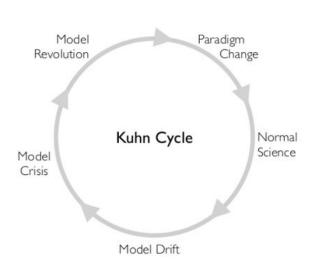




Kuhn Cycle Revisited





To kick off this month's *MIR* we're going to turn back the clock a bit and revisit a concept we covered in <u>December of 2016</u>. This is the *Kuhn Cycle* or what we refer to as the *Soros Cycle* when applied to markets. And just like then, it's an important model for understanding what's going on in the world of macro today. The following excerpt is marked in blue.

Thomas Kuhn, a well-known physicist, philosopher, and historian of science, is regarded by many as one of the most influential thinkers of the 20th century.

In 1962, Kuhn wrote a book titled <u>The Structure of Scientific Revolutions</u> which transformed not only the philosophy of science but the actual way in which scientists approached their work.

One of the more introducing concepts introduced in the book is the role of what Kuhn called "paradigm shifts" in the evolution of scientific thought. He defines a paradigm shift



as "an important change that happens when the usual way of thinking about or doing something is replaced by a new and different way." Kuhn argues that it's these dramatic



shifts in thinking that bring about periods of rapid scientific advancement. This evolution of commonly accepted beliefs is called the "Kuhn Cycle" (shown above) and applies to many other areas outside of science.

The implication of the paradigm shift concept I find most interesting is that nothing is truly ever *known*; facts are simply transitory probability weighted opinions which can never be proven <u>absolutely</u> true or false.

I mention Kuhn in this month's MIR because the paradigm shift concept is part of the mental model we use (something we call regime change) to view markets. It's applicable to what's happening now.

Regime change, in its simplest form, is the idea that market cycles are driven by narratives. Narratives are the opinions and beliefs of various participants in the market. In each cycle, a few narratives dominate all others (we call these the dominant narratives). And it's these dominant narratives that comprise market regimes.

The process of regime change is similar to the Kuhn Cycle. It's something we refer to as the "Soros Cycle" because it was George Soros' work that first got us thinking about the importance of narratives in markets.

The Soros Cycle plays out like this:

An established regime exists and is comprised of a few dominant narratives—>

Narrative drift begins as information starts to challenge accepted fact, which leads to data cherry picking and growing cognitive dissonance—>

<u>Narrative crisis</u> hits because reality has diverged too far from the dominant narrative for the regime to be sustained (narratives always lag shifts in reality)—>

Narrative revolution finally happens when reality forces the majority of people who were reluctant to admit they were wrong to adopt a new narrative—>

Regime change occurs when a new narrative becomes dominant and accepted by the majority of market participants. It's reinforced by reality which eventually brings us full circle back to the established regime.

We're in a <u>narrative crisis</u> right now. The accepted wisdom of the last few years has been dominated by narratives of "secular stagnation", the "central bank put", and "lower for longer". These narratives were predicated on the belief that interest rates in the

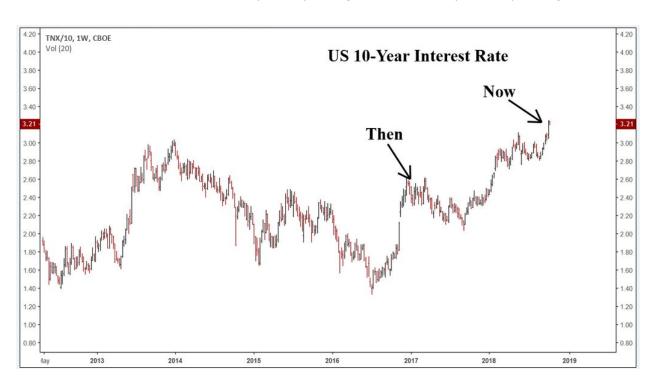


western world would stay near zero for a long time. In fact, many financial pundits and academics seriously stated that "rates might not rise again during their lifetimes".

This lower for longer regime drove markets to price assets (particularly bonds) for an environment where the possibility of inflation and thus rising rates was virtually zilch.

Like all market narratives, this belief was only true for so long, but now reality has changed, which means the dominant narrative must change as well...

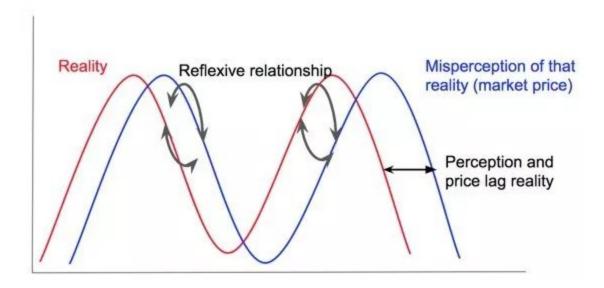
When we wrote the above, the US 10yr was yielding 2.3%. It recently hit a 7-year high of 3.25%.



The key narrative/assumption underpinning the constellation of asset prices throughout this entire market cycle has been that long-term interest rates can never go up. This means that discount rates can never go up much. Which, in turn, means that the net present value of cash flow producing assets today, has become quite high.

