions since going back to the late 70s and the median drawdown is 41%. And so you're talking about right now we're down somewhere around 20% on the S&P. We're in the middle of a bear market bounce again, that is what it is, it'll resolve itself. But ultimately, you're talking about the market having another, 2000 basis points of downside or at least 1500 to 2000 basis points of downside where you look at it from the perspective of the business cycle and valuation. So to me, these risks were always there and ever present. And we've been talking about these slides and these decks for quarters now at this point. I'm telling clients at [42 Macro](#) but when you layer on the fact that Russia could start to really make this a lot worse from an inflation perspective and then obviously a Fed reaction function perspective is telling me that these slides may in fact, the medians on these slides may in fact be too kind.

**Erik:** Well, let's put some hard numbers on all of this then because I thought you said earlier in this interview, that some of your projections were kind of implying that 2900 on the S&P would be about as bad as it could get. But you didn't think it would get that bad because the Fed would intervene. I've tried to counter that with a few arguments as to why I think if Russia decides to play hardball, which I don't think they've actually done yet. I think that the feds hands might be tied a little bit. So is 2900 on the S&P is that the worst it could get or is it actually maybe get worse than that.

**Darius:** So again, going back to slide 79, 2900 on the S&P would be fair value, if our net liquidity analysis which again takes into account the changes in the Fed's balance sheet for quantitative tightening the change in the treasury general account balance, and ultimately the likely to project a change in the reverse repo facility balance, if we get down to the levels we have projected from a net liquidity perspective, you're talking about the red line being dragged down alongside the blue line to something that looks like around 2900 on the S&P. And at 2900 on the S&P from the all time high on January 4, that is about down 40%. Right? So I mean, I think, again the bear case is very significant, and it's a lot fatter tailed. And there's a lot more sort of girth to the tail than I think the average investor realize which to me is again, the overall arching point of this presentation. It's not to come out and be bearish and scare people. It's just to help them carefully, thoughtfully manage risk around a lot of these cyclical dynamics. Knock on wood, we've done a dang good job, year-to-date actually help investors and actually make

money as opposed to lose lots of it. If you look at our portfolio construction, on slide 57 and 58, which, fortunately for this particular presentation we have blacked out of respect and admiration for our paying clients.

**Erik:** Okay Darius. So as we tie all of this together, we've talked about why you and I both think that there's probably still quite a bit of downside left to go, you're saying fifth or sixth inning or so in terms of these cycles. I'm talking about a thematic situation, which I'm concerned about of stagflation really getting worse with an energy and food lead inflation crisis, really starting to heat up over the summer and into the fall. But our job is to also think about how we could be steering people in the wrong direction. So is there anything in the data that says maybe something could happen that you and I are both wrong, and the bottom is already in and it's all uphill from here for the stock market?

**Darius:** Yeah, so that's on slide three, where we show our key takeaways, our bull case scenario was always a low probability. But in my opinion, I think it's a low and declining probability now, which is, a really sharp decline in inflation inflates real incomes and perpetuates a sort of, or staves off this sort of sharper growth cycle downturn, and ultimately staves off a significant profit cycle downturn or at least punts both of those dynamics well into next year. We're not getting that obviously, in my opinion, I think we're moving in the wrong direction for that risk. And ultimately, I think what's happened since the May CPI report, that was obviously reported a couple of weeks ago, what really has happened, we've taken the probability associated with that Goldilocks scenario from let's say, I don't know less than a third 25% to something that's probably close to like 10%. It's now a 10 Delta call option, as opposed to a 25 Delta call option, in my opinion.

**Erik:** Well, it sounds like my thematic views and your Data Driven Views are very much coming to the same conclusion. Because what I've been saying is, I need to be proven wrong here on inflation, because what can change all of this and completely negate my bearish view would be if somehow, some way inflation really was transitory, we're headed back down to 2%. And everything's gonna be rosy from here. I think a food and energy driven, much bigger inflation might be in the cards, but I sure hope to be proven wrong. So I think in terms of where the bull case is, it turns out both of us are wrong on inflation, and the Fed gets it all under control. And they're free to defend the market, because inflation is not a problem anymore. It just don't see it going that way. But that would be the bull case. Darius, final question. As I think about the market route that we've had a lot of people have described, this is a crash, I can't help but observe, if you look at the technicals, really, it's been a fairly orderly controlled. A very significant sell off more than 20% on the S&P now but it's been fairly orderly. And based on what I know about the psychology and emotion of markets, usually you have to see a panic. And the panic really drives a lot of downside. And eventually you get to a capitulation, where there's a really extreme move at the end. And that's where the bottom is finally in. Now, if I apply that logic, which admittedly, that's everything I've said here is data free, I'm just talking about how the psychology of markets usually works and how I don't think the big fear has really happened yet. It seems like it hasn't even started yet. Like we've only seen the beginning. And the part where fear and emotion comes into the equation maybe hasn't even begun yet. Is there

anything to that? And is there anything that we can do with data to quantify whether or not those fears are justified?

