



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

## Darius Dale: The Recession is Coming But Not Until the Second Half

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**Erik:** Joining me now is [42Macro](#) founder, Darius Dale. Darius prepared a slide deck to accompany today's interview. I encourage you to download it as we will be making extensive references to it throughout our discussion. Registered users will find the download link in your research roundup email. If you don't have a research roundup email, just go to our homepage at [macrovoices.com](#). Click the red button above Darius' picture that says looking for the downloads.

Darius, I really want to give you credit, we had you as one of our very first guests in 2022 on this program. At the time, the stock market, the S&P was I think just barely below 4800. Everybody was talking about buying the dip and you know, market can't go any lower. You came out in January of 2022 and said, hey I think it could be a crash year for the stock market. Things are not as good as everybody thinks. Clearly, you got the gist of that call right because it was a big down year. And it surprised a lot of people but the question in my mind is, it seems to me Darius, you use the word crash specifically. And I felt like that big, huge bear market that we had never really had a panic moment. So is the crash already happened? Or is it maybe still yet to come?

**Darius:** Oh, well, thanks for having me back on the show Erik, I appreciate the very kind words. I mean, it's I think we did do a good job of helping prepare investors for the difficult bear market that we experienced in 2022. I did an okay job trading it. I think I lost 334 basis points in my capital trading. I should have been up with the crash in January, I definitely should of have made money but it just goes to show you how tough these bear markets are.

**Erik:** Darius, how far into this story are we? Is the bear market over? Have we seen the bottom or is this just the warm up?

**Darius:** A great question, Erik. It's our belief that we are not we have not seen the ultimate lows of this bear market. In terms of how we've characterized it with our clients at 42Macro, you know, bear markets seem particularly those that are associated with recessions. When you go back and study economic history, they tend to come in two phases. There's always the liquidity. The phase one, what we call the Phase One liquidity cycle downturn, that's where the Feds taking away the punchbowl, valuations are getting pressured, etc. There's always a credit cycle. And so we're still waiting the phase two credit cycle portion that we just unfortunately have yet

to see. I prepared a fantastic slide deck for your listeners. And by the way, happy New Year and blessings to the whole MacroVoices community. If we want to jump to slide 66. In that presentation, I can give you an indication of what we mean by the fact that we have yet to see the phase two credit cycle downturn portion priced in on the slide, we show four different measures of financial risks within the Goldman Sachs financial conditions Index in the top panel, investment grade credit spreads in the second panel, high yield credit spreads in the third panel, and then the high beta/low beta ratio amongst S&P 500 companies in the fourth panel.

As you can see, the dotted lines in this chart correspond to the peak and or trough of the particular indicator in each of the last three recessions. The green line is the 2001 recession, the orange line is the 90-91 recession, and the red line is the GFC peak or trough. And the reason they're green, orange, and red is because they are three different styles of recession. One is green because obviously it was the shallowest recession in US economic history. The orange line is the 90-91 recession, kind of energy driven recession. And then lastly obviously, the GFC, one of the deepest recessions we've seen recorded in US economic history. And oh, by the way, the blue line is the mean of each of those dotted lines. And as you can see, financial conditions, investment credit spreads, high yield credit spreads, and then ultimately, the relationship between high beta stocks and low beta stocks are all well shy of the levels that they traditionally have gone to in each of these very different, very disparate recessions. And so ultimately, it's our belief that the credit cycle has yet to be priced in and really, quite frankly, is yet to be seriously entertained by asset markets.

**Erik:** Darius, let's talk about the economy and recession next because when we spoke a year ago, you were one of very few people even talking about a bear market. These days, almost everybody is predicting a recession in the first half of 2023. I have to agree with the but it scares me that so many of them suddenly agree with me, it makes me wonder if I've got it wrong. What do you think?

**Darius:** Great question, Erik. So, it's our belief that we would take the other side of that, if we have sort of three core beliefs here at 42Macro that we've been espousing in our research to our customers. I would say it's number one is that the US economy is more resilient than the average investor realizes and is unlikely to enter recession until the back half of the year at the earliest. Could be as late as Q4 of 23 or Q1 of next year. Number two, as a function of that core belief, the Fed will likely tighten more than what is currently priced into the market and be uncharacteristically reluctant to ease on the back end. And then number three, as a function of number two Fed tightening more and being reluctant to ease when they need to ease, it will likely cause the downturn which wouldn't be, in our opinion, mostly, timed late '23, in the early part of 2024. It'll likely cause that downturn to be worse than otherwise, then consensus expects. There's this kind of immaculately mild recession view, that is very quickly become investor consensus. And it's our belief that the Fed stays at this for longer than they otherwise should be. Then ultimately, it's not going to be mild, it's probably going to be something that looks a little bit more moderate, which makes a lot of sense in the context of the inflation pressures that we're dealing with in the US economy. We can just go to one slide on the inflation side, we continue to see, through the vis-à-vis, underlying measures of inflation on slide

14. Median CPI, to mean CPI, medians PCE inflation, true mean PCE inflation, and then ultimately, Powell's current favorite indicators, you know he's quite promiscuous, by the way.