This entrenched market regime continues to suffer through a prolonged <u>Narrative Crisis</u>. This is because market perception (prices) had wildly diverged from reality — yields were far too low. The rise in yields over the last 18-months is simply a reflection of this divergence working to close its <u>reality/perception gap</u>.

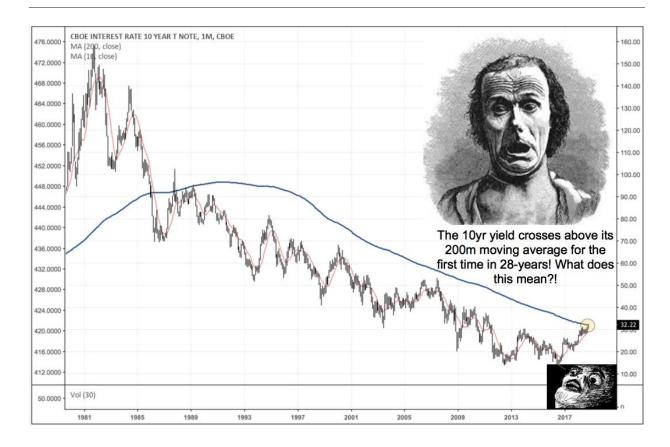




This process will progress into a full-blown <u>Narrative Revolution</u>, one where the dominant belief will then become that yields can <u>only</u> go higher; amounting to a total narrative <u>Regime Change</u>. We are nearing this point but still have some ways to go. Once we do, positioning will become crowded on the short side of bonds while at the sametime yields overshoot to levels that cannot reasonably be sustained. The process will then begin anew and work itself in reverse.

Let's first walk through what exactly is driving the current rise in interest rates and then we'll talk about what the implications are for markets and how to position to benefit from the change.





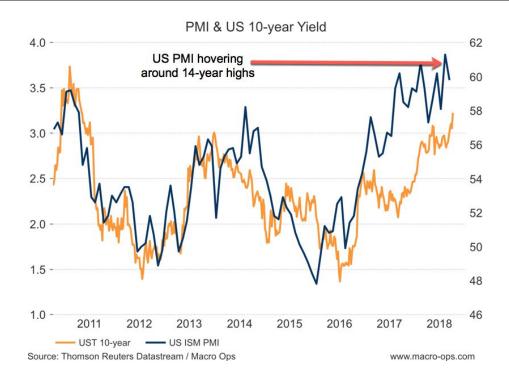
US interest rates are rising (bonds selling off) due to the following three reasons:

- 1. Strengthening US economic growth and inflation data
- 2. Rising supply of treasuries and a Fed on avalanche patrol
- 3. Forced selling from EM and dwindling capital recycling

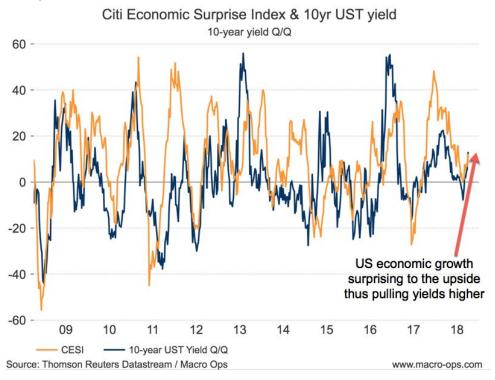
Starting at the top, yields are rising because growth and inflation numbers have been surprising to the upside.

The PMI in the US has risen from its mid-2015 lows to 14-year highs where it's been hovering around the 60 level, indicating a strong and expanding economy.



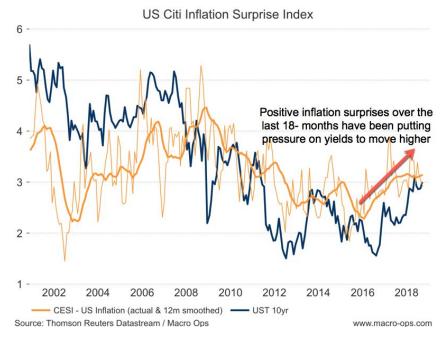


The market came into the year too bearish on the US economy which has led to constant positive revisions. Remember, it's the difference between perception and how reality *actually* unfolds (data) that drives price action. These positive surprises in economic growth have been pulling yields higher.

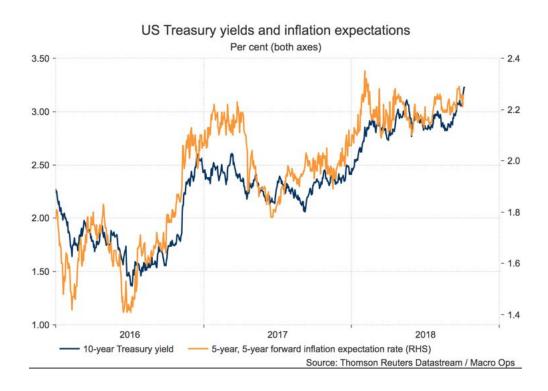




Like economic growth, inflation data has also been coming in stronger than expected over the last 18-months.



