Juliette Declercq: The bear argument for the USD

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Erik: Joining me now is JDI Research founder, Juliette Declercq. Juliette prepared a fantastic chart book that you're not going to want to miss. So I strongly encourage you to download it now, as we'll be referring to it throughout the interview.

Registered users will find the download link in your Research Roundup email. If you're not yet registered, just go to macrovoices.com and look for the red button labeled Looking for the Downloads above Juliette's picture.

Juliette, thanks so much for coming back and joining us again on MacroVoices.

Juliette: Well, Erik and Patrick, thank you very much for having me on such a high-caliber podcast. Now, Erik, I know that all you want to know is where the dollar is going. And I'm afraid 2017 was rather straightforward and 2019 may be straightforward as well, but 2018 is a transition year and a time to be more tactical.

I've not found the magic recipe yet this year. So this interview will focus on my thought process for you to extrapolate your own tactical game plan.

I have put together a chart pack of exclusive macro pictures. Some from my CIO-tailored reports and some created just for you guys. Please make sure you download it, because I will refer to it through the whole interview. And, also, you know that my motto at JDI is "better a good chart than a 10-page waffle."

Erik: Well, I have really been looking forward to this interview. I've learned from past experience to be very careful about fading your views on the US dollar, because your track record is so impeccable. But, honestly, Juliette, I'm at a loss to understand why you're still so bearish on the dollar.

We've had so many good arguments from other guests saying, look, Treasury yields are headed up. And, just on Tuesday morning, as we're speaking, we're looking at the 10-year Treasury in the United States flirting with that 3.05% key resistance level that everybody's been watching.

And other guests that we've had on the program have been saying, look at the differentials versus the German bund. It's only getting better, and that's got to help the US dollar.

Meanwhile, we've seen a breakout in the US dollar index over the last couple of weeks out of a consolidation pattern that had lasted for a couple of months. And you know the old saying: "The longer the base the higher in space."

So, Juliette, it seems to me that there's a lot of reason to be bullish on the dollar. And, of course, with record short positioning in dollar index futures before this move began, it seems like a perfect setup for a massive short squeeze.

But you told me off the air that you have been viewing this as a countertrend rally and just an opportunity to short the dollar from a higher entry level when this move to the upside runs out of steam.

So I know you have a plan to help our listeners see what I've been missing. Which, of course, is the bearish case on the US dollar. So why don't we start with your last report. Tell us why it was titled "Toto I've a Feeling We're Not in Kansas Anymore." And, from there, let's dive into your chart deck.

Juliette: Well, when I was writing the report, it reminded me of this quote from the Wizard of Oz when Judy Garland lands somewhere and knows it's no longer feeling comfortable but can't quite describe it precisely yet. So, basically, a phase of transition.

I see growing signs that we've transitioned from late mid-cycle to early late-cycle. And it's happened because of Trump's tax reform, paradoxically. Effectively, Trump's taken the burden of proof away from the economy.

The fact that a less than one percent fiscal impulse can be expected this year, and maybe a bit more than one percent next year, means that the belief that "the US economy is strong" has become incredibly entrenched. And we'll see later, but I don't really believe it's the case.

Nonetheless, a shift has happened at the Fed whereby scepticism about reflation has given way to inflation fear. And whether inflation actually materializes or not matters less than the fact that it is actually feared. Which means that higher-term premium.

The first chart that I would like to point out is Chart 1 that shows 10-year risk neutral yields have stalled. Just to remind your listeners, the risk neutral yield is a mathematical bootstrap of the Fed's funds over the next 10 years. Whereas the 10 premium should be thought about as a measure of fear around that central case scenario.

You can see at the top, the risk neutral yield has basically stalled. And the last breakout – and I didn't capture a two-days breakout – but, basically, the last breakout is mostly driven by the 10 premium.

The bottom line is that the Fed's reaction function has become asymmetrical despite a recent insistence in the FOMC statements on symmetry.

And what I mean by that is we could have (a) equities go up. And yields have to converge to the dot plot with a potential premium for increased concerns about financial stability – and I'll come back on that later. And that increases nominal yields and strengthens the dollar, particularly versus the most vulnerable EMs that fund in dollars. And we have continued to see the effect of that on Argentina and Turkey.

