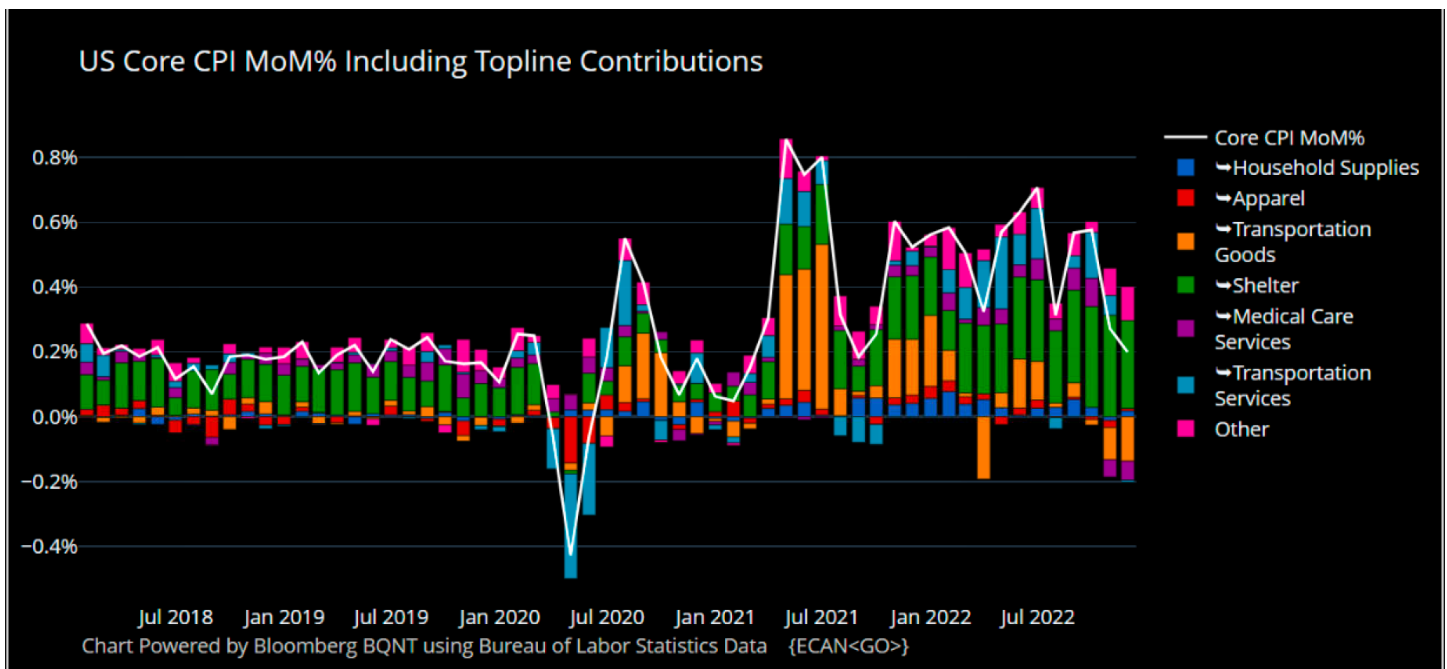


A Market Note: Cyclical Inflation Primer...

Here are the highlights from yesterday's inflation print via BBG:

- **Inflation came in a good bit lower than expected**, cementing the peak earlier this year and helping Federal Reserve officials as they start to slow increases.
- **Headline CPI rose 7.1%** in November from the prior year and 0.1% from the previous month. Inflation minus food and energy was up 6% year-over-year and 0.2% from October, the smallest monthly advance in more than a year.
- **Shelter costs** continued to be a huge contributor to inflation and offset broad declines in energy. Food prices also advanced again, while used cars and trucks declined and were a negative contributor to annual inflation growth for the first time in more than two years.



People make a lot more hoopla over these monthly reports than they're worth. The granular monthly data inflation is extremely noisy. Its signal value is low.

What is more important to track is the narrative response versus the market's reactions to these prints. And most importantly, have a good understanding of the broader inflationary

environment; the conditions of causation that *actually* drive price trends and volatility over time.

We'll talk about both today, but we'll start with the former.

Here's a few of the pull quotes from Bloomberg's TLIV coverage of the CPI print, which is a good source of what the consensus take on an event is.

"Investors didn't think inflation was going to come down as fast as economists were forecasting, but now they are coming down even faster, Morgan Stanley strategist Matthew Hornbach tells Bloomberg TV:

'This is a big deal for macro markets. It's a big deal for the outlook in 2023.'

Paul Ashworth at Capital Economics writes:

"Stick a fork in it, **inflation is done.**"

"The 0.2% m/m increase in core consumer prices in November provides strong support to our long-held view that mounting disinflation will soon persuade the Fed to move to the sideline after one 25 basis-point hike in early February."

Seema Shah, the chief global strategist at Principal Asset Management, says:

"It also raises hopes that **the inflation surge may actually be tamed** within the next 12 months. Certainly, with important components such as shelter inflation and core goods inflation moving lower, it is reasonable to expect inflation to continue falling over coming months."

Morgan Stanley's Ellen Zentner:

"With the downtrend in inflation becoming entrenched, the FOMC can set its sights squarely on the labor market. In our forecasts, a slowdown in jobs growth over the coming months sets the stage for, first, a further step down to a 25 basis-point increase in the February meeting. As jobs growth trends towards the 100,000 mark, **we expect**

no further interest rate hikes at the March FOMC, leaving the peak fed funds rate at 4.625%.”

Phillip Neuhart of First Citizens Bank Wealth Management:

“For the second consecutive month, inflation came in below expectations. This is good news for markets and the Federal Reserve. Should this downtrend persist, it allows the Fed to **slow the pace of interest rate hikes and eventually pause in the first half of next year.**”

Inflation is being *tamed*. It's *done*. The *downtrend... is becoming entrenched*. A 25bps Fed hike in February and *then a pause* is the clear consensus taking shape amongst those who comment on markets all too much.

Never mind, many of these same strategists were calling for a global food shortage and crippling European energy crisis just a few short months ago.

The [Narrative Pendulum](#) keeps on swinging...

It oscillates back and forth much faster near the end of a regime as volatility in the transitioning underlying data picks up.

I don't personally care to predict whether monthly inflation data will come in at 0.3% versus 0.2%. I'm pretty sure I'll never have an edge there, so I don't want to play that game (though we are backtesting our FOMC vol selling strategy for CPI events, and we'll share our findings soon).

It behooves us to pull back and look at the bigger picture. Dig into what the conditions of causation are that *really* matter for the price cycle.