And this stronger than expected economic and inflation data is helping to anchor expectations over future inflation higher.





This brings us to our second point — a glut of Treasuries and a hawkish Fed.

Members of the FOMC have been pitching a very consistent message over these last few months... and that's that interest rates are going higher.

Here's the following take from one of my favorite Fed Whisperers, Tim Duy (emphasis mine):

Federal Reserve Chairman Jerome Powell did a Q&A today. I was not surprised that he maintained the continued "gradual rate hike" mantra. I was surprised when he said "we're a long way from neutral, probably." That seemed like it was a bit of a slip. And a hawkish one at that. What seems remarkable to me is that I keep hearing a dovish interpretation of the Fed's recent disavowal of r-star and the related demise of forward guidance. But what Powell let slip is that he clearly still has an estimate of neutral and we are nowhere near it. That's hawkish.

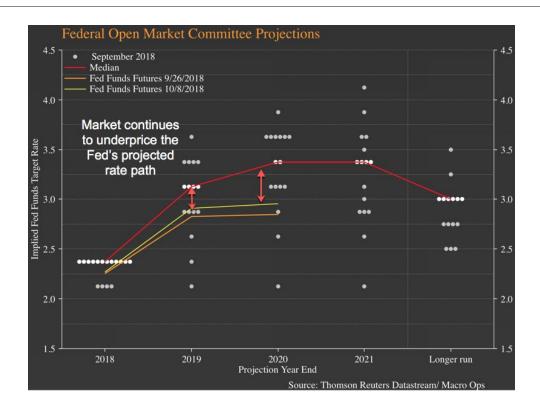
Powell also added that "we may go past neutral." In this sense, he is arguably a bit more dovish than colleagues such as Chicago Federal Reserve President Charles Evans, who reiterated today his expectation that rates turn restrictive. Still, I see Powell as edging toward admitting what the forecasts reveal. Remember, you don't have r-star as a guide anymore, but you still have the rate forecasts. You might say that there is a wide variation in the rate forecasts. But it looks like there is a common element – no matter where a central banker thinks neutral is, the majority if not all (not counting St. Louis Federal Reserve President James Bullard), expect rates will climb above their estimate of neutral. In other words, they all see policy as becoming restrictive.

Take the forecasts seriously. Handicap the data against the forecasts. Right now, the forecasts tell a hawkish story, especially if you let go of the r-star anchor. And the data doesn't give reason to think otherwise.

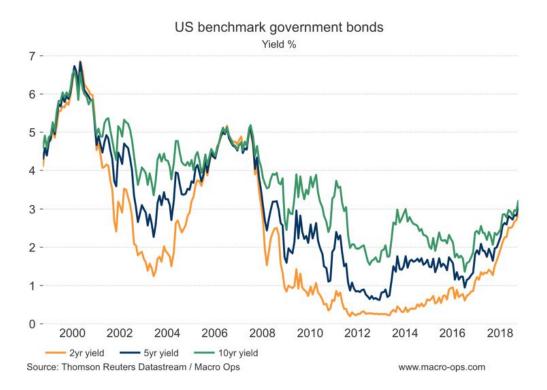
It seems to me that Powell and team are moving to avalanche patrol. They're signaling to the market that the central bank put has been pulled. They're now throwing out dynamite to try and reignite the market pricing mechanism.

What does this mean? It means that we should expect the Fed to keep on hiking interest rates along its projected path until something breaks. The market is underpricing the Fed's determination on this front. Rates will rise until this mispricing is closed.





And so the long end will continue to be pulled higher by the front end.

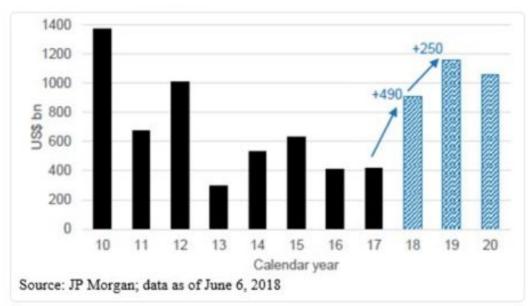




Then we have the issue of increasing Treasury supply combined with a decreasing reinvestment rate by the Fed (quantitative tightening).

Due to tax cuts and increased government spending, the Treasury will have to issue \$1.3 trillion of government paper over the next 12 months. While at the same time, the Federal Reserve is letting \$50 billion of Treasuries roll off their books per month. This means we'll see a \$600 billion drop in demand for government bonds from the Fed over the coming year.

This is driving the net issuance (net of Fed activity) of Treasuries to their highest levels in over 8 years.



The increased supply of Treasuries combined with the diminishing bid from the Fed means that demand has to come from elsewhere or yields will continue to rise until it attracts enough demand and the market can clear.