Or (b) equities go down. But the Fed's line in the sand on equity weakness is now a long way down the beach, effectively because of Trump's put on the US economy. The result is that real yields are moving higher and the dollar is strengthening more broadly, including versus other reserve currencies like euro, yen, and gold.

The bottom line I would like to point out on Chart 2 and what will really matter for the rest of this interview is that we've entered a vicious circle where financial conditions will necessarily trend lower. And you can see that by the divergence between the Financial Conditions Index in blue and the SPX in green.

Why it matters for the dollar is that, in my view, the dollar higher on higher real yields is not sustainable because it sharply tightens financial conditions.

Erik: Okay, that divergence is an excellent point. Are there other reasons to think that there's been a regime shift?

Juliette: Yes, actually. I have a few more observations to my subject. And the charts I'll be talking about are key to determining how fast the late cycle period will last. I said that we've entered early late-cycle. But that can be obviously a time lag of 12 to 18 months until we actually see a rollover. And, given your concern is the dollar, I'll explain how it also determines the dollar outlook.

One way to look at equity valuation consistently across business cycles is to use the equity risk premium. Essentially, it considers earning yields and adjusts for real bond yields. So the effect is that it removes the R* from the valuation equation.

And I think this is key in the cycle, given the collapse in literal yields and its magnifying effect on future cash flow valuation. The equity risk premium basically allows for a more accurate analysis across cycles. And it's been the one metric that allowed us to stay long equities all the way from January.

The point about the equity risk premium is that it is supposed to compress as monetary accommodation is removed. And the reason it should be compressing is that monetary accommodation should be removed in line with the more resilient macro outlook.

Well, you can see on Chart 3 that it is no longer the case. The correlation is normally strong and consistent across cycles and persistent even on short timeframes. But you can see that, since February, there is a meaningful divergence.

Which suggests that the expected level of Fed accommodation, which I chart here in green – and I basically use five-year real yields minus R* for that – and you can see that it's no longer in line with growth expectations as you would be expressing through SPX equity risk premium. And this is really interesting, because it's a dynamic that we can observe at the end of the last two cycles.

If you take Chart 4, you can see that in 2000 we had an inflation scare. And, also, the Fed was quite willing to burst the equity bubble then as well. And that basically caused the Fed to hike 50 basis points even as equity markets were already sensing a growth slowdown and the economy basically rolled over in less than six months after that.

A similar thing happened in 2007 where the divergence between equity risk premium and accommodation also signalled the end of the cycle. So you can see in July of 2007, basically, the SPX risk premium started to collapse when accommodation was still towards the highs.

Erik: Okay, that's a really excellent point. But, just to play devil's advocate, it seems to me, if we go back to Chart 3 looking at the equity premium, one could argue that the equity risk premium is really just catching up to higher real yields.

So is this temporary? Is this a game changer? What are we really seeing here?

Juliette: That's completely true. The issue here is that equity's main driver in the recent two weeks has been slightly disappointing inflation rates that sort of reignited the Goldilocks environment. We also had, obviously, stellar earnings and prospects of upcoming buybacks.

But the interesting thing, if you go back to Chart 3, is that Triple B credit spreads did not get the memo at all. And they've actually continued to widen. That also highlights late-cycle dynamics, which are temporarily hidden in equities, in my view.

Erik: Okay, but why is that?

Juliette: That's a great question. I think the easiest way to answer this is that credit is priced on a Beta, which reflects the fundamental health of the business rather than EPS growth for equities. Well, the tax reform or any financing tricks don't affect a Beta. So credit spreads at this point of the cycle, in my opinion, are a better gauge of the state of the economy.

I have also attached a few other charts that will be key to pinpointing a more dangerous turn for the business cycle and which also signal greater credit concerns. And they all are coming from data – that really is in the last 10 days.

So, firstly, there has been the NACM Credit Manager Survey. You can see on Chart 6 we have had a substantial dip. Which is likely something that would be expected until such a big move in 5-year real yields. So in orange on Chart 6 you can see the Credit Manager Index has started to roll over.

Secondly, and that's a survey that we got last week, the Fed Senior Loan Officer Survey shows also a turn in consumer credit standards. It's been stable for corporates, but there has been quite a tightening in standards, especially on credit card loans. So that's on Chart 7 where you can also see that consumer demand for loans, continued to trend lower.

And the last chart I wanted to point out – Obviously, you've all noticed that volatility has picked up this year on the back of deteriorating growth/inflation combo. The combo, basically, has been tilting more and more towards stagnation than Goldilocks.