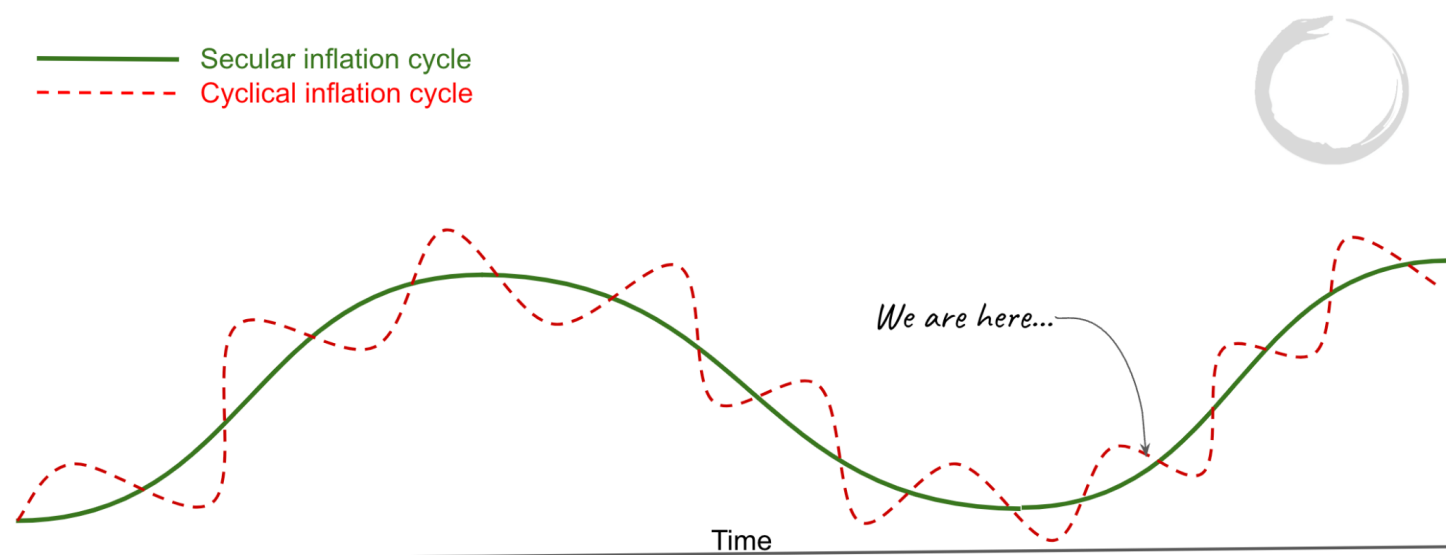
The Price Cycle...

Inflation is one of the most important and yet *least* understood dynamics of the economic machine. It's one of the Four Forces that drive long-term asset returns. These being:

1. Real economic growth
2. Inflation
3. Asset supply
4. Asset preferences

Inflation, like everything in economics, moves in cyclical waves due to the reflexiveness inherent in its dynamic process.

Like debt cycles, there are secular long-term waves and shorter cyclical ones. The lengths of each vary and are dependent on the drivers and conditions behind them.



There's also a big difference in inflation dynamics between [hard currency countries](#) that are internally financed (DM countries) and [soft ones](#), like most emerging markets which are dependent on external financing.

For the purposes of this piece, we'll be focusing on the former, and in particular, on the US. Leaving the rest to explore at a later date.

We'll start by going through cyclical inflation; exploring what it is, what its drivers are, and how it impacts markets. Then we'll dive into the more misunderstood aspects of inflation, which is its longer-term secular dynamics in a follow-up piece.

The hope is that this discussion will enable you to more effectively navigate where we're headed. Which, as I'll argue, is a new rising secular inflation regime following the current cyclical decline in prices.

The result of this will be a new baseline level of inflation. This baseline will be in the 3%-6% range over the next decade, which is dramatically higher than what it's been for the past 30+ years.

Milton Friedman is wrong...

In 2009, Warren Buffett wrote in his annual [report to shareholders](#) that (emphasis by me):

This debilitating spiral has spurred our government to take massive action. In poker terms, the Treasury and the Fed have gone "all in." Economic medicine that was previously meted out by the cupful has recently been dispensed by the barrel.

*These once-unthinkable dosages will almost certainly bring on unwelcome aftereffects. Their precise nature is anyone's guess, though **one likely consequence is an onslaught of inflation**. Moreover, major industries have become dependent on Federal assistance, and they will be followed by cities and states bearing mind-boggling requests. Weaning these entities from the public teat will be a political challenge. They won't leave willingly.*

Inflation briefly spiked to 3.8% that cycle, on the back of a major bull run in oil prices, before rolling over to swing around 1.5% for the remainder of the cycle.

Not to pick on Buffett. He was in good company with that bad inflation call, as it was the popular take amongst most big-name investors at the time. All who clearly got that one wrong.

The reason why is that they *didn't* understand the transmission mechanism of inflation. What drives it, and more importantly, what makes it stick

In 09', Bernanke's Fed embarked on a new financial experiment. Something called quantitative easing (QE), which we are now all too familiar with, but which was a novel concept at the time.

The process involved the Fed buying assets from the financial sector, swapping cash for financial assets (USTs and MBSs). The central bank “paid” for these assets by crediting the reserve balance of the commercial banking system. This raised M0, a measure of the monetary base, also known as “high-powered money.”

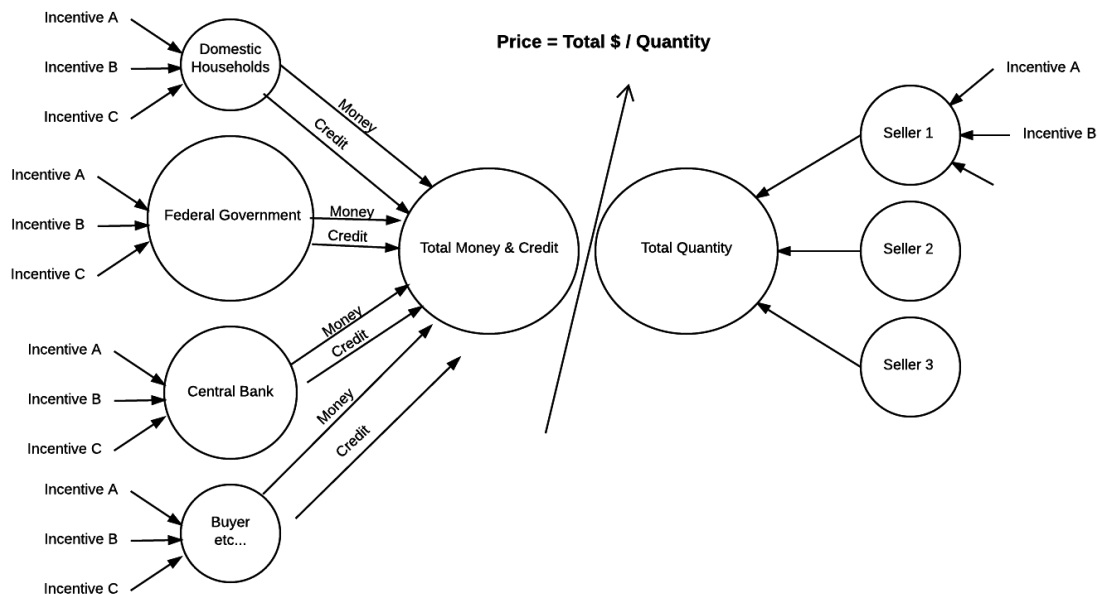
Essentially, the Fed added more zeros to its digital balance sheet and bought a bunch of treasuries from banks in an effort to incite lending, lower long-term interest rates, and push investors out the risk curve.