He has had several favorite indicators throughout the past, it's kind of six to nine months, but his current the current girlfriend right now of course, services PCE ex-shelter, ex-housing. And as you can see on slide 14, all five of these indicators is currently compounding on a three month annualized rate of change basis, higher than the Fed funds rate. So at a bare minimum, we gotta get all these levels below the Fed funds rate in the context of their, what I believe to be a hawkish fed pivot that we observed in December 14 that FOMC. The Fed upgraded the labor market in lieu of inflation is reaction function, which was the hawkish pivot in our belief, because of the labor market is likely to remain more resilient than inflation over the medium term. And then secondarily, there was a lot of cohesion with respect to the dot plot. And a lot of, I guess, kind of sincerity with respect to their economic projections, which in our opinion, accomplishes two things from a reaction function perspective. One, it signals that, the feds will be very reluctant to ease because there's so many sort of, you know, the won't be says many disparate views amongst the committee members, as the going starts to get tough from a labor market perspective. But secondarily, they're being quite serious about their economic forecast, if you jumped to slide 64, in this presentation, got a couple of slides on their forecasts here that I think are very instructive for investors, the Fed is calling for core PCE to end the year of 2023. At 3.5%. We've never seen core PCE decline 120 basis points, which is what it would have to decline by the end of from now from the latest sprint to, to get to that level by the end of next year, over a 13 month timeframe without an actual recession. So that's step one. So the Fed has already implicitly implying that, hey, look, we're going to have to do enough to get inflation down, which ultimately may cause a recession.

But then number two, they're being very explicit, in my opinion, about their unwillingness to ease next year. And this is really vis-à-vis a function of their unemployment forecast, the Fed is calling for use the three the headline unemployment rate to rise to 4.6%. By the end of next year, that has never happened. We've never seen a 90 basis point increase in the unemployment rate over a 13 month timeframe, without a recession. And so this is a Federal Reserve that is forecasting recessionary like conditions in both inflation, and in the labor market. And ultimately, it likely means and I'll shut up and let you exit question after this. If you go to slide 38 in the presentation, ultimately, it means that this is a Federal Reserve that is going to be aggressively pushing back against market expectations for easing monetary conditions all year. Right now, there's three rate hikes priced in getting to terminal Fed funds rate of five and a quarter, if you look at Fed Funds futures, by March of this year, and ultimately, the market is currently pricing the Fed to do it about face and pivot as quickly as the July and ultimately another rate cut in December of this year. So in our opinion, at the bare minimum, those two back half rate cuts are not going to come to fruition, which ultimately means we're going to the Feds going to hike 50 basis points more relative to market implied expectations than what's currently priced in. And ultimately, I'm not so sure just given them the dynamics in the labor market, that they're going to be able to, to not stop it to stop at five, five and a quarter. And maybe in the case of this is a fit that has to get to 550 or 575, ultimately to start to see some real, some real movement and some of these core measures of wages and income.

**Erik:** Darius, I want to go back to the three main points that you made a minute ago because the first one you said is the US economy is probably more resilient than people think. And then the second item that you said is that's going to mean the Fed will tighten more. And that will result eventually in the second half of the year in the recession that everybody's talking about actually happening. But hang on, if I think about investor psychology, I'm having a little bit of trouble reconciling the first two because when you say the economy is not likely to go into recession as soon as people think it is normally at least in the old normal that would be cause for celebration. That means stocks go up because the economy didn't go into recession like people expected. But wait a minute number two was that cause As the Fed to tighten more, that's more of a stock's go down story. So which one wins that tug of war and what should we expect in the first half before we get to the second half when the recession actually happens?

**Darius:** Yeah phenomenal question, I'll sort of unpack the various components of that question. Because I think it's important to kind of lay the groundwork before I ultimately give you the punchline. So just starting with the groundwork, we kind of left off heading into slide 20, where we show, the demand for labor in the US economy through a couple of different metrics. The chart on the left on slide 20 here shows the you know, what we call private sector labor income, which is the productization of the growth rate and payrolls, that we take the mean of the household and establishment surveys to give the nod to the kind of the recessionistia community that continues to anger on the household survey, showing kind of tepid way to tepid employment growth since March of last year. Then obviously, you have hourly earnings ratcheting up on a three month annualized basis, 6.2%. And ultimately, that the combination of that aggressive growth rate in earnings, and some growth in payrolls, when you take the mean of those two surveys, you're talking about private sector labor income on a three month annualized basis in November, growing at 6.6%. You know, that's 50%, higher than the pre-COVID trends. So we the Feds got a lot of hate mail in terms of creating slack in the labor market to do that metric. If you don't believe that metric, because again, that's according 42Macro metric. You know, just made it up, the good econometrician that I am. We actually get data straight from the government in terms of nominal employee compensation via the BEA in the PCE report that we get at the end of every month. And as you can see, on the chart on the right, the first cluster of bars, we show the three month annualized rate of change of nominal employee compensation. Again, these are the November figures accelerated to 6.1%. So, whether you believe 6.6 or 6.1, the reality is neither of those numbers is consistent with the pre-COVID trend. And more importantly, running at about 50% higher than the rate that is consistent with the kind of what the Fed needs to see from a reaction functions perspective to not cause itself to tighten well into 2023 and ultimately more the consensus expectations.

