MACRO INTELLIGENCE REPORT

Macro Ops
Target. Deploy. Profit.

Is China A Teacup?

In This Issue:

- Coming Turbulence – Pg. 10
- Buy US Bonds – Pg. 20
- Dollar and Gold – Pg. 28
- Mirco: GTX – Pg. 31

Kevin Kelly, Co-Founder of Wired magazine, wrote in his 1994 book on complex emergent systems titled *Out of Control,* that:

> *The most obvious way to do something complex, such as govern 100 million people or walk on two skinny legs, is to come up with a list of all the tasks that need to be done, in the order they are to be done, and then direct their completion from a central command, or brain. The former Soviet Union's economy was wired in this logical but immensely impractical way. Its* ***inherent instability of organization*** *was evident long before it collapsed.*

In dealing with any type of complex systems be they economic, ecological, or socio-political based, the instinctual human response is to want to control and steer them along what we believe to be optimal paths.

Michael Mauboussin notes the danger in giving in to this basic human desire for false certainty and control, writing in his book *Think Twice: Harnessing the Power of Counterintuition:*

> *The problem goes beyond the inscrutable nature of complex adaptive systems. Humans have a deep desire to understand cause and effect, as such links probably conferred humans with evolutionary advantage. In complex adaptive systems,* ***there is no simple method for understanding the whole by studying the parts, so searching for simple agent-level causes of system-level effects is useless.*** *Yet our minds are not beyond making up a cause to relieve the itch of an unexplained effect.* ***When a mind seeking links between cause and effect meets a system that conceals them, accidents will happen.***

Our linear human cognition is ill-suited for grappling with emergent non-linear systems. Nowhere is this perhaps more true, than in the instance of the largest and most complex social systems of all: national economies and their systems of governance.

Yet, despite the scientific evidence and many historical examples showing that attempts to command and control complexity (economies included) not only leads to suboptimal outcomes

but can actually create enormous concavities all its own… It doesn't ever seem to stop us from trying.

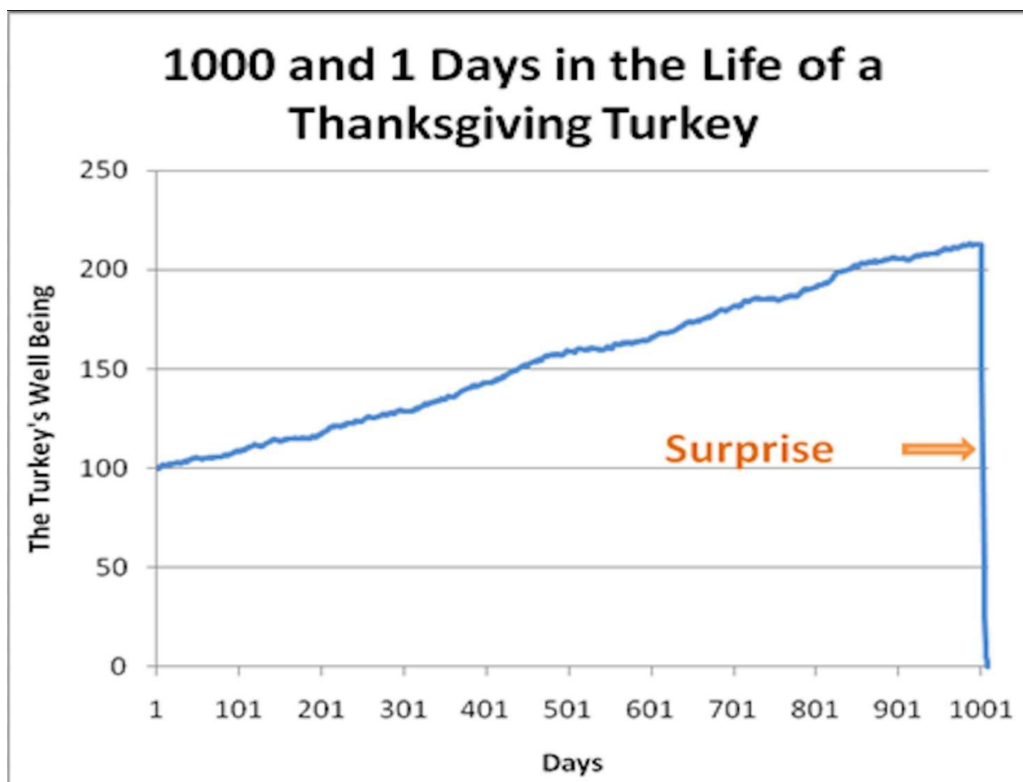
I think a driving reason behind why this is can be explained by Nassim Taleb's Turkey analogy from The Black Swan.

It goes something like this.

Consider a turkey that is fed and cared for everyday by its owners. Every day of the turkey's life he is fed, sheltered, and grows fatter and healthier.

This continuation of positive events reinforces the turkey's belief that he is cared for by his owners and will continue to be so.