Market participants, including those like Buffett and Druckenmiller, looked at this large-scale increase in the monetary base and, working off Milton Friedman’s famous dictum that “Inflation is always and everywhere a monetary phenomenon,” predicted prices would sky.

But instead of inflation, we got sticky disinflation, with below-trend growth in prices.

To understand why we need to understand the Transactions Based Approach (TBA) and the real nature of money.

Here’s a section from Bridgewater’s 2015 Debt Cycle framework PDF ([link here](#)) with a good description of what the TBA is (emphasis by me).



The traditional way of looking at the relationship between supply, demand and price measures both supply and demand via the same quantity number (i.e., at any point the demand is equal to the supply which is the amount of quantity exchanged) and the price is described as changing via what is called velocity.

***There is no attention paid to the total amount of spending that occurred, who spent it, and why they spent it.** Yet, in any time and across all time frames, the relationship between the change in the quantities exchanged and the change in the price will change based on these factors that are being ignored. Throwing all buyers into one group (rather distinguishing between them and understanding their motivations) and measuring their demand in terms of quantity bought (rather than in the amount spent) and ignoring whether the spending was paid for via money or credit, creates a theoretical and imprecise picture of the markets and the economy.*

Most of what economists call the velocity of money is not the velocity of money of money at all – it is credit creation.** Velocity is a misleading term created to explain how the amount of spending in a year (GDP) could be paid for by a smaller amount of money. To explain this relationship, people divided the amount of GDP by the amount of money to convey the picture that money is going around at a speed of so many times per year, which is called velocity. The economy doesn't work that way. Instead, **much of spending comes from credit creation, and credit creation doesn't need money to go around in order to occur. Understanding this has big implications for understanding how the economy and markets will work.

For example, whereas one who has the traditional perspective might think that a large increase in the amount of money will be inflationary, one using a transactions based approach will understand that it is the amount of spending that changes prices, so that if the increase in the amount of money is offsetting a decrease in the amount of credit, it won't make a difference; in fact, if the amount of credit is contracting and the amount of money is not increased, the amount of spending will decline and prices will fall.

Money = cash + credit. Most people think of money as cash. In reality, money is mostly credit. There's approximately \$5trn in physical US dollars in existence, while there's something like \$70trn in USD credit.

And because credit (demand) is more easily created and destroyed than the production of goods (supply), say, for instance, the excavation of a copper mine or the building of a lumber mill, we get price cycles.

These swings in prices then drive monetary policy, which then drives economic cycles, and so on and so forth.

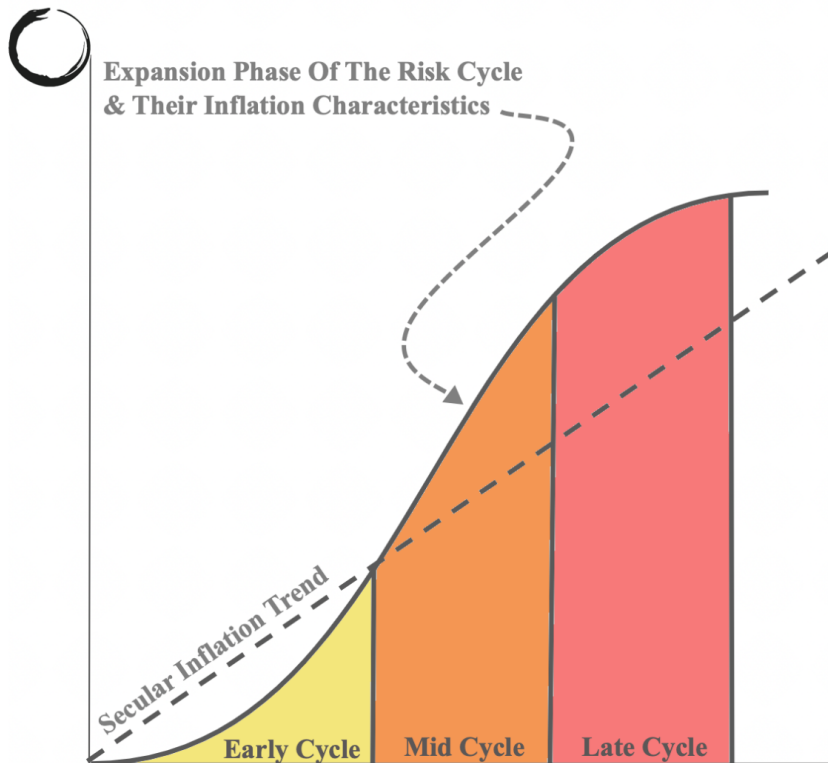
This sequence is what creates the short-term Risk Cycle (aka Credit/Debt Cycle, Business Cycle, Bull/Bear Market, etc...).

It's in the "late-cycle" period of this upswing, where inflationary pressures are the strongest. It is then when there's little slack left in the system. Unemployment is low, financial conditions are easy, and credit creation is high, which drives an increase in spending within the system.

This puts an upward bias on the trend direction of inflation (other factors and conditions will determine the significance and duration of that trend). This eventually leads to a tightening Fed, more restrictive financial conditions, falling credit growth, lower demand, and reverting inflation.

And so it goes...

Here's an illustration of the three stages of the Risk-Cycle.



EARLY CYCLE: High unemployment but strong growth as inventory rebuilding and lower interest rates incentivize demand for rate sensitive consumer items (cars, houses, etc..) Inflation is low due to excess capacity in system. Average early cycle period is six quarters.