There's a second component of this sort of discussion that I think is important to highlight which is ultimately, the balance sheet side of the equation. So actually, before we get to the balance sheet side equation, I'll just quickly touch on the yield curve and where a lot of this information, a lot of this kind of thought process started to originate for me and for our customers. On slide 24, we show the three month tenure yield curve, which only recently inverted in late October. When you look at slide 25, and you do the math on yield curve inversions vis-à-vis the business

cycle. What we find is that, on a zero to six month forward interval basis, there's a 0% chance of being in recession from the inversion of the yield curve, at least historic going back to the eight cycles that we have of this particular indicator, which I believe to be the best recession indicator that's improving empirically, that's actually the best recession indicator and usually the biggest dominant feature in most recession probability models. Six to twelve months forward, there's only 25% chance of recession. You actually have to go into the 12 to 18 months forward interval, to get to see the percent positive-percent negative ratios flip in a way that is supportive of having a recession as the mode of outcome as your baseline probability. And so starting with that and that understanding, we turn to slide 26 where we just see off the chart strength in the household sector balance sheet in the US economy. This chart has four different panels, the first panel just shows the amount of checkable cash on household balance sheets, and this is checkable cash so cash in checking accounts, and cash in money market funds, not time savings deposits, those are excluded from this calculation. At \$7.9 trillion as of Q3, we're talking about basically a double where they were that number was prior to the beginning of the pandemic. We're now at 5% at the second panel, 5% as a share of total assets in terms of that checkable cash. So consumers feel rich, and they have a lot of cash on the balance sheet. And you go to the third panel, they don't have a lot of debt on their balance sheet. 101 cents on the dollar in terms of household debt divided by a nominal disposable personal income. This is a consumer that has ample capacity to lever up relative to previous cycles. And then lastly, debt service ratio is practically at an all time low. Again, the debt service ratio is the share of your income that you spend on advertising and servicing debt. And so you put those four pictures together, you wind up with the consumer that has a lot of ability to continue powering forward and spending particularly as inflation, decelerates. This is how you're getting the kind of the improvement in real GDP that we've observed in the second half of this year. And it's not just as the household sector Erik. It's the corporate sector as well.

So on slide 28, we show those same four metrics for the corporate sector, and at \$2.3 trillion of cash, we're still higher than levels that we entered the pandemic with just over 4% of total assets. You gotta go back to the 1950s to see corporates have this share of their assets in cash. Ultimately, corporate debt, the debt dynamics are not as pristine as the household sector. We're about 49 cents on the dollar in terms of corporate debt, that's more or less than an all-time high if you exclude the kind of the shock we had and we took GDP down by 20% in the pandemic. But ultimately, debt service is actually quite manageable when you look at the corporate debt service ratio at only 40.2%. Well off, well off levels that have historically coincided with recession. So, that's kind of a long winded way of saying, hey look, the economy is going to remain resilient. And as a function of that resiliency, we go to slide seven, we understand that we're going to still be in this liquidity cycle downturn. This phase one liquidity cycle downturn effectively got extended because of that hawkish Fed pivot that we observed on December 14.

So what I'm showing you this chart is, which has become quite popular across Wall Street, is our net liquidity model here at 42 macro. The blue line in this chart, where we take the Fed's balance sheet, the total assets on the Fed's balance sheet, and then we subtract the Treasury general account balance, and the reverse repo facility balance which we show on slide eight

there, from that from that total assets. And it gives us a more proximate feature of the net liquidity function, the dollar net liquidity function out of the US government. And ultimately, we think the blue line of this chart, it's likely to bounce from the kind of the window dressing we observed in late Q4. But ultimately, we still think the blue line in this chart is headed lower, if only because the economy is resilient, because the Fed is going to be doing more tightening, because we're going to continue to see an increase in the reverse repo facility balance as policy rates continue to rise. And we continue to have this sort of T-bill shortage that is contributing to effectively reverse repo facility rates being higher than the rates investors can get in the treasury market and other markets, commercial paper, etc. So, ultimately, we just think the blue line on the chart on Slide seven is likely to head lower, at least for one or two more quarters, which again, is partially a function of the economy remaining resilient, and all those labor market statistics remaining resilient as well.

**Erik:** Darius you made me curious on page 24, where you talked about the three month 10 year yield curve. You know, usually when I hear people talking about yield curve inversions relative to recession forecast, they usually discuss the 2-year, 10-year curve and what that relationship is, and I don't know, maybe 2s10s just has a much catchier ring to it than 3-month, 10-year and on Wall Street sometimes people go with what sounds cool. Seems like you may have deviated from the culture and actually done your homework on what works best. So tell me a little bit more about why you use 3-month, 10-year instead of w-year, 10-year yield curve charts in order to time recessions.

**Darius:** Yeah, so I think it's a couple of reasons. One, just qualitative and other quantitative. So qualitative, this is the yield curve that I want to say. Dr. Campbell, Harvey over at Research Affiliates and Professor Duke wrote a white paper back in the late 80s I think, when he was doing his dissertation. This was the yield curve that was the predictor of recessions. And so I'm not so sure why Wall Street has deviated from that model. But also...