This goes on and on, until of course the Wednesday before Thanksgiving rolls around. Then the turkey incurs a rude "revision of belief" and is snapped — quite literally — into what was just a day before, an unimaginable reality. And as Taleb notes, *"Consider that [the turkey's] feeling of safety reached its maximum when the risk was at the highest!"*



You see, the greatest deceiver in complex systems is temporal. It's literally time!

Large complex systems cycle on longer timeframes than the timescale in which popular beliefs and narratives are born and reinforced (ie, home prices can't go down because they've gone up "forever"). Combine this with our instinctual desire to assign cause to effect — even when no actual linkages exist — and you get a lot of turkeys living in complex systems that have never heard of Thanksgiving…

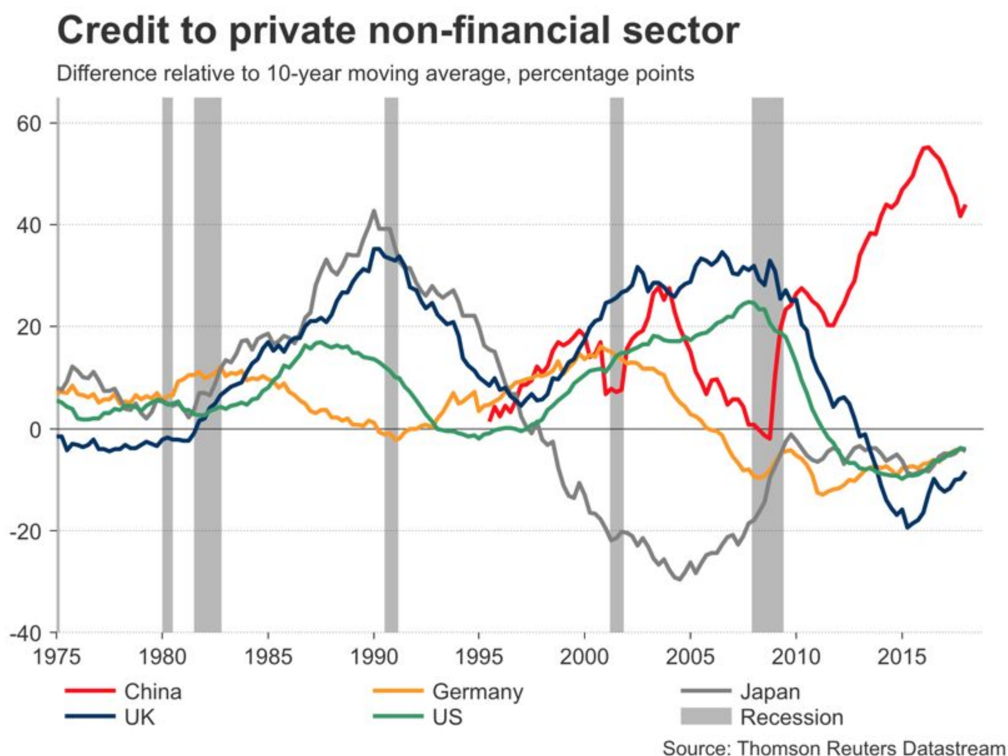
You might be thinking, "why are we talking about complexity and Thanksgiving Turkeys?"

Fair question.

You see… I've been thinking (and writing) a lot about China over the last couple of years. We at MO have long noted that China is THE most important driver of the global economy this cycle. When China sneezes, the world gets pneumonia and when it juices, we all get a boost.

Its incredible debt binge over the last 10-years has propped up global demand and has accounted for **over 50% of GDP growth since the GFC.**

The importance of China's leveraging can be seen in the following chart. It shows credit to the private sector relative to 10-year averages. While the rest of the major global economies have been deleveraging, China has picked up the slack at a pace and scale of credit creation <u>never before seen in history.</u>



Look… We all know that China has a debt problem. A GIANT debt problem. But we all just assume that they'll deal with it and that's it.

But, I've been wondering if there's a major fallacy of presumption that we've collectively adopted, here.

I mean, what if China isn't as resilient as we've all come to believe. What if the Chinese Communist Party and its quasi-free market/command and control Frankenstein economy is really just a fattened turkey. Has time and the lack of volatility in China over the last few decades lulled us into the, perhaps, faulty belief, that the modus operandi there will just continue as is?

Maybe, China's unique mix of communism and semi-free marketism isn't an especially resilient system that's more able to handle downturns and an actual deleveraging, as most assume. Maybe, like the USSR of old, it has an **inherent instability of organization** that not only makes it more fragile to shock but actually **guarantees eventual ruin.**

We're going to explore this question in this month's MIR. We're then going to dive into the data that shows that our "China Deleveraging" thesis is just beginning to pick up steam. We'll then discuss why we're about to go through a market period, not unlike 2015, and perhaps much worse. Then we'll go over how one can position for it. And we'll end with a pitch for a unique Greenblatt style spinoff play.

Let's jump in… And to start, let's turn back to our deadlifting expert on fragility, Nassim Taleb.