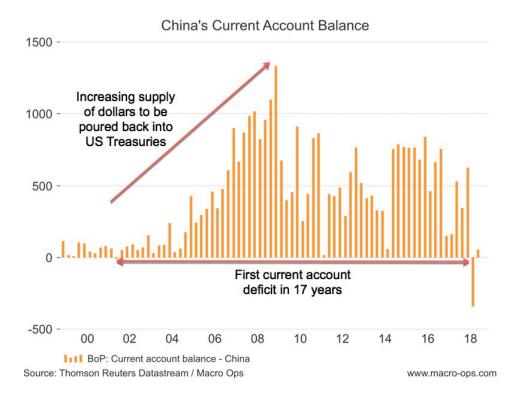
Which brings me to the third reason — fored EM selling and dwindling capital recycling.

Over the last 20-years a persistent bid for US paper came from emerging markets and China in particular.

It worked like this.

China exported more goods than they imported which meant they ran a large current account surplus. They built up their foreign exchange reserves through this and recycled that money back into US treasuries. This depressed interest rates in the US (and developed markets in general), which kept credit loose and demand for Chinese exports high.

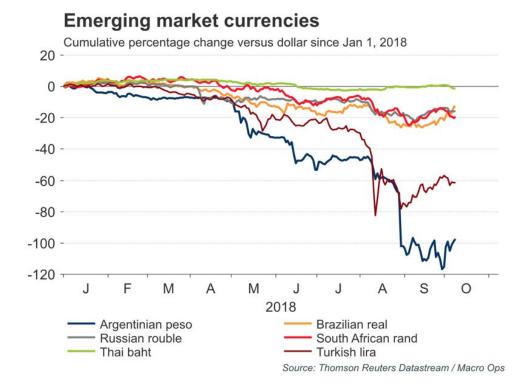




Deteriorating current accounts in China and throughout emerging markets (EM) translates into lower structural demand for US paper.

In addition, as EM currencies have been clobbered over the last year due to their widening current account deficits, EM central banks became forced sellers of USD assets (Treasuries) in an effort to stave off the slide in their home currencies.





These structural changes in emerging markets are unlikely to change anytime soon either, as we recently <u>discussed</u>.

So to sum up, interest rates are rising because:

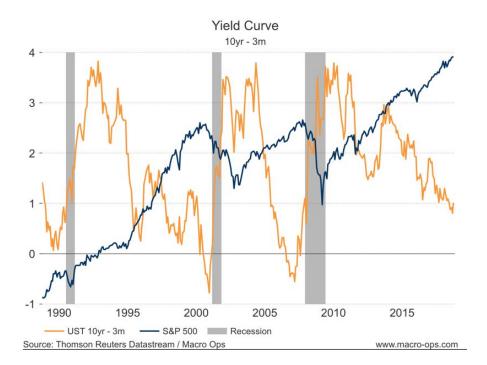
- Growth and inflation numbers have surprised to the upside over the last year. Positive growth/inflation surprises force the market to revise its expectations higher and position accordingly. This is leading to a higher anchoring of inflation expectations for the future as the "yields can't go up" narrative slowly dies.
- ❖ The Fed is signaling its intention to hike rates until something breaks. It's now on avalanche patrol in an effort to revive the market's normal pricing mechanism.
- ❖ Tax cuts and increased government spending have blown wide the budget deficit and substantially raised the supply of Treasuries hitting the market. While at the same time, we're seeing the Fed decrease its Treasury holdings by \$50B a month.
- Current account deficits in emerging markets have killed the structural recycling bid for US paper and EM central banks are likely to continue being sellers of Treasuries as they try and cement the floor under their currencies.

Now, what does this all mean?

First, our baseline should be that interest rates will continue to rise until the data erodes enough to slow the Fed. The front end will lead and the curve will continue to flatten as the long end



rises more slowly over suspicions of the long-term viability of higher rates — rightly so in our opinion.



But we shouldn't expect rates to move up in a straight line.

Rather, it's likely we'll see seesaw action as rates move 2-steps up then take 1-step back. The yield on the 10-year recently hit overbought levels, on a monthly basis, as marked by the red lines below. In the past, these extended RSI levels marked temporary peaks in yields (low in bonds).





The increasing supply of Treasuries and subsequent rising yields will continue to have a "crowding out" effect on emerging markets. And when you take a look at the numbers it's easy to understand why EM has been taken behind the woodshed this year.

For example, when you combine Treasury issuance with the Fed's quantitative tightening, you get over \$1trn in new supply hitting the market year-to-date. This is nearly **3x the combined current account deficits of all emerging markets**.

The money to fund the US government has had to come from somewhere and it's coming from investors reducing their EM holdings and bringing it back into the US. This trend will not reverse any time soon.

Urjit Patel, the Governor of India's central bank, warned about this risk back in early June of this year, writing:

The upheaval stems from the coincidence of two significant events: the Fed's long-awaited moves to trim its balance sheet and a substantial increase in issuing US Treasuries to pay for tax cuts. Given the rapid rise in the size of the US deficit, the Fed must respond by slowing plans to shrink its balance sheet. If it does not, **Treasuries will absorb such a large share of dollar liquidity that a crisis in the rest of the dollar bond markets is inevitable.**



Consider the scale of both events. Starting in October 2017, the Fed began reducing reinvestment of the coupons it receives from debt securities holdings. **That shrinkage** will peak at \$50bn a month by October and total \$1tn by December 2019. Meanwhile, the US fiscal deficit is projected to be \$804bn in 2018 and \$981bn in 2019, implying net issuance by the US government of \$1.169tn and \$1.171tn, respectively, in the two years.