**Erik:** You got to admit 2s10s sounds a lot cooler than three-month, 10-year...

**Darius:** Oh, for sure. Absolutely!

**Erik:** ...If you are trying to impress somebody, it sounds pretty.

**Darius:** Erik, as a guy who spams customers with jargon all the time, I strive for ways to make my research sound cooler, but ultimately, not at the expense of actually having accurate forecasts and ultimately, good market calls. So we focus on the 3-month, 10-year because ultimately, it's just a more reliable predictor. There's a lot more volatility in yield curve inversions on the on the twos 10s, which makes it a less reliable predictor, it's still a good predictor, it's just not as good as a three month tenure. So understanding that, we're going to anchor our models on this particular indicator.

**Erik:** Let's go back to my prior question and try to get to the bottom line there, you're saying the recession that most people think is happening in the first half doesn't really happen, but the

Fed does tighten more is a result. And that means that the recession does happen in the second half. So I've got the chronology of what you anticipate in terms of recession. Let's translate that to what's the chronology of stock market moves?

**Darius:** Ooh, great question. So, I mean, I think ultimately, you have to attack this from a couple of lenses. Right So, going back to our net liquidity analysis. Ultimately, we think by the end of '11, we're talking about somewhere around 5.5 trillion in liquidity. That number could be, closer to five by the time you get into the summer months, if we're correct on the resiliency of the economy, particularly the labor market, contributing to a resilient and reluctant Fed reaction function as it relates to tightening. In terms of the ultimate lows that we likely are likely to see really trying to determine what that level is. You have to understand it from a couple of lenses. One, the primary lens is understanding the duration of time on the x-axis between the markets pricing in the full brunt of phase one, which is the declining net liquidity function, the hiking of interest rates, and ultimately any dollar strength that results from that, you know, vis-à-vis the other changes in expectations, vis-à-vis the ECB, BoE, etc. The time and the distance between that, and ultimately the phase two credit cycle portion, which the markets will be anticipatory in pricing in ahead of the actual recession that we're likely to see commence in the second half of the year. If there's a decent amount of time between the end of phase one and phase two in the beginning of phase two, then it's very likely markets can bottom in the first part of this year, sometime in Q1 rally into the spring or even into the summer months. And then ultimately puke from there into the back end into the back end of the year.

If, however, the economy is incrementally resilient, because again, I think the problem right now as the labor market being too strong. And as long as the labor market is growing nominal employee compensation at a 50% level higher than its pre-COVID trend. We have a significant problem from a phase one liquidity cycle problem from standpoint. So as long as we are still in that phase one liquidity cycle, as long as that goes on the closer and closer, it's going to get to phase two, which in our opinion, it's going to start sometime in the middle of next year anyway. And so if this is a decent window of time, we could probably rally. Let's say, if we go to slide 39, we did some valuation work to try to get to an ultimate low of this market. I think on slide 39, when you apply a median price to next month earnings ratio to the market, that's probably as low as we're going to get from a phase one standpoint, right around \$3600. I don't really see a fundamental basis for the market to trade significantly lower than that, just purely based on the Phase One liquidity cycle portion.

However, if we start pricing in phase two, kind of commensurate right around the end, or just shortly after the end of the phase one portion of the bear market, then we're going to have a big problem on our hands. This is how you get to on slide 40, \$2,900 if you apply median stock market capitalization multiple to gross domestic income, that's you're talking \$2,900 on the S&P there. \$2,800 on slide 41 if you apply median price-to-sales multiple to the market. And so ultimately, if we again, if phase one and phase two are spaced apart, I can see us trading to \$3,600, rallying to \$4,000-\$4,100 or wherever the 200-day moving average will be at that time, and then ultimately selling off back to \$3,600. If however, the labor market stays too sticky, too hot for too long, then ultimately we're going to be tightening into the beginning of the pricing and

phase two, which we talked about earlier in the discussion. And that's how you get to the market really starting to push to new lows into the \$2,900 to \$2,800 range. So, if that sounds really bearish, I'm trying not to scare your audience. But again, I think it's just prudent to manage risk and understand that these big macro forces, you can try to game them, you can try to trade them, you can add a flows overlay or technical overlay, but at the end of the day, the markets are going to go where they have to go to price these dynamics.

**Erik:** Darius, I just want to clarify a point of terminology there. You said in your last answer, that we could see a bottom in Q1, and then a rally and then a puke after that. When you said a bottom in Q1, do you mean a bottom? Like that's the bottom of the bear market or do you mean a short term bottom then we rally and then you puke to a lower bottom after that?

**Darius:** 100% so great question. So I definitely expect to puke to a lower bottom. So let me let me further clarify that. I think bottom...