MID CYCLE: Economic growth slows as initial rate driven consumption and inventory restocking boom slows. Unemployment rate declines but inflation stays low due to excess capacity and cooling spending. Average mid cycle period is four quarters.

LATE CYCLE: Economic growth picks up. Risk-appetite is high. Unemployment is low & labor/capacity constraints emerge. High credit creation and “wealth effect” from inflated asset prices drive spending boom which hits constrained Econ & inflationary pressures emerge. This leads to the tightening phase and the start of the transitioning of the cycle from Risk-on to Risk-off.

This is why there’s a well-documented relationship between the output gap and forward equity returns ([link here](#)).

The chain of causation goes from too much spending (demand) running up against too little capacity (supply). This closed output gap sparks inflationary pressures. Rising inflation leads to a restrictive Fed and higher rates, which drives equities to re-rate lower and liquidity to tighten in a vicious cycle.

This general sequence is what Paul Tudor Jones is referring to when he says, “You look at every bear market and they’ve always basically occurred because of an uptick in inflation and an uptick in interest rates.”

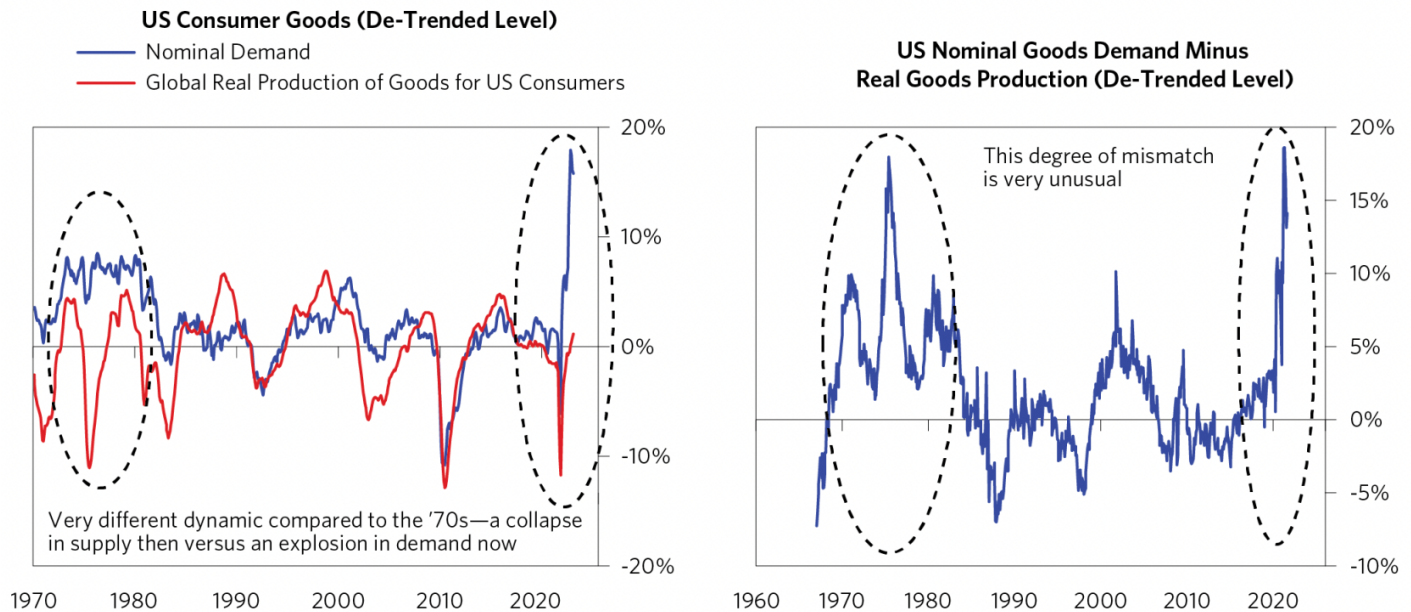
So to return to our post-GFC example. What happened was that the Fed created a bunch of cash. But this cash just sat on bank balance sheets because consumers weren’t in a position to borrow and banks didn’t want to lend, so the total “money” in the system actually remained muted, and spending (demand) was flat, and as a result, inflation was low.

Contrast that period with today, and we can see the stark difference in conditions.

This chart from Bridgewater shows the incredibly large spread between US nominal goods demand and real goods production.

This time around, instead of just financial QE. The US also embarked on fiscal QE, where the federal government gave cash directly to consumers. This direct infusion of cash straight into consumers' pockets led to an immediate and significant rise in spending (demand).

And while most focused on the supply chain bottlenecks caused by rolling COVID lockdowns in China and elsewhere, along with the Russian invasion of Ukraine. We can see on the chart to the left that these weren't the predominant drivers of the supply/demand mismatch. It was, in fact, too much of a good thing causing demand to spike to historical levels.



This isn't to say that the supply side (country's capacity for production of goods and services) can't play a significant role (we can see the effects of the 73' Oil embargo on the US in the chart to the left).

It often does. But the impacts tend to be limited in duration, or they have a low and slow burn over time.

Let me explain.

The supply side of the equation can be broken down into two different groups.

1. **Shocks:** These are pandemics, wars, and unpredictable disasters, which quickly knock out a large portion of previously expected supply, causing near-term prices to rise. If this occurs in major economic inputs, such as oil and gas, their price rises can then ripple throughout other prices in the supply chain. Shocks, by their nature, tend to be short-lived, though, as higher prices incentivize economic actors to quickly adapt and find alternatives to replace the lost production (see EU energy shock from Russia-Ukraine war). So while shocks can cause large price spikes, they tend to be short-lived and so have a limited impact on the longer-term inflation trend.
2. **Capital Cycle Constraints:** Capital cycle-driven supply constraints tend to last longer but have a lower though steady impact on trend inflation. An example of this is what we're just starting to experience in the oil and gas space now. The world is short oil due to a decade of underfunding production. This production is likely to fall far short of global demand in the years ahead. This will have a steady positive impact on prices, which will be a tailwind for broader inflation over the coming years.

So far, we've covered that it's the demand side, particularly credit-driven demand, which propels cyclical inflation. While supply shocks spur price volatility around that cyclical trend inflation. And [Capital Cycle](#) constraints affect price trends on a lower and longer basis.

And we've gone over the three different expansion stages of the Risk Cycle, along with their inflationary characteristics.

But how can we apply this in a practical manner, in a way that helps us better navigate the market when one of its four most important drivers (inflation) is having an outsized influence on equity returns?

Verdad cap has done some research into various business cycle indicators and input pricing as signals for inflationary dynamics ([link here](#)).