This unintended coincidence has proved to be a "double whammy" for global markets. Dollar funding has evaporated, notably from sovereign debt markets. Emerging markets have witnessed a sharp reversal of foreign capital flows over the past six weeks, often exceeding \$5bn a week. As a result, emerging market bonds and currencies have fallen in value.

This along with the structural limitations keeping emerging market countries <u>BoP constrained</u>, you can see why we've been so bearish on EM since the start of the year. This broader bearish trend will only continue to progress as dollar liquidity is sucked out of global markets and EM assets get crowded out by USTs.

But like bonds, that does not mean EM will go straight down and there are signs we'll see a tradeable bounce in EM soon.

The iShares MSCI Emerging Market etf (EEM) shown below on a monthly basis is currently knocking on long-term support. I think it ultimately breaks back below this level but there is a high probability of a bounce in the interim.



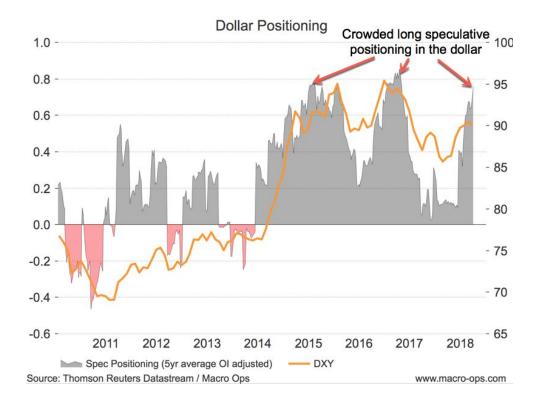


Some reasons for this are just sentiment and positioning. Both have notably turned sour on EM as noted in the latest BofAML Fund Manager Survey.





While speculative long positioning in the dollar — which often moves inversely to EM — has become crowded.



This makes me believe there's an increasing probability that we'll see a short-term bottom in yields, followed by a period of emerging market outperformance, and a retrace in the dollar.

A recent study by Goldman Sachs on similar historical episodes where EM underperformed the US by such a large margin show that past divergences have resulted in EM rallying 80% of the time. They go on to note that:

Half of these rallies are substantial in length (12 months or longer) and half are relatively short-lived (~4 months). The remaining 2 episodes of divergence resulted in both the S&P 500 and MSCI EM selling-off; in other words, there is no divergence episode that was resolved by S&P 500 immediately catching down to MSCI EM.



Exhibit 3: Most EM vs. SPX "divergence" episodes result in EM rallying, though often times this can be short-lived

Divergence Episodes - Summary											
		Start	End	calendar days	Returns			Followed by			
	Cycle				MSCI EM	S&P 500	rel.	EM return (S&P 500 return)			
1.	1982	8-Mar-82	13-Oct-82	219 days	(17)%	28 %	(44)pp	13-mo	Rally +22% (+19)	4-mo	Catch up +17% (-6)
2.	1987	19-Oct-87	5-Jan-88	78	(21)	15	(36)	13-mo	Rally +28% (+15)	13-mo	Catch up +79% (+10)
3.	1994	22-Sep-94	8-Mar-95	167	(32)	5	(57)	4-mo	Rally +24% (+16)		Next Divergence
4.	1994	13-Jul-95	16-Nov-95	126	(14)	6	(57)	19-mo	Rally +31% (+49)		Next Divergence
5.	1997	7-Jul-97	12-Jan-98	189	(38)	3	(41)	3-mo	Rally +23% (+17)		Next Divergence
6.	1998	8-Apr-98	6-Jul-98	89	(22)	5	(27)	2-mo	Sell-off -29% (-17)	14-mo	Rally +63% (+35)
7.	2000	7-Mar-00	1-Sep-00	178	(18)	12	(30)	3-mo	Sell-off -20% (-9)	3-mo	Catch down +3% (-10
8.	2013	9-Jan-13	24-Jun-13	166	(18)	8	(25)	4-mo	Rally +17% (+8)		Next Divergence
9.	2013	15-Oct-13	11-Mar-14	147	(7)	10	(15)	5-mo	Rally +14% (+7)		Next Divergence
10.	2014	25-Aug-14	26-Dec-14	123	(12)	5	(17)	4-mo	Catch up +9% (0)	9-mo	Sell-off -34% (-10)
11.	2018	1-Apr-18	11-Sep-18	163	(14)	9	(24)		(current episode)		
Av	erage (*	1-10)		148 days	(20)%	10 %	(35)pp				

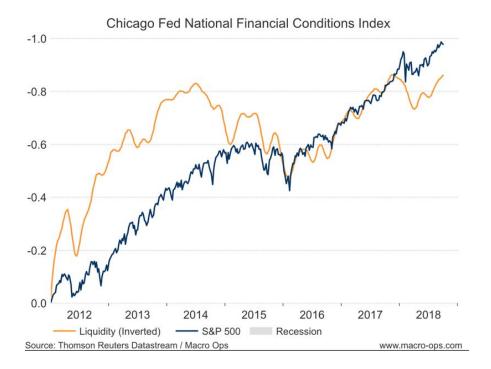
Source: FactSet, Bloomberg, Goldman Sachs Global Investment Research

I believe if we do see a rally it will be of the more short-lived variety; in the 2-4 month range. But because of the lopsided positioning and massive selloffs in EM equities, we could see some significant rallies before they ultimately turn and again, make new lows.