**Erik:** So bottom in Q1 wasn't THE bottom, it was a short term low.

**Darius:** Correct, the reason for that is, again, we think the markets are going to be anticipatory around the Fed pivot, or will be perceived to be a Fed pivot, which is them stepping to the sidelines in conjunction with the end of that phase one liquidity cycle downturn. If you go to slide 48, our work has shown that, even in recession, many times that the market tends to bottom right around the inflection in the liquidity cycle. And I do believe that markets are going to treat the ultimate inflection and Fed tightening. You know, them getting to their terminal rate, etc., as an inflection in the liquidity cycle. It won't be from the perspective of helping the economy, but it will be from the perspective of improving market psychology. So there's an opportunity for markets to rally, let me put a couple of headlines, envision the headlines. If we're let's call it March of this year, and the labor market is still running hot, the Fed has already guided to a couple more rate hikes by the middle of this year, and maybe inflation has come down a little bit more. And it's given the Fed confidence that that couple more rate hikes they're guiding to, will likely be it then market to really start to say, hey look, there's still probably a credible chance for a soft landing. And oh, by the way, the world's second largest economy is now doing more stuff and traveling more and at the bare minimum, in terms of adding an incremental kind of support to the global economy so I can easily see the market trading off to 3600 and then trying to rally back to whatever the 200-day moving average or be at that time. The issue is again we have yet to price in the credit cycle feature of this bear Market, which ultimately we believe will commence by the middle of this year. If we rally substantially, as a conjunction of the soft landing fed pivot narrative, then you could you start to pricing in phase two from a higher level than \$3,600. However, if phase one keeps extending itself into the middle of this year, you're going to start to have to price in phase two from a lower market price. And that is the ultimate risks to the market. That's the big left tail risk is that the economy stays too resilient for too long, and the Fed remains too resilient and too reluctant to pivot. And ultimately, that resiliency, reluctance will ultimately cause the market to have to price in again, phase two from the lows of phase one. That's how you get to below 3000 on the S&P.



**Erik:** Darius, so far everything that we've discussed has been in one form or another an aspect of cycles, whether it's an economic cycle, a credit cycle, a recession cycle, and you've been just nailing these calls, especially through last year. But hang on, it seems to me like on top of that, we need to overlay a thematic conversation, which is for decades now, we've been in a globalized, unipolar economy. And now with the Russia Ukraine conflict, it seems like we're moving to a multipolar economy. I for one, don't think that this ends with Russia, Ukraine, I think Russia, Ukraine is a proxy war. That's just the beginning of something much bigger between China, Russia and the United States. If that's right, it seems to me like the overall big picture game has changed of the world that we live in and what's accessible, that used to be a globalized economy is maybe no longer globalized, and you've got a compartmentalization of what happens within different economies around the globe. Do you agree with the high level macro view that the world has changed and if so, what are the implications on the cycles work that we've been talking about?

**Darius:** Oh, great, great question. Probably the best question I've gotten in at least a year. So yeah, so I definitely agree with you and I'll tell you why I agree with you. There's two separate reasons. So one, qualitatively, we can just look around and see that the world is splintering apart from a cooperation standpoint. A friend Cem Karsan over at Kal Volatility Advisors has a good sort of kind of thought process around this, which is, we're kind of in this world of resource scarcity. And the resource scarcity is creating sharp elbows around the dinner table amongst global powers, whether they be central banks, whether they be political leaders in kind of splintering apart from a corporation standpoint, or whether they be cartels like OPEC, etc. So that's causing more inflation. Ultimately, that's not the only driver of what's causing more inflation. If you actually look at slide 68, we might have talked about this in our last interview, which is our secular inflation model. I think we have 16 or 17 features in this model that ultimately designed to project the underlying stationary mean of core inflation. We're using core PCE as the dependent variable in this model. And the model based on the deltas that we've observed decade to date, are likely to be showing or projecting that hey, look on the high end of that estimate range down there at the bottom second last row, we're talking about core PCE that could trend around 3% in this decade. Now, that doesn't sound like a lot of inflation. But if you consider the fact that core PCE trended at 1.6% in the prior decade, we're talking about almost double the amount of inflation on a core basis in this decade.

So that's obviously a significant issue in the context of on slide 69, where we believe that treasuries, bonds, not just treasuries, I mean, it's this is global sovereign debt in general. I mean, don't forget, we had trillions of dollars of negative yielding debt as recently as 16, 17, 18 months ago. So Treasuries are extremely mispriced in a world where 3 to 5% Inflation is the norm because ultimately, it could be closer to five. If you go back to slide 68, where we see that commodities row there, that commodities row could easily be, it's right now it's a 2.8 sigma, delta-adjusted Z-score. You can be talking about a six sigma, if you get some of these forecasts at some of these more aggressive forecasts on commodities, right. So anyway, going back to slide 69, where we show term premia in the treasury market, we're still negative term premia. Our work as shown in recent macro scouting reports. This is our monthly macro scouting report that we present to our clients. You know, recent macro scouting reports, we've shown using

data from a former professor at Yale, Bob Shiller. His data going back to the 1800s, where you look at the relationship between inflation volatility relative to economic volatility, and they're highly correlated, and more importantly, they're highly co-integrated with higher levels of inflation. So net, net, net higher inflation begets higher inflation volatility and higher inflation volatility begets higher volatility in nominal and real economic growth. And ultimately, that's why you saw such a significant expansion, among other things, primary reason why you saw a significant expansion of term premia in the 1960s and 1970s is because of all that volatility. I mean, when you think about what term premia are. Term premia are the physical manifestation of the volatility and economic forecasting. This is why term premia exists because it's hard to forecast asked for extended periods of time. Particularly when economic conditions are changing right before our very eyes.