Goldilocks, just to remind everyone, is market conditions that prevailed until last year with what I used to call a growth purgatory. So that's maybe our current but stable growth. And low inflation keeping the Fed at bay.

All those charts – and I have a lot more but I didn't want to spend too much time on that – are the charts that I want to keep on the radar to analyze the end-of-the-cycle dynamic. And that will help us with trading all asset classes, but also obviously the dollar.

Erik: Okay, let's go back to the US dollar view, because I think we're looking at cycle dynamics, the overall economic cycle. Let's tie that back in. How does that fit with your dollar view?

Juliette: Erik, as I mentioned in my intro, this year's dollar is not as straightforward as last year, for the simple reasons that the late-cycle trading conditions become, by design, very tactical. Also, this is something I did touch base about in the last interview.

There isn't *one* dollar. There is the dollar versus other reserve currencies. And that includes the yen, the euro, gold, and yuan. And dollar versus commodities and emerging markets. And, in fact, you could now argue that there are such large discrepancies between fundamentals of different emerging markets that it's becoming more and more difficult to look at emerging markets as a whole.

So the reserve currencies tend to be driven more by real interest rate differential, which would reflect real growth potential differential. And I expect the cycle to end with another shoot in real yields instead of another shoot in equities. And that's the reason I decided to exit long Euro, yen, and gold versus dollar at the end of April.

The EM [emerging market] and commodity currencies are more driven by the absolute dollar yield level as emerging markets are mostly funded in dollars, especially privately. This is their main weakness when the business cycle is out of synch with the US cycle, as financial conditions there tighten out of line with the inner strengths of the domestic economies.

So, in my framework, there are two main drivers. One, specific to the cycle in the US – largescale fiscal stimuli need to be financed. This basically leads to higher rates if the Fed counters the fiscal loosening with monetary tightening – or a much weaker dollar if the Fed chooses to overlook a temporary overheating.

The growth profile also needs to be taken into account, as large fiscal stimuli can also be financed with higher growth and a strong Keynes multiplier. But we'll see later that this is unlikely to be the case.

The second driver in my framework is real yield differential with the rest of the world. And the reason we appear to have been correlated there in 2017 is that we were correcting a 2015-1016 overshoot. You can see that very clearly on Chart 9.

So my point is that real interest rate differentials do matter. But the first dollar downleg only corrected an overshoot. So in a benign global growth environment like last year, higher US real yields were accompanied by brighter growth prospects.

The fact that the end of the Fed hiking cycle would be followed by a monetary normalization in the rest of the world, and what we call in macro jargon monetary convergence, allowed the dollar to stay weak even as rates were going up. And it gave the illusion that the US dollar was diverging from an historically reliable driver – real yield differential with the rest of the world. But I don't think it was the case.

Erik: Well, I can tell you for certain that I've been very confused by that apparent disconnect between real yield and the rest of the world. So it's certainly succeeding at confusing me, if nothing else. I think a lot of our listeners have been confused by this.

So can you go through in detail what happened this year?

Juliette: There's been two game changers this year in Q2. Firstly, increased inflation fear. So, in April, a surge in commodity prices. Obviously oil as well, due to trade tensions and geopolitical worries. And that was literally inflation that I would call exogenous, because it came atop outside concerns rather than increased global demand.

So that added to concerns that the US, which is the most advanced economy in the global cycle, may be judged by the Fed as closer to overheating. We actually need to add to that concern from the Fed a new sort of third mandate relating to financial stability. Literally, the Feds told us that they don't want financial conditions to loosen more.

So those two new drivers are focused on the United States, where equity valuation is most concerning, and where inflation is now on target.

There's just one thing that I would like to caveat here is that if you compare US inflation with European inflation like-for-like, which you would need to take out shelter out of US inflation, out of CPI Index.

The difference between European and US inflation is only like 0.4%. And it's literally almost perfectly explained by the relative currency performance over the past two years. So, if the dollar does well Europe gets more inflation. And the reverse is true as well. So that's obviously a big caveat.

But the point is the Fed thinks that they are on target.

The second game changer is that US real yields continue to rally, but in a less supportive growth environment. And this is something that I already highlighted in your second question by the divergence between real yields and the equity risk premiums, and also credit spreads, and by the breakdown in the correlation, basically.