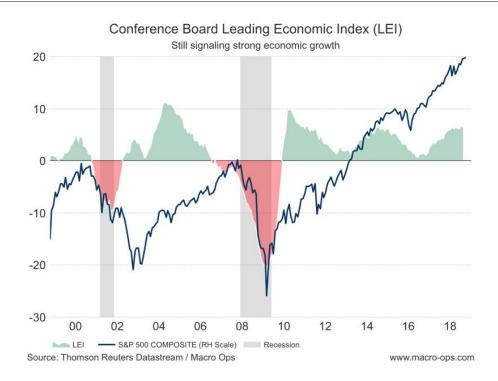
Short-term US Market Overview

Liquidity: Financial conditions in the US remain extremely loose and are at/near all-time cycle highs. This is bullish for risk assets and should prevent the market from experiencing too severe of a selloff in the near-term.

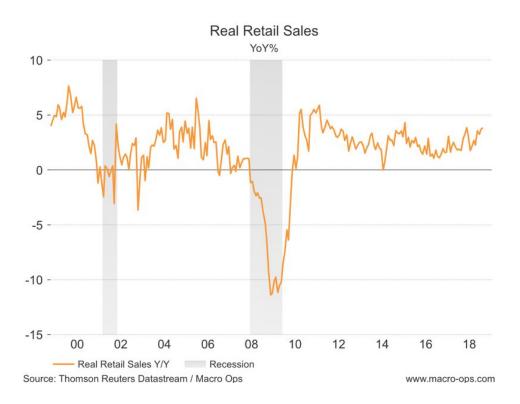


❖ LEI: The conference Board Leading Economic Indicator (LEI), which tracks a basket of US economic indicators, remains in a strong uptrend on both an absolute and YoY basis. This signals that the US economy is strong and recession in the next 12-months is highly improbable.



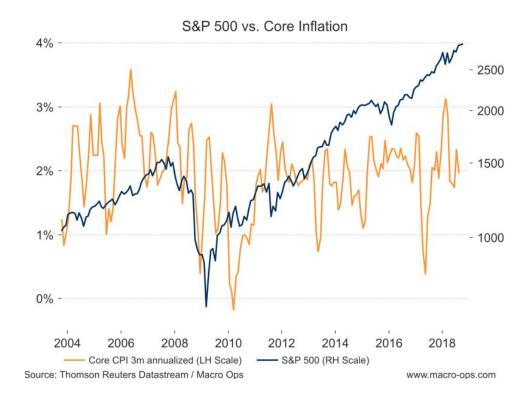


* Real retail sales: Inflation-adjusted retail sales are at multi-year highs on a YoY and absolute basis. We should see retail sales decline well in advance of a recession.



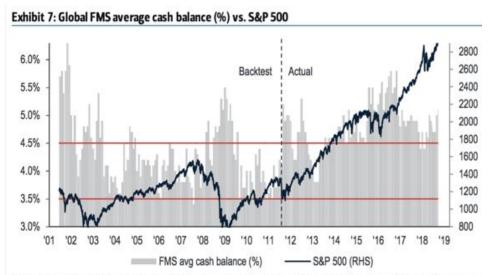


Inflation ROC: The 3-month annualized core inflation rate has come down from its Jan/Feb highs that sent interest rates shooting higher. A slower rate of change in inflation eases pressure on yields and is supportive of stocks.



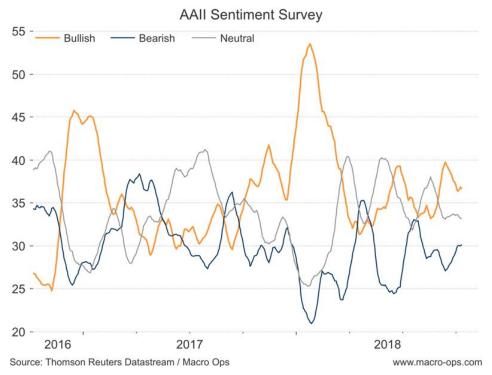
❖ BofAML FMS Cash Balance: FMS investors are bearish, raising cash levels to an 18-month high. This serves as a contrarian signal indicating that we're still far from the end of the current risk cycle and so is bullish for risk assets.