And so the key in my opinion, the number one most critical takeaway from this entire kind of uptick in inflation, the structural uptick in inflation again is likely to be in terms of core PCE 50% more core PCE inflation this decade than we observed in the prior decade. That's an issue for the Treasury market and it's an issue for global sovereign debt markets broadly. I'll start and just kind of isolate the Treasury market, because I think a lot of these dynamics do extend to pretty much any developed markets sovereign debt market. If you look at slide 70, where we show treasuries, the total amount of marketable Treasury securities held by all these major players, I'll start at the blue line, that's the Fed \$5.5 trillion. US commercial banks at around \$4 trillion in the red line. Foreign central banks, right around \$3.6 trillion in the black line. And then ultimately, the residual of all that is the private sector, whether it be pension funds, hedge funds, households, etc, etc. Obviously, anyone who contributes to the private sector Treasury holdings at rising pretty rapidly at just over \$10 trillion. So effectively, what's happening here, if you go to slide 71, is because governments after sort of structurally fight inflation, you have foreign central bank selling treasuries first in order to defend their currencies. You have the Fed selling treasuries, also need to shrink its balance sheet in conjunction with this monetary tightening regime, a regime that oh likely will be in place for an extended period of time. Don't think about the Fed put, think about the Fed selling calls. And this is something we've talked about with investors, and I think we've talked about on your podcast as far back as the last January. So ultimately, as a function of these major players selling treasuries, the private sector has to basically take down greater and greater share of these marketable debt securities. And it's not just happening in the treasury market, we're seeing the ECB shrink its balance sheet, the Bank of England shrink its balance sheet, PBOC, has shrunk its balance sheet as well, in recent months. And ultimately, the Bank of Japan is really the only major central bank that is still expanding its balance sheet, obviously, as a function of its yield curve control policy.

So the key takeaway for all this from my perspective, is twofold. One, this concept of 60-40 in a world with structurally higher inflation, is probably some version of dead. I don't want to say all the way dead, because again, we're likely to head into recession by the end of this year, and you're going to see rally in bonds. But ultimately, we're not going to see the kind of aggressive rally in bonds that we've historically seen, because I think the market is going to be incrementally smarter about some of these debt sustainability dynamics from a supply and demand perspective. And ultimately, it's going to be kind of playing hot potato on who's willing to

push the 10-year Treasury yield below say, I don't know, 250 to 150 basis points in a recession scenario. That'd be a no brainer if we were in the prior regime. But obviously, going much below that level from a yield perspective, puts the capital, puts the person that is putting their capital work at risk in the context of the recovery and inflation, the recovery in nominal growth, that we're likely to see on the other side of this recession we're forecasting. So that's number one.

And number two, from a sector and style factor, dispersion perspective, we sort of lived in an era if you go to slide 147, where we show the small cap to mega cap ratio. We sort of lived in an era in the past kind of, 10 years or so maybe not quite 10 years. Eight years or so where it's really paid to bet on mega cap safety as a function of their ability to take those low interest rates and manufacture earnings, manufacture pretty much any cash flows, etc., with lower and lower interest rates. And that's been very favorable for mega caps relative to small caps. And more importantly, it's been extremely favorable to slide 148 extremely favorable to growth relative to value. So in our opinion, this kind of changes, this regime shift, the structural regime shift from an investor and from a secular strategic asset allocation perspective is already underway in our opinion as a function of some of these debt sustainability dynamics, which themselves are a function of the sort of changing inflation regime that we're now at. So ultimately, you're betting on value relative to growth. You're betting on small capital to mega caps. You're betting on, if we go to slide 50, you're betting on emerging markets relative to developed markets. It's cyclicals relative defensives. It's all one big carry trade associated with having higher inflation and ultimately interest rates that are just quite frankly sustainably structurally higher than they otherwise would have been in the prior Fed regime.

**Erik:** Darius, I want to come back to slide 68, where you're making this prediction that there could be potentially a 3.2% core PCE for the next decade and you know, I look at your math here and you're considering demographics and velocity of money and these various different considerations. Okay, I get it. But what if I were to pull my crystal ball out and this is not a prediction but a speculation of what might be possible. What if I said that one of the trends of the 2020s might be the weaponization of inflation as a tool of monetary warfare where the conflict grows between United States, Russia, and China and you start to see China and Russia sort of saying, instead of the old regime where it's basically whatever we got that we can sell, we'll take the money, friend or foe, take the dough. We'll sell you, whatever we've got if you want to buy it, they maybe change their strategy and say hmmm, what are the things where we could stop exporting, in order to only give up a little bit of revenue that we could afford to live without, that would really screw our enemy over a little bit and leave them in a situation where they're really hurting. And certainly energy comes into play there. I think that rare earth metals that are used to make the magnets for windmills and so forth, could come into that equation. What if we were to see this multipolar global economy take a direction where inflation is weaponized, and it's being caused intentionally by our trading partners as a tool of warfare? What does that do to your calculations and your outlook overall?