Now you will ask, what is the issue with real yields? Why does it matter whether it rallies when stocks go up or whether it rallies in a supportive growth environment?

It is really crucial. Because in a supportive growth environment, the end game – and let's say the end game here is when the Fed is done hiking – is monetary policy normalization for the rest of the world, if we are in a supportive growth environment. Whereas if we are in unsupportive growth environment, the end game is basically recession, which cancels any chance of monetary convergence.

So if we have real yields going up, growth going up, then we just can be focused on the fact that ECB and BOJ are going to be the next ones to hike rates. But if the end game is recession, then there is nothing to look for what to fund for the BOJ and the ECB. And I think that's really been what's been driving markets for the last four weeks.

And it's probably been the greatest challenge to the dollar bearish narrative this year. Especially given, as you pointed out, increased positioning.

Erik: Juliette, that begs a question in my mind. You've told us already that you covered your short positions to get out of the way of a countertrend rally. So you must be looking to get back into a dollar short by going long – well I guess that's part of the question.

Is it still going to be euro, gold, and yen that you go long against the dollar? And when do you do that? Is there a level you're looking at? Is there some event you're waiting for? What tells you it's time to short the dollar? And which assets do you use – which pairs do you use against the dollar when that time comes?

Juliette: It's typical of you to give such a straightforward question, so I'll cover it in the next few questions I think. There are many crosscurrents this year. And the straight answer is that you will have to be nimble in 2019.

Let me try and explain what I'm looking at and the framework I use at JDI Research to gauge the most likely direction and find that attractive risk/reward trades even in a Trumpian environment.

The first thing to bear in mind is that monetary convergence is not in any way cancelled. It's just put on ice until a firm top in US real yields is in place. And, arguable, given the very high hurdle to a Fed relent, I estimate that real yields may climb a further 25 basis points until we see more visible signs of macro stress emerge.

The problem the Fed has at the moment is that it's sort of targeting two different mutual rates for the two-speed US economy. So a higher one is needed to keep financial conditions in check on Wall Street. But a lower one is probably needed to balance the real economy, e.g. final demand.

And at the moment, the Fed looks like it's now converging to the higher one. And this will, in my mind, soon be visible through lower real final demand in the US. At that point, the Fed will be forced to pull its foot off the brake and US real yield versus the rest of the world will converge again, but negatively converge. Meaning US real yields lower.

Let us not forget that the Fed is the only DM [developed market] central bank with any easing ammunition. Once the global slowdown becomes more severe and when the US credit risk rises meaningfully, I think we can expect German and Japanese savings that are currently parked in the US – by the way, there is a lack of aggregate savings – to be repatriated very quickly.

That will be the second leg of my longstanding dollar short recommendation. And one that I will ensure I catch using a framework that I've developed over the last 20 years.

To summarize: Stable global growth and we see a weakened dollar broadly. Plunging global growth and we see a weakened dollar versus reserve currencies – gold, euro, yen, and probably China as well.

The issue here is that we are in a transition phase. And if you take Chart 10, which was actually last dated on Monday with the OECD leading indicators, you will see that using the Diffusion Index as a leading indicator for global growth – the leading indicator is the Diffusion Index in blue – and you can see that it's leading the actual headline by six to 12 months.

So I can say with a degree of confidence that 2019 will not be a supportive growth environment. But, unfortunately, like 2018, it is a kind of in-between where you sort of know where you're going but you don't know at what speed – hence the choppiness.

This will most likely mean a top in global tightening and in aggregate monetary convergence at some point towards either the second end of this year or next year. And a dollar selloff in dollar yen towards 98 in my view, and 145 in euro.

Erik: Juliette, let's focus on the short-term time horizon. Based on this whole framework that you've just described, does that lead you to some specific recommendations in the immediate timeframe?

Juliette: On the short-term horizon, we certainly granted some respite on the inflation side. So what did we have? You can see on Chart 11 we had lower than expected earnings. So I think – and you can see the three months running annualized has actually really come off quite sharply.

The same thing is true for CPI where we are on target because of very strong positive base effect.

But if you are actually looking at the last number, it was really weak. And we also strongly came down on this three months running core CPI annualized. So we're just above 1%, at 1.2%, when I think three months ago we were running above 3% on a three-months basis.

And the same thing has been true for import prices as well, which are not really shooting up despite the fact that the weaker dollar over the past two years should now really be feeding through.