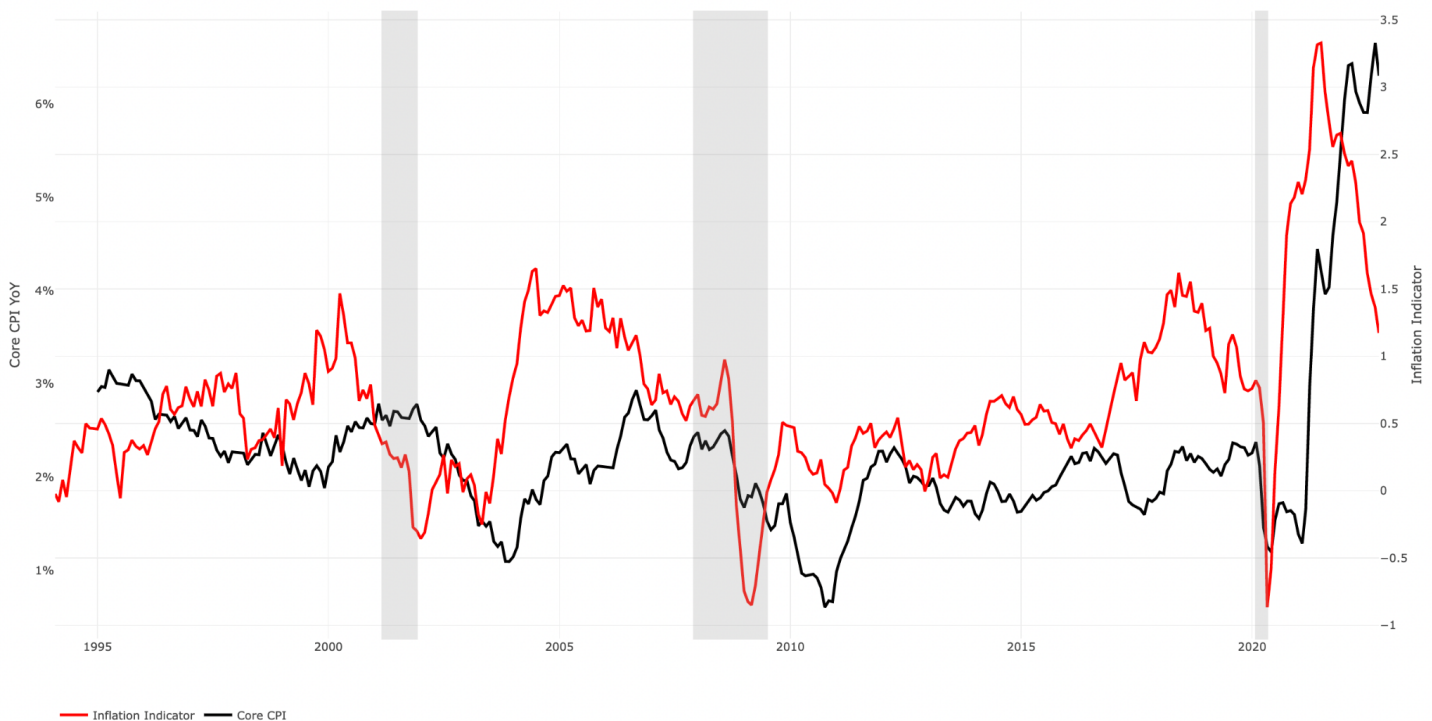
Indicator		Signal for Rising Inflation (Reverse for Falling Inflation)	Excess Accuracy (vs. Actual Inflation Changes)
Combined Signal		<ul style="list-style-type: none"> Assumes rising inflation if score > 2 Score based on Business Cycle and Commodities Indicators (max score = 4) 	12%
Business Cycle	Slope of the Yield Curve*	<ul style="list-style-type: none"> Slope < 200-day moving average (i.e., relatively low cost of borrowing) 	10%
	High-Yield Spread**	<ul style="list-style-type: none"> Spread < 200-day moving average (i.e., relatively low perceived economic risk) 	9%
Commodities	GSCI Commodities Index Level	<ul style="list-style-type: none"> Index level > 200-day moving average 	9%
	Gold Price	<ul style="list-style-type: none"> Price > 200-day moving average 	6%
Expert Inflation Expectations	Survey of Professional Forecasters	<ul style="list-style-type: none"> Expected inflation > 200-day moving average 	4%
	Breakeven Rate	<ul style="list-style-type: none"> Breakeven rate > 200-day moving average 	4%

The yield curve and credit spreads are well-documented indicators of where we're at in the business/risk cycle. And tracking the trend and rate-of-change in commodities give us a real-time look at broader demand pressures.

But we can improve on this further by including leads on economic activity such as ISM new orders, major drivers of the "wealth effect" like changes in home prices, and underlying price measures such as NFIB prices.

This is what we've done with the current V.2 of our Inflation Lead indicator located on the inflation tab in the HUD ([link here](#)). This indicator has a strong 12-month lead on CPI (core shown below, where the relationship is strong but not as significant).

Inflation Leading Indicator



When looking at this indicator, it is the direction and rate-of-change, and *not* the level that matters. So viewing it today suggests we'll see a continued deceleration in CPI over the next six months.

This is to be expected because of where we are in the risk cycle.

We've already run through the Late Cycle stage and are now on the backend of the expansion cycle. It's here where tighter financial conditions cause credit creation to collapse. As a result, demand slows eventually below the level of supply, and cyclical inflation falls.

None of this is controversial or that illuminating. This is how the progression of these cycles plays out. This is why I find the comments on inflation at the top of this piece so banal.