**Darius:** Well, I think that's a phenomenal sort of secondary follow up question. I mean, just kind of going down the rows of this table. You're going to wind up having is obviously a lot less automation, as you have to re-shore. I mean, everyone thinks reshoring is you know, it's kind of

CapEx, R&D and in tech, in order to build plants, you need people to put bricks together, to my knowledge. I'm not sure that robots have been proven able to build plants and things of that nature. So we're going to have less automation as a share of the total economy. In all these geographies as a function of reshoring. Obviously, commodities would be through the roof, landing on Mars, not even the moon, in that scenario. So that's going to be quite positive in terms of the resulting inflation shock from your scenario here. Deglobalization which is already contributing pretty significantly to uptick inflation in this model, will actually accelerate in that instance. I'm not so sure that we're ever going to get our, at least in the US, we're ever going to figure it out with respect to immigration, but generally, in these periods of kind of intense global composition, border walls get raised. It's globalization is how you get immigration. So I'd imagine deglobalization would actually start to create negative aspects of that. And from a household formation standpoint, as well, we can go on and on down this list and ultimately, things like wages will be, kind of a direct function of a lot of these different dynamics, higher inflation, begetting higher wage demands, ultimately, more demand for labor, creating higher wage demands. The redundancy of supply chain just means you got to have more people doing more stuff. And it's just going to be less profitable from the perspective of corporate margins.

And so ultimately, I think there's kind of one big key takeaway here from your question, which is, look this error that we're heading into, both from a geopolitical standpoint but also from a macro, new traditional macro cycle standpoint, favors if you look at slide 52, favors a convergence of these two pretty big lines. This relationship between labor and capital in the US economy. And again it's not just the US economy, I'm highlighting U.S. here. You would see the same dynamics in Europe, you'll see the same dynamics in Japan. This relationship between labor and capital. Labor's the blue line employee compensation as a percent of gross value added of corporate business as the broadest measure of revenues that we have in the economy for the corporate sector. And then corporate profits as a percent GDP. It's just been kind of a one way ticket up for profits and a one way ticket down for labor in this, very aggressive era of deglobalization. And ultimately, the populace of the population is fighting back, they're going to get to continue to have incremental sort of bargaining power with respect to wages, they're going to have more flexibility with respect to who they work for, where they work for them, how they work for them. And ultimately, if you go to slide 19, we have a belief that this post-COVID reduction in labor supply is likely permanent. If you look at the employment-to-population ratio, again, we're focusing on the US economy because ultimately getting the Fed reaction function, right, is a lot more important to our jobs than getting the ECB reaction function right.

But ultimately, a lot of dynamics we could readily observe in the European data etc, etc. So, just to kind of humor me here, just take this and extrapolate this across most of the developed market, most of the G10. Employment population ratio down 130 basis points peak to present from the pre-COVID, high. Same thing down 130 basis points for the labor force participation rate that is being driven primarily by a significant reduction in the labor force because rate for older employees, I think people, just from an anecdotal standpoint, I think one, you're more at risk of dying from COVID. This new disease but more importantly, you probably seen some of your friends die, and you realize that, hey look, you know there's a lot of stuff you want to do in your life before you get out of here. So you probably less apt to go wave at people at Home

Depot or whatever it is that people do. And then lastly, with the female labor force participation rate is pretty, pretty structurally low as well. And I think, anecdotally, I use myself as an example. I spent a decade living in right in middle Manhattan, kind of just being a young single bachelor and no I'm an old married man. And I live in upstate New York now, which is where my wife is from. And in upstate New York, it just doesn't cost nearly as much to live, so we don't need two incomes. And I think a lot of folks who've moved out of cities in the in the pandemic, particularly millennials who are formulating households, they probably are experiencing a lot of similar dynamics.

So from an inflation standpoint, it's kind of coming at us from all angles, which is, we see a lot of people who've left the labor force for a variety of reasons. And oh by the way, to speak to one last reason I don't even have in this chart. But, if you think about the decline in the prime working age, labor force participation rate, which is the 24, 25 to 54 year-olds, their labor force participation rate is still down. I want to say like 80, or 90 basis points from the pre-COVID high. And my hypothesis on why that is the case is just look at the growth of the gig economy. I mean prior to 2020, we didn't have everyone delivering every single thing we did think about. Now we've got Amazon, we got Instacart, we got DoorDash, we got Uber, we got Uber Eats. Pretty much everything you do is being done by somebody who was not employed in the gig economy industry two to three years ago. And so ultimately, it just subtracts the total amount of people who are willing to go work at a, I don't know, MC Marriott, or McDonald's or Amtrak or I don't know, I am just picking up random companies out of that, but this is why costs are going up. Because again, the competition for labor is very intense. And so much of the competition for resources is very intense. Going back to that table on slide 68. So ultimately, it's going to be very hard for us to get out of this inflation problem. Again, going through a recession will temporarily alleviate the inflation problem. But ultimately, we're going to still be stuck with a structurally higher level of wage and realized inflation, and as a function of that and ultimately higher level of economic volatility that we have to deal with as investors.

**Erik:** Final question Darius, we've talked about your outlook for economic cycles, as well as the stock market. Let's talk about commodities including gold, what's your outlook there?