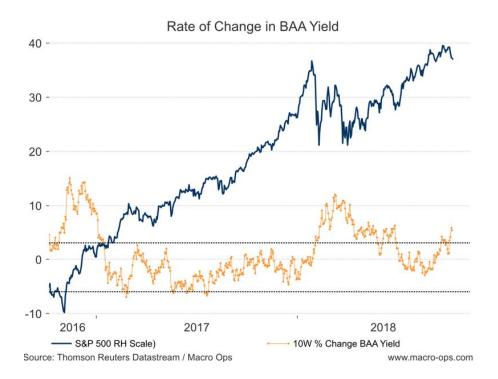
Source: BofA Merrill Lynch Global Fund Manager Survey, Bloomberg. Disclaimer: The Indicators identified above as BofAML Bull & Bear and BofAML Global FMS Cash Rule are intended to be indicative metrics only and may not be used for reference purposes or as a measure of performance for any financial instrument or contract, or otherwise relied upon by third parties for any other purpose, without the prior written consent of BofA Merrill Lynch Global Research. These indicators were not created to act as a benchmark.

AAll Sentiment Survey: Bullish sentiment continues to remain in neutral territory (orange line) while bearish sentiment (blue line) picks up from its lows hit at the start of the year. The overall sentiment picture is supportive of the broader trend up in risk assets.



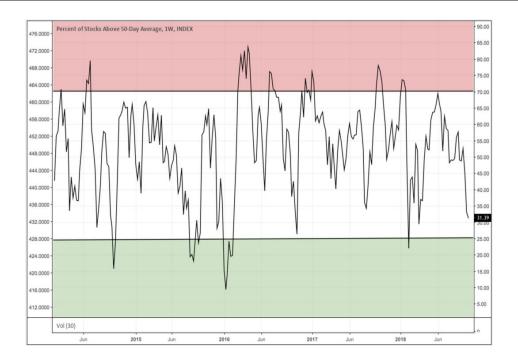


❖ BAA Yield ROC: Bonds compete with stocks for capital flows. Higher yields also mean higher discount rates for stocks and vice versa. That's why the rate of change at which yields rise and fall is important. Fast-rising yields can throw the entire market off kilter as investors pull money. This is what we've been seeing with the recent market volatility. The ROC in yields is currently elevated which is bearish for stocks. We need to see yields settle down before stocks can continue on a sustained advance.



❖ NYSE 50-day MA Breadth: The percent of stocks trading above their 50-day moving averages is currently at 31%. These are depressed levels and nearing oversold conditions (shaded green area below). This means that the short-term bearish trend in stocks is oversold and should reverse shortly.





Bottom Line: We have extremely easy financial conditions, neutral to bearish sentiment levels, strong economic conditions, and oversold technical conditions in the US stock market currently. The one short-term bearish condition is the high ROC in yields. But, as we discussed above, bonds are likely to bottom soon which, once they do, will give stocks the all-clear to move higher. **The primary trend in US stocks remains higher.**



Micro: Disney



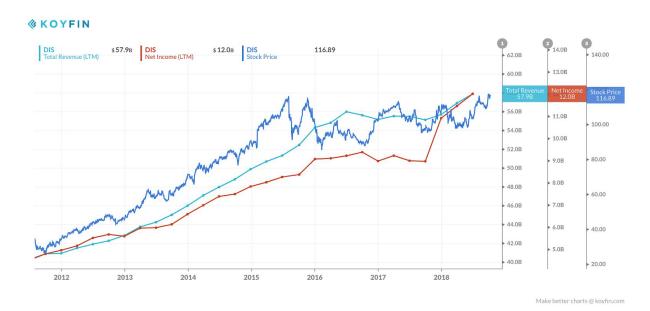
Company Summary: Not much of a summary on this one needed. Disney (DIS) is the most recognizable and one of the most valuable brands in the world, according to Brand Finance. The company has a monopoly on the most popular and prized media titles. The lineup includes Disney Princesses, Marvel, Pixar, Star Wars, Avatar, ESPN, ABC, and since the Fox acquisition there's now Simpsons, X-Men, National Geographic, FX, Searchlight, and on and on...

What is the market pricing?: Disney's stock price is trading at exactly where it was 3-years ago. The company sells for just 11x EV/EBITDA. This is well *below* the valuations of run-of-the-mill old-line media companies like Lions Gate (LGF) at 17x EV/EBITDA, Discovery (DISCA) at 15x EV/EBITDA, and Fox (FOX) at 14.5x EV/EBITDA.

Why the pessimism and low comps?

Well, revenues and net income were — until very recently — flatlined for a few years. The main reason behind Disney's (temporary) slowdown in growth was due to its struggling media business which comprises a large percentage of revenues and operating income.





ESPN sits at the heart of this... The sports network was for years a prized fat margined asset for Disney. But, for reasons partly due to content mismanagement and partly due to secular trends (ie, cord cutting and declining sports viewership) ESPN has seen steadily declining subscriber base since 2013; losing over 11 million total in the last five years.

This trend has soured the market on Disney's prospects. It's why the market now views the company's plans to transition to streaming video on demand (SVOD) through such a negative lens. Instead of valuing Disney's invaluable content, top-tier leadership in Bob Iger, and huge brand moat, the market is instead focused on a coming rise in costs and contracting margins as the company spends on "Disney-flix" and loses licensing revenues in the interim.