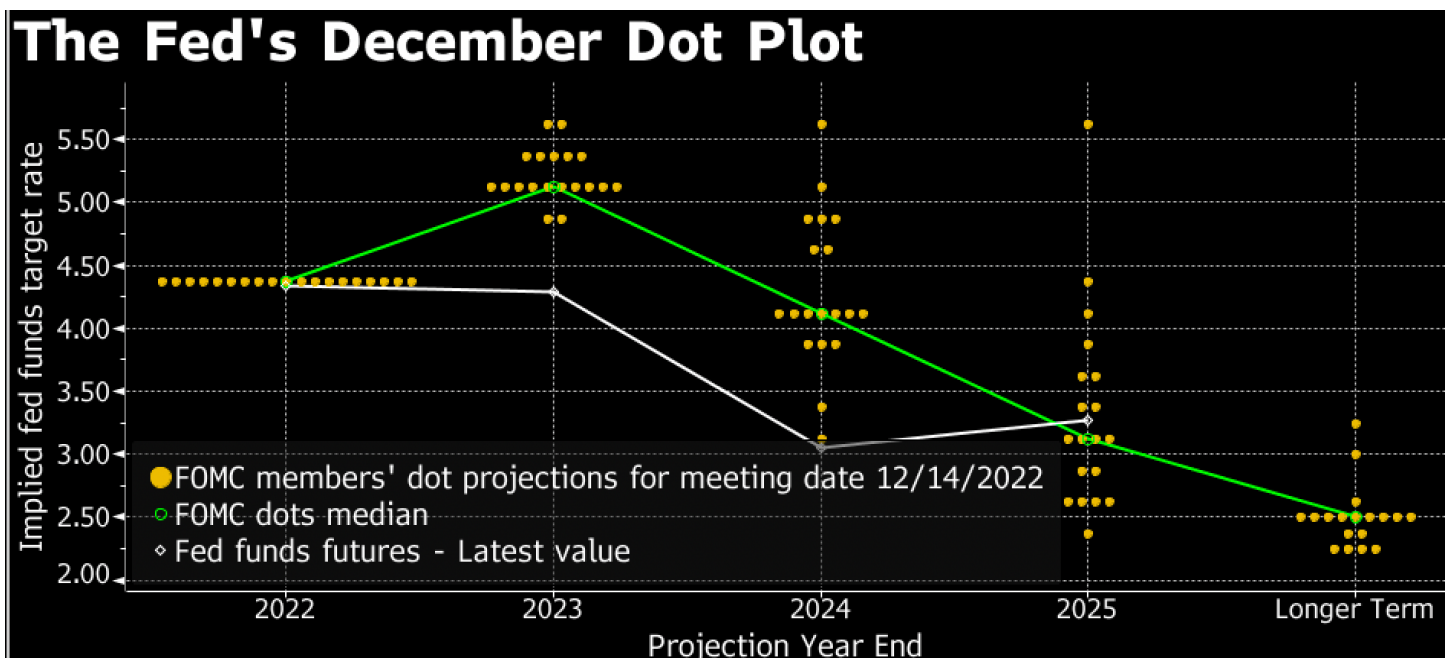
What *is* interesting though, is where inflation ends up settling and how it behaves in the next expansionary phase of the Risk Cycle. Does it revert back to its trendline characteristics of the last 30+ years, or has something fundamentally changed?

I believe it's the latter. And that's what we'll explore in our next piece on inflation. We'll look at the major secular drivers of price cycles. The things that make price changes "sticky". I'll explain why it primarily comes down to wages and the conditions in which wage trends are set.

We'll talk about why it's the volatility of prices, more so than their levels, that matter for equity returns. And we'll finish with a discussion around what a new secular price regime of average annualized 3%-6% inflation and greater volatility around that trend will mean for markets.

Nothing notable from the Game Masters, end of year rally is still odds on (but we need the bulls to prove themselves)...

The Fed raised by the expected 50bps, bringing the FF rate to 4.5%, the highest level since late 07'. There was a bit more tough talk from Powell. Nothing particularly notable or out of line with previous messaging over the past two months.

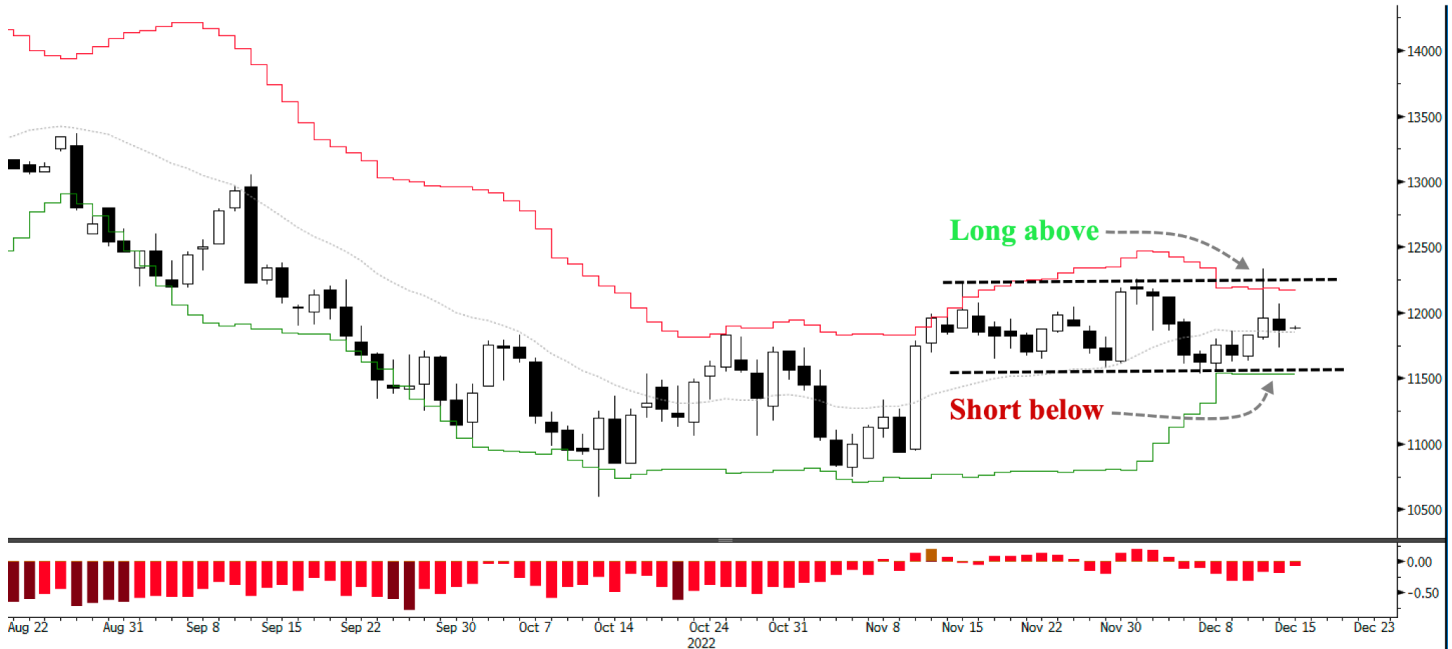


The Qs are still chopping around in no man's land. We're long a small position but are waiting for the tape to tip its hand. A move below would signal the end of year rally is on. A daily close

below this range would mean we cut and derisk as the bear market rally has likely played itself out.