**Darius:** Yeah, absolutely. I completely agree with you. We have not seen capitulation, least broad base capitulation, you can look at slide 95, where we show VIX curve backwardation as measured by front month minus the six month forward VIX future. And you look at the level of backwardation, we sort of got to at the most recent lows, it's nowhere near the sort of peak levels of backwardation we've seen in recent market routes, market routes that, by the way, have been substantially sharper than this in terms of the speed and realize volatility of it all. So we're I mean, we're not even in like knocking on the door of capitulation from that perspective. And so this is why I wanted to put together that's why I did put together for our clients on slides 100 through 104, which look at the five major sort of bear markets that we've seen in the last 100 years, whether it be 1929 to 32 in slide 100. 37 through 42 in 101. 73-74 in 102. 2000 to 2002 in 103, and 2007 to 2009, where each of these markets are a bear market has in common is a acceleration of convexity to the downside towards the later innings of the bear market. And to me, that was very interesting when I studied this. And there's a few key takeaways. One, there is a lot of bear market rallies of significance in these in these bear markets, a very significant bear market rallies where you can get your face completely ripped off as a short seller. If you time shorts very wrong. However, you always get a chance to make money on the short side if you have the staying power to stay in the trade. So that was sort of one of the key takeaways, that negative convexity really accelerating to the downside and the latter innings of the process was another key takeaway. And then the final key takeaway was didn't matter the size of recession, it didn't matter if you know, where the recession and the timing of the bear market. The recession was not the key catalyst. You had the bear markets, particularly whether you look at 37 and 42 or 2000-2002 where the trough of the market was actually after months, if not year after the recession, and others were obviously trough during recession, etc. And obviously the size of these recessions are all very disparate in nature, ranging from slide 103 minus 70 basis points peak to trough in GDP terms, versus minus 600 basis points peak to trough on slide 104. So all you need to know is that this blank can get a lot worse if you're right on a lot of those sort of left tail risk dynamics you talked about Erik.

**Erik:** Well boy, if I look at page 104, this is really striking. Because what this says to me there is for those people who feel like hey look, the bear market already happened, it's bottoming it's time to buy the blood in the streets, because we're already down 20%. Well, look, what's already happened is, in fact a repeat of the bear market of 2007-2008 part hasn't happened yet.

**Darius:** Yeah. Yeah, exactly. We'll leave it at that. Terrifying, we'll leave it at that.

**Erik:** Darius, I can't thank you enough for a terrific interview. But before I let you go, I want to talk a little bit more about what you do at [42 Macro](#) and how our listeners can find out more about it.

**Darius:** Yeah so again appreciate the opportunity Erik. I always love connecting with you and your listeners. You do one of the most valuable services out there free or not free. I've learned a

lot from listening to the program over the years. So I'm always very grateful to contribute. What we do at [42 Macro](#) is pretty simple. We try to help investors contextualize where you are in the cycles that matter most from the perspective of macro, which are the liquidity cycle, the growth cycle, the inflation cycle, and the profit cycle. And ultimately, we tie that back to a systematic, extremely systematic and rigorous, robust quantitative, sort of asset allocation process that we feature on slides 37 through 58. We ultimately tie everything we're talking about into very specific, actionable portfolio construction advice, we consult institutional investors, hedge funds, mutual funds, endowments, corporations, high net worth individuals all the way down to retail traders, even crypto bros, etc. We don't care, everyone needs to understand where we are in the cycles in order to capitalize on changes in policy changes in market dynamics, and ultimately, changes in the P&L in their portfolios.

**Erik:** And this full slide deck that we're looking at you update regularly and send out to your listeners. So all these graphs and charts, the updated versions are available to your listeners. Is that right? How often do they get them? And how are those services offered both to institutional and retail investors?

**Darius:** So there's a couple of things Erik, and I'm glad you brought that up. I think I'm the only idiot in finance that tries to put out 100 to a 150 slide page presentation every month. You know, it's a labor of love. But the reality is, I need to do all this work myself in order to help me set our customers up to best take advantage of financial markets. So the reality is, why not just sell the information because I'm going to do the work anyway. So we put out this presentation every month, obviously, the charts will change. The first 70 slides of the presentation don't change. That's everything. We're refreshed all the models, we refreshed on a daily basis that we write about in our morning note. We have a weekly podcast series for our clients that helps them manage portfolio risk. And ultimately, it all boils down to our views on the cycle which are presented in these monthly presentations. So come check us out at [42 Macro](#). We appreciate the opportunity. The one thing I'll say I think we do differently than a lot of investors, certainly at firms I've worked in the past is, everyone gets the same information from us at the same time. It's I don't care if you're running the \$2 trillion global fixed income fund or you know we have clients that do that and we have clients that are run a couple 1000 bucks a crypto money. They're all getting the same information at the exact same time. And at the end of the day, we want investors. We want everyone who's on Team 42 to succeed so definitely come check us out.

**Erik:** And we'll look forward to getting you back on [MacroVoices](#) in a few months for another update. Patrick Ceresna and I will be back as [MacroVoices](#) continues right after this