Also I have been warning about a global slowdown since January. I also now believe that it's sort of temporarily priced in. And especially in one asset class that's in a very strong outflow this year, especially among hedge funds, and that's emerging markets.

I think we could be soon entering the eye of the storm as far as emerging markets are concerned. And the *quid pro quo* for receding inflation scare probabilities is that there is also less chance of a Fed mistake.

So that's the reason why I think we could be entering the eye of the storm. Simply because there will be no forced acceleration in the tightening cycle and a more supportive risk environment, with growth in China potentially bottoming.

But it reignites hope that monetary convergence can eventually happen. And, also, real yield will inevitably stay supportive in the US. The more supported risk environment means that the dollar should stall against better-quality emerging markets.

So I have recommended short dollars/ZAR (US Dollar/South African Rand) with a stop at May highs and also long Aussie versus short yen to reflect, on one side, a more stable growth outlook than what markets are pricing in – I think we've been a little bit too fast to start looking for global growth collapse. And, on the other side, higher real yields in the US will mean that the dollar/yen stays supported.

So long Aussie versus yen.

Erik: Okay, Juliette, so you're saying go long the South African rand (ZAR) against the dollar and also long the Australian dollar against the Japanese yen. Why is that?

Juliette: So there's a few reasons. The first one you will see on Chart 12, that China CPI was actually quite soft recently. And that means that there is scope for a monetary boost. That is, should trade tensions persist and cut into growth. And, in fact, it's already starting to happen. And we have seen Triple R being cut and various fiscal easing.

Secondly, you can see the blue line on Chart 12, that liquidity impulse in China is actually quite far from falling off a cliff. I think there were some fears that after the last Congress, the Chinese authority would be reining in credit much more aggressively, and it's not been the case at all.

And the last credit numbers we received were from last week. So it's been trending lower, but no collapse. And, literally, the lower inflation impulse suggests that a continued baby-step-like deleveraging is possible.

In fact, to come back to Monday's OECD leading indicators, you will actually see on Chart 13 in orange that the OECD leading indicator for China is showing tentative signs of a bottom in growth momentum. And, obviously, the Chinese cycle is leading the Australian cycle. Hence, my recommendation for tactical long Aussie and where idiosyncratic risks of housing bust have started to get priced in, together with slower Chinese imports.

So I think there is a window of opportunity for Aussie/yen to get some relief here. And most like 2–3% higher.

So, first, Chinese monetary and fiscal authorities are given increased room to ease as inflation appears under control.

And, second, there are tentative signs of stabilization in activity momentum.

And, thirdly – and that's a very important point I want to make – is that a lot of investors look at emerging markets as an asset class. And it's been the case probably for the last 20 years, with most emerging markets being commodity exporters dancing to the tune of China.

I've created an index of OECD leading indicators for Brazil, India, Russia, and South Africa, which would basically be emerging markets ex Asia. And you can see on Chart 14 here that growth momentum in these countries – Brazil, India, Russia, and South Africa – has completely decoupled from China.

So the whole "China is going to be having a growth slowdown and it will affect emerging markets" is not really true anymore. You can see on Chart 14 that the Chinese cycle used to lead all emerging markets. But for the last two years, that correlation has completely broken down.

So Russia maybe held off by US sanctions, India may be held off by oil prices, and probably Brazil will be held off by local politics. But South Africa is very interesting. It is still gaining momentum in terms of growth. And its current account deficit has dramatically improved since 2014 by about 4%.

So, in short, EM ex Asia has to endure higher US yields, obviously, but aggregate financing needs have largely decreased. The EM ex Asia growth backdrop has stayed very solid. And this means that higher US yields are not totally out of whack with the EM growth environment and, literally, their capacity to repay.

So one thing to bear in mind here is there are very large disparities of macro fundamentals today in EM. And that some EM might be worth looking at, at the moment after this large selloff. That's where I would like to start to re-enter short dollar.

If you look on Chart 15, just to add up on that particular point, you can see that the taper tantrum – so starting from like 2012 going into 2013 – the backdrop in the taper tantrum was one of very strong US growth versus the rest of EM and rising real yield differentials.

So there's two things that we need to look at for emerging markets: Where is the growth potential versus US? And where are real yields versus US? Because if you have way too high yields compared to your growth potential, that's what we see when financial conditions tighten way too much in the country and that's how you end up with the large selloff that we've seen in the taper tantrum.