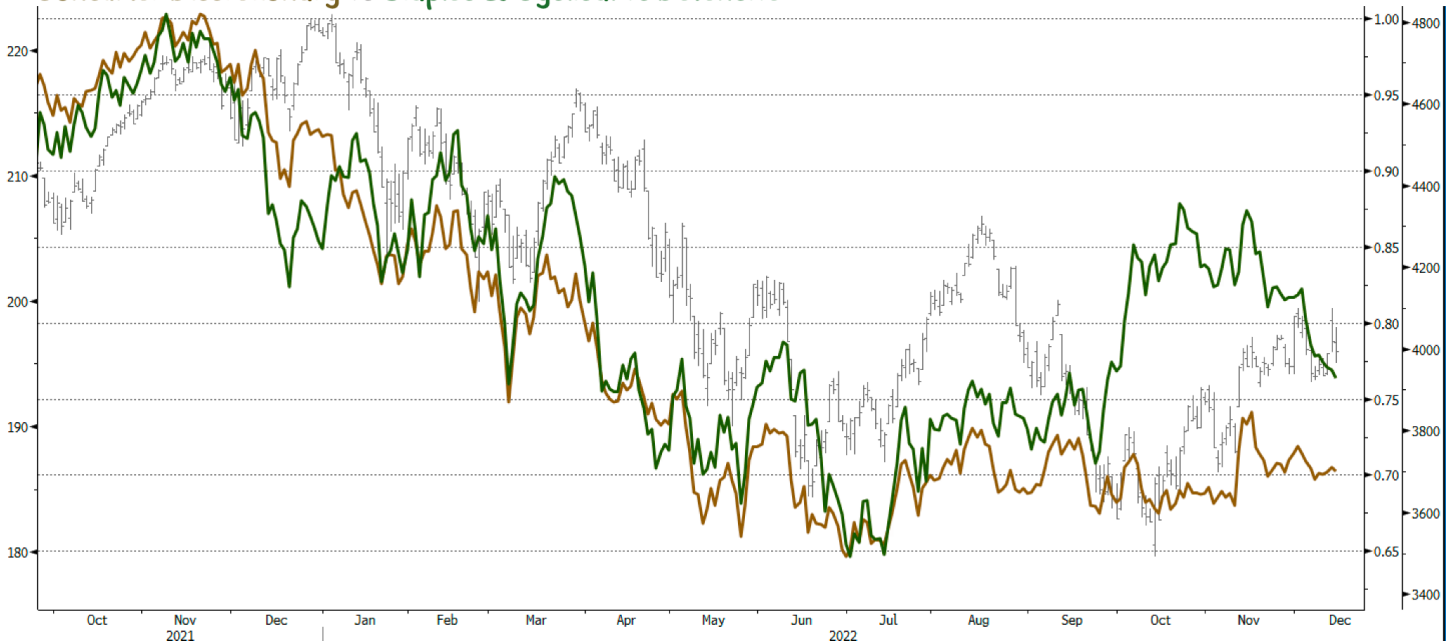
The German DAX is still probably the best equity index expression if we get a risk-on rally.

Nasdaq - daily



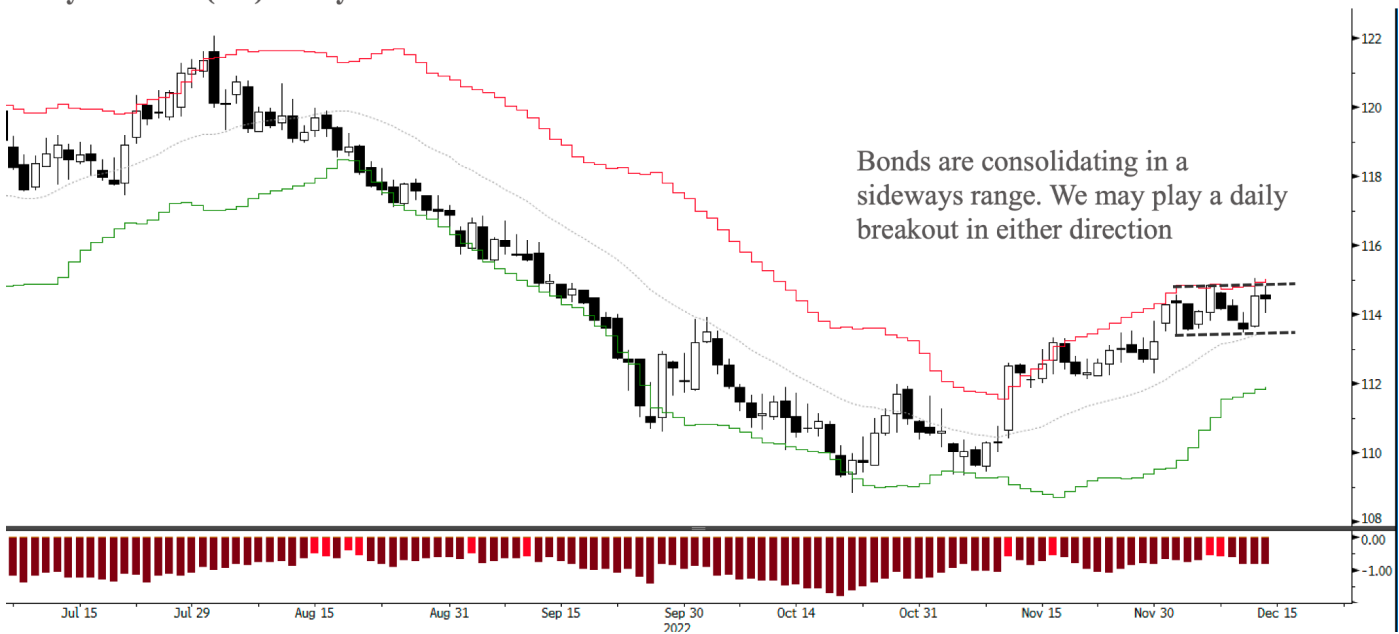
I'm losing faith in the bull rally case a bit, though. Market internal leads, like those pictured below, continue to trade heavily, while breadth is neutral to weak. And we've seen zero confirming breadth thrusts over the past few weeks.

Consumer Discretionary vs Staples & Cyclical vs Defensive



This all still feels like a repositioning rally driven almost entirely by the move in yields. Speaking of which, bonds are worth watching here. Turns out we took profits on our ultra bond position prematurely.