**Darius:** Oh, I think gold is a pretty decent exposure here. Full disclosure, we're still dollar bulls right now. So I don't know that this is the best time to be allocating to gold in size. Just going to say a comment I made on the dollar bull scenario. If you go to slide 72. This is a pretty complicated chart but I think it's worth explaining why we're not so gung ho on gold and yet so gung ho on the euro, etc., at this particular juncture. The markets are already pricing in preposterous amount of tightening by the ECB relative to the Fed. So what I'm showing in this chart on slide 72, is the one year, one month Euro overnight index swap spread versus the ECB deposit rate. And from that value, I'm subtracting that same value in dollar terms minus the Fed funds rate. So effectively, it's a measure of how much the market expects the ECB to tighten or ease relative to the Fed over the next year. And that number is currently 154 basis points. So the market expectedly expects the ECB to hike six times more than they expect the Fed to hike over the next year. And that numbers 202 basis points on the bottom panel for the next two years. So you got the full eight rate hikes by the ECB relative to the Fed. There's almost no

scenario I can imagine in my head economically from a global economic standpoint where the ECB is able to hike six more times in the Fed over in a one year timeframe. Particularly from this starting point, which we're staring down the kind of the pie of the barrel of a global recession by the back end of this year.

So in our opinion, we would be fading this aggressive policy tightening, which by the way is being reflected in the currency market. If you look at slide 142 real quick, the positioning in the Euro is very aggressive. Positioning here I want to say around the plus 21% net length, so that the net long position of plus 21% relative to total open interest, that's 100 percentile reading on a one-year basis, and an 86 percentile reading on an all time basis. And so ultimately, the market is very much kind of long Euro. It's also quite long gold, not as aggressive as the euro, but it's quite long gold here at plus 26%. So it's our belief that it's not likely that we have seen kind of the end of the dollar rally. I don't know that we probably going back to the highs that we observed in kind of late October, early November. But ultimately, I do believe we'll probably get a better buying spot buying opportunity in gold and maybe for currencies vis-à-vis the dollar as a function of this kind of phase extension to the Phase One liquidity cycle downturn, which oh, by the way, if you go back to slide 73, if you look at Taylor rule spreads, the market seems to be kind of running away with this, this narrative that the ECB is going to be significantly more hawkish than the Fed. And ultimately, we're seeing that resulting in positioning. We're seeing that resulting in positioning and gold, etc., things that will be correlated to a Euro strength. If you look at the Taylor rule spread. So we're taking the 12-month T-bill yield or 12-month yield in each of these localities on US, Germany, UK, and Japan, and subtracting what the table estimate for the policy rate should be in that locality. And as you can see, the US is still significantly more tight relative to the lackadaisical policy rather if you will, of the ECB and the Bank of England.

I guess the market is effectively saying hey look that's got to compress significantly. But as you get again, going back to slide 72, it's already compressed in market expectations terms. So it's unclear to me how it's going to significantly compress from here in terms of supporting the euro and supporting things that will be positively correlated to the euro. So sorry, that's an extremely long winded macro economists answer to your very simple question on do we like gold. I think from medium to longer term perspective, no doubt, it's going to be very difficult for real interest rates to rise considerably from here. And ultimately, we do believe gold has significant value as a store of value in this kind of breaking apart the splintering of this kind of global economic world that we've kind of lived in for the last kind of 30 to 40 years. But ultimately, I still think, maybe the better time to allocate to that is when we personally feel a lot more comfortable allocating to bonds and ultimately, kind of betting on a significant decline in real interest rates, which ultimately I believe is likely to be more associated with the phase 2 credit cycle downturn, rather than what we're currently experiencing, which is still in the phase one liquidity cycle downturn. So we will be buying gold in size at some point this year, I just don't think it's the right time to do it now.

**Erik:** Darius, I can't thank you enough for a terrific interview and particularly for a terrific slide deck. I think you get the record at 150 pages of really data rich graphs and charts, you do a

terrific job. And I know that you update this slide deck periodically for the benefit of your subscribers, please tell our listeners a little bit more about [42Macro](#), what you do there, what it takes to get the subscription to get updates of this chart, and what else is included in that subscription.

**Darius:** Yeah thanks again Erik, I appreciate you for having me on. So this is our what we call our macro scouting report. It's one of our key products. So we publish a deck like this every month at the beginning of every month. It's not this particular same deck. It's whatever we think is relevant to helping investors contextualize and ultimately profit from macrocycle risks. And we're very explicit about the bets we make from a portfolio and asset allocation standpoint. If you go to slide five in this deck, we just have a stylized example of our portfolio construction, which by the way, in the raging cross asset bear market where the S&P was down 20, NASDAQ down 33, TLT down 33, Bitcoin, Ethereum down 60 to 70%. This portfolio construction process here on slide five, only lost 334 basis points. Again, I use this to trade my entire liquid net worth. And so I'm very proud of that. But more importantly, I'm very proud of the work that we put in on a daily, weekly monthly basis to help investors stay abreast of these macro cycles. So, again, thanks for the opportunity to present and as always, looking forward to reconciling this in a little bit.

**Erik:** We look forward to getting you back for an update in a few months. Patrick Ceresna, Nick Galarnyk, and I will be back as [MacroVoices](#) continues right here at [macrovoices.com](http://macrovoices.com)