But, in my mind, the difference this time is that the Big Four growth backdrop is actually quite solid, especially given my opinion that the strong US backdrop is only temporary.

So I will incompletely disagree with, I think it was (Jay) Powell, saying that emerging markets should be able to deal with higher US rates. It's obviously not true for all of them. For Argentina, it's going to be tough. And, basically, Turkey is a basket case. It's also going to be a nightmare. But some EM are going to be quite resilient.

Erik: Okay, Juliette. I think your US dollar outlook is much clearer to me now. I have a question, though. Would surprising strength in the US economy be a threat to your outlook?

Juliette: Let's go to Chart 16 for that, which is titled "The US Consumer Remains Jubilant," as you can see from the Conference Board Consumer Confidence, which is shooting new highs. But it doesn't have much dollars in its pockets, as you can see from the blue line which is showing real aggregate income growth year-on-year.

From that chart you can see that as happy as you can be about, and as confident as you can be about the economy, the fact is that you can only spend what's being put in your pocket.

That's really what I wanted to say, because one thing to remember about the US is that 70% of the economy is driven by consumption. And the consumer is already leveraged. And that means that growth will not deviate meaningfully from real income gains.

There is no labor slack anymore, which means that the economy can only accelerate on higher wages – which in turn will squeeze profit margins and mean and higher yields.

There is no real path, in my mind, to sustainable growth in the US, due to late-cycle dynamics. And no sustainable path, therefore, to growth divergence with EM either. And that makes me confident that an EM rally is tradable where the growth backdrop is still relatively solid and where fundamental imbalances have receded. E.g., South Africa as my short term pick.

The last chart that I would like to show you is Chart 17. In grey is the credit impulse. So it's showing you when growth is basically boosted by credit. And there has been a huge boost in credit since Q3 2017. This has not stopped yet, so I cannot say for sure that US growth momentum has peaked before that peaks as well.

But this chart will really help me time the next downturn, because once the credit impulse peaks, the loss of growth momentum in the US will become more frightening.

Erik: Well, Juliette, I can't thank you enough for a fantastic interview. Finally, your view on the dollar is clear to me. It hasn't been until now. And it helps me quite a bit. I know our listeners have appreciated it.

I want to talk for a minute about your institutional advisory service. Historically, you have been an institutional advisor. Your services are beyond the reach of at least the average retail investor.

But we've actually been surprised. Quite a few private investors – high net worth individuals and family offices and so forth – have signed up for your service as a result of learning about you on MacroVoices. We're delighted to help you find that business. And I particularly appreciate that you've been good enough to cater the pricing to the type of investor that you're dealing with.

So, please give us a sense of what's on offer from your service, and where people can find out more about it. And I know Patrick Ceresna, our producer, has become a very aggressive negotiator for MacroVoices discounts. Are you offering anything for our listeners in conjunction with this interview?

Juliette: Firstly, I want to really thank you for inviting me once again, because your show is a treat for everyone every week and your content is invaluable. I also have met a lot of your subscribers over the past year (and I want to thank you all). Via Twitter, email, you all always have astute questions and comments that challenge my beliefs and on which I can bounce with new ideas.

So, really, thanks for taking the time to read, listen, and ponder upon what I have to say. And thanks, Erik, for introducing me to them.

That's something I literally only do for MacroVoices listeners, and I will do it this time, is to offer a very substantial discount for any one-year subscription agreed by the end of this month.

To benefit from this offer you can just email me directly: juliette.declercq@jdiresearch.com. Or you can just reach me through my website jdiresearch.com. All my details are going to be at the bottom of the chart pack as well. So if you are interested, just get in touch. In many cases, I'll be happy to reply to any questions anyone may have – anything that is not completely clear after this long presentation. Email me, Tweet me, I'll be there.

My Twitter handle is @julietteJDI. JDI for Juliette Declerq Independent.

Erik: Well, Juliette, I can't thank you enough. And something I'd like to recommend to our listeners: Spend the time to really mull over Juliette's charts. There is way more content and value in this chart book than we even had time to dive into. I'm so impressed with your charts, Juliette. It's really fantastic.

In any case, in the interest of time we need to leave it there. Patrick Ceresna and I will be back as macrovoices continues, right here at macrovoices.com.