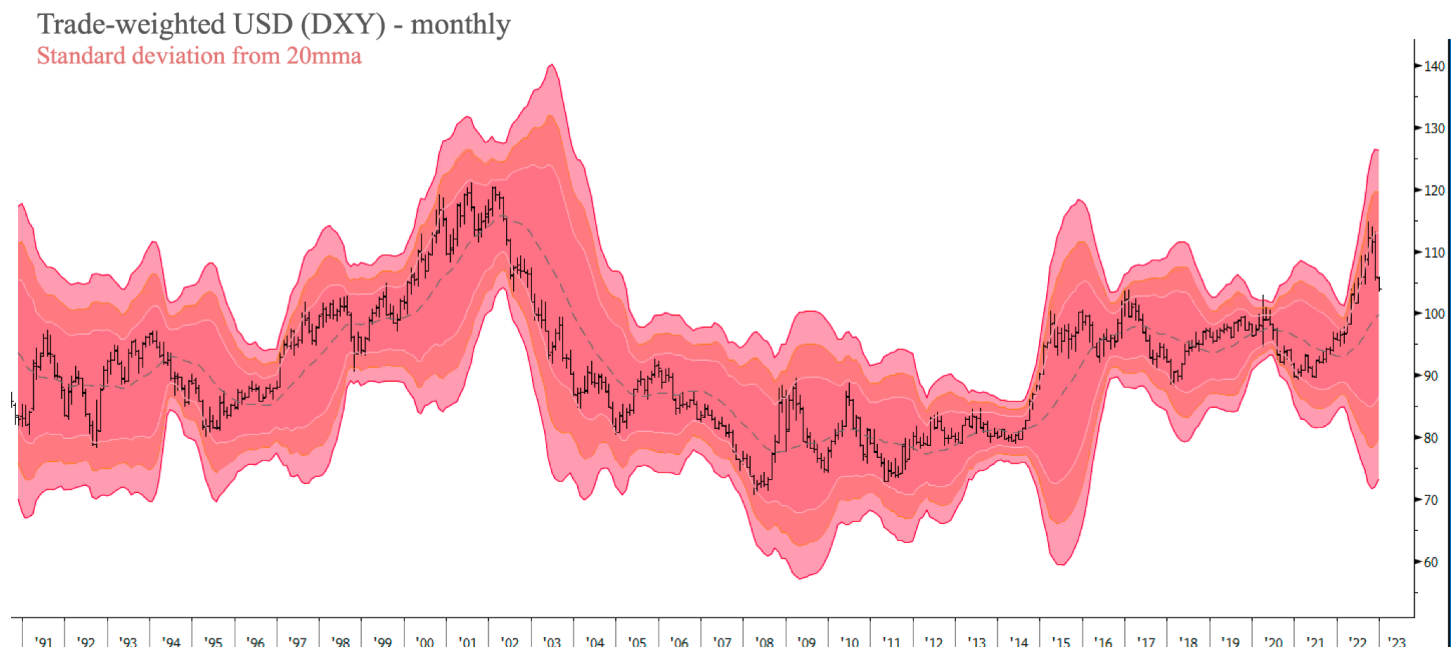
10-year Notes (ZN) - daily



We broke a trading rule which is to **never sell an entire position just because it's overbought/sold in your favor**. Always better to take partial profits and let the tape tell you when the trend is done.

The US dollar is another interesting market to watch. There are a few key technical points to consider.

One, we're seeing expected mean reversion following a near-historic extension from key moving averages. DXY hit 3stdev above its 20-month moving average back in September

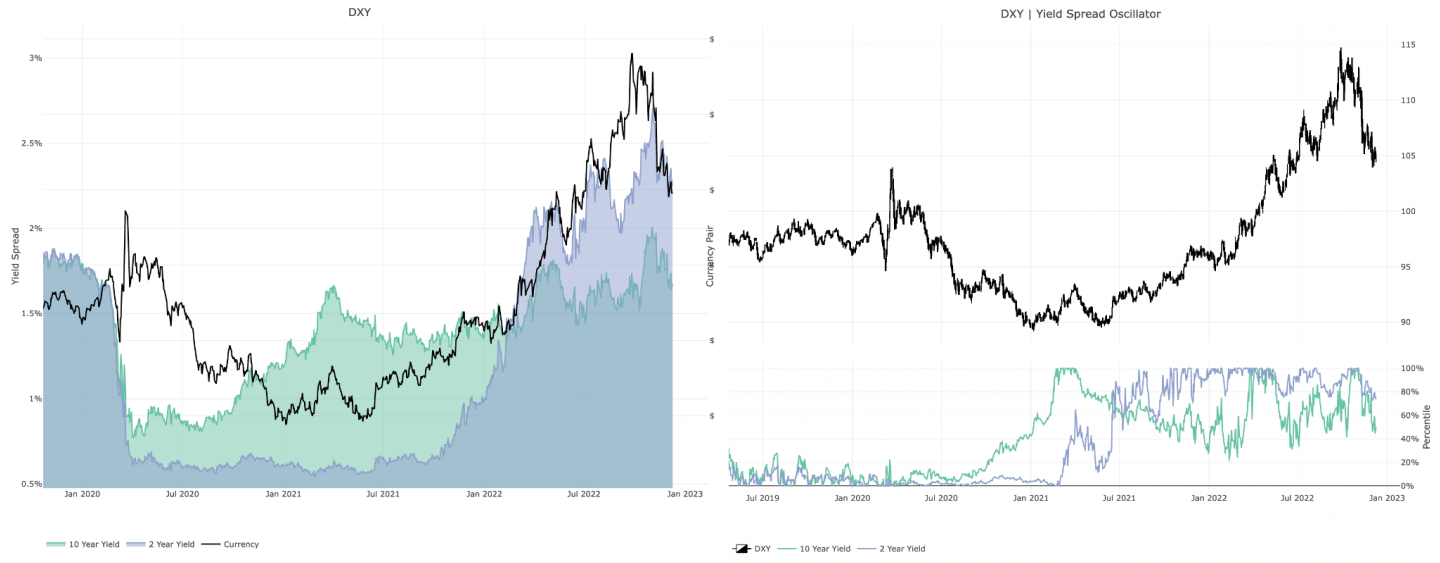


When the DXY has hit this spread above its 20mma, it has historically traded sideways to lower in the following months.

There have only been four other instances going back 50 years, so it's not a large sample. But some strong mean reversion should be expected after a move like the one we saw through summer.



Also, the peak in USD aligns with the peak in DXY's aggregate yield spreads and spread momentum.



I think we see the dollar bottom and make another run at the highs in the next few months though after this reversion plays out.

Slowing growth and the impact of the long lag in monetary tightening will finally start to hit markets at the start of next year. That should help put a flight to safety [Dollar Smile](#) bid under the USD for a bit.

Not to mention, it broke out of a **7-year trading range** this past Spring. Thrusts from these types of long consolidations hardly ever roll over after just one bull leg. There's too much pent-up kinetic energy from that type of compression pattern.

So, for now, we'll sit tight in our EURUSD long. After a bit more of a run, we'll apply a trailing stop and let the market take us out.

Stay frosty and keep your head on a swivel.

Your Macro Operator,

Alex