Our Variant Perception: This is a fat pitch if there ever was one. It's a classic case of massive myopia blinding the market to the company's true value potential, creating a Grand Canyon-sized mispricing in the process.

Disney... the home of Frozen, Spider Man, Luke Skywalker, Homer Simpson etc... is selling at a lower multiple than Discovery Communications? The creators of shows like *Finding Bigfoot* and *Naked and Afraid*?

Let's just start with brand and content momentum. CEO Bob Iger noted on the latest earnings call that, "With this latest success, our Studio has delivered nine of the top ten biggest domestic box office openings of all time — all of them released in the last six years."

The Disney brand spans not only continents but also generations. This uniquely universal appeal provides the company with enormous pricing power. It's continuously raised prices at its theme parks every year, increasing from \$43 in 2000 to \$135 today.



But let's cut to the chase and get to the market's biggest concerns over its media business and the viability of its direct to consumer video platform.

Through the FOX acquisition, Disney gained control of the video streaming platform Hulu. This gives the company an immediate SVOD customer base of 20 million domestic subscribers, compared to Netflix's US subscriber base of 57m. Not a bad start.

The company also has plans to roll out another streaming app next year (let's call it DisneyFlix for now since a name hasn't been leaked yet) where the company will host its brand name content (think Pixar, Disney Princesses, Star Wars etc..).

There are plans in the works for a number of live action Marvel and Star Wars content that will exclusively show on DisneyFlix. The more adult rated shows and movies will go exclusively to Hulu. The company also recently put out EPSN+ app for sports fans to catch live action sports directly over the internet.

In the very short-term, as in the next 12-18 months, this move will dent revenue and income growth somewhat. That's because Disney will be letting some valuable content licensing deals to expire with the likes of Netflix and Amazon while at the same time some short-term costs will be rising for additional content in getting the DTC services up and running.

But, these moves will end up not only massively boosting revenues but also be very margin accretive in the long run. Vertical integration cuts out wholesale channel costs thus increasing overall margin capture for the company.

A Disney version of Netflix is also going to dramatically boost its reach globally, enabling the company to capture greater sales on sports and movie content that have traditionally been a poor fit for the children's oriented Disney Channel.

In addition, it's going to allow the company to own its connection with the consumer. A DTC service will allow the company to use data and interact with the audience in ways it never has been able to do before. For instance, DisneyFlix will be able to offer a user who's an avid watcher of one of their new live action Star Wars shows, exclusive tickets to visit their new Star Wars themed section of the park after hours... they can sell one of a kind merchandise directly to the fans of their content.... There's near endless opportunity for the company to more effectively leverage its one of a kind assets to create a more valuable user experience and dramatically boost sales.

And this brings us to our last point, that of multiple expansion. Disney trades at a price to sales multiple of 3x. Netflix trades at over 11x.



While we don't expect Disney to reach that kind of multiple, moving to a subscription business model will give the company recurring revenues which allow for a more predictable and thus

higher valued earnings stream.

One of my favorite value investors, Jake Rosser of Coho Capital, summed up the Disney bull thesis well in his latest letter, writing:

We think much of the valuation gravity results from Disney's exposure to the vagaries of a hit-driven business model. This is despite Disney's sustained success in executing across its various media properties. It may take time, but we think Disney's pivot to a digital-first business model will enable it to garner a multiple in-line with other recurring revenue business models. With steady free cash flow and predictable economics, subscription revenue businesses are the Holy Grail of business models. Over time the relationship with customers compounds turning customer revenue streams into a perpetual license.

So how much would the Market pay for a Disney as a Service? For insight, we turn to another consumer experience focused company, Vail Resorts, which introduced its Epic Pass in 2008, allowing skiers to buy a season pass to all its skiing mountains at a deeply discounted price. The Epic Pass resulted in a lower per day price for skiing but dramatically increased the lifetime value of a customer. Vail utilizes insights gleaned from Epic pass users to cross-sell transportation, lodging, rentals, and meals. While in a different industry, Vail 's vertically integrated model offers clues for how to extract value from a subscription eco-system.

The introduction of the Epic Pass was a game changer for the valuation of Vail Resorts. Whereas previously Vail Resorts' stock rose and fell with the snowfall at its resorts it could now be valued on predictable cash flow. Vail Resorts is not a perfect comp for Disney given the scarcity value assets, but we think it is ballpark for how the Market will eventually value Disney's subscription revenues. Vail Resorts trades at a price/ sales multiple of 5.8x compared to a 2.8x multiple at Disney suggesting plenty once the Market confers a subscription multiple on Disney.

Our ideal company is one that pays no attention to Wall Street and instead focuses on widening its moat over time rather than winning earnings race. Such an approach aligns perfectly we invest. Disney's digital makeover underscores it commitment to building a business for the long-term. We are happy to partner with them for the journey.

We've built Disney into our largest position (by a wide margin) over the last six months. By the looks of its recent breakout from a 3-year bull flag, it seems like the market is slowly coming waking up to the large mispricing we're seeing.