Taleb wrote on the sources of fragility in socio-economic systems in a 2015 paper for Foreign Affairs titled *The Calm Before the Storm: Why Volatility Signals Stability, and Vice Versa.* He noted there are five principal sources of fragility, these being:

1. A centralized governing system
2. An undiversified economy
3. Excessive debt and leverage
4. A lack of political variability
5. No history of surviving past shocks

Let's go through each source using China as our example.

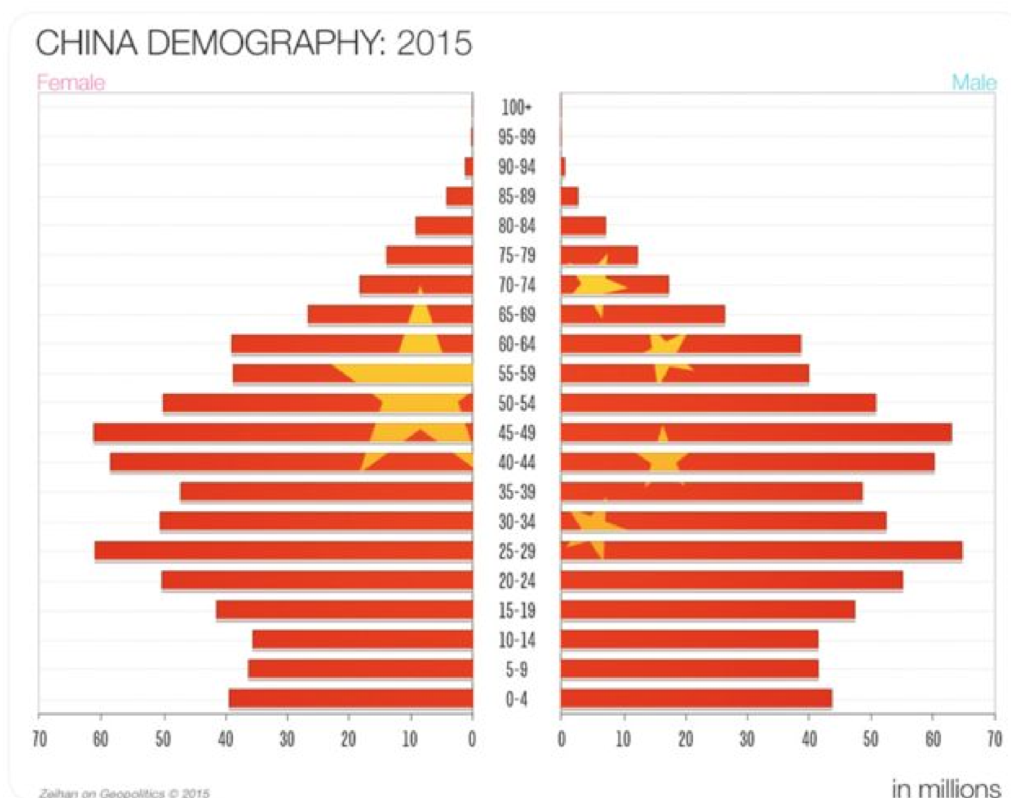
On the first principal source of fragility Taleb writes that (all bolding is emphasis by me) "on its face, centralization seems to make governments more efficient and thus more stable. **But that stability is an illusion.**" Because, "although centralization reduces deviations from the norm, making things appear to run more smoothly, **it magnifies the consequences of those deviations that do occur.**"

Since we're unable to *actually* identify cause and effect in complex systems, we are wont to misattribute the lack of volatility over extended periods of time as evidence of successful control of a system. When in reality, time is the real arbiter of truth and the ax just hasn't fallen yet. Lack of volatility (effect) does not equate to smart governance (cause) in a complex economy.

China is the poster boy for a centralized governing system. Direction flows from the top down and this is only becoming more so, as President Xi Jinping further consolidates power.

We can already see some of the negative consequences facing China that have directly resulted from misguided policy from up top. The most notable being China's infamous "one child policy".

China now has the fastest aging population in the world. As of 2015, China has approximately 7.7 working-age adults to support every elderly citizen. By 2030, that ratio will drop to 4:1. By 2050, just 2:1.



Why is this such a bad thing? Well, the reason is that **China is going to grow old before it ever gets rich**; putting it permanently in the middle-income trap. McMahon writes in his book *China's Great Wall of Debt* that:

> *The middle-income trap is an idea first conceived by World Bank economists who found that, of the 101 developing economies that, in 1960, could be classified as having been "middle income" (that is, they weren't stuck in poverty, but they didn't qualify as developed nations either), only 13 — a group that includes Japan, South Korea, Singapore, Israel, and Ireland — managed to become rich nations by 2008. Many of the other countries who didn't make the cut looked as though they were on track until growth slowed and never recovered. Thailand and Malaysia were lauded as "tiger economies" during the 1990s until the Asian financial crisis struck. Similarly, Brazil and Mexico were once among the fastest-growing economies in the world, but now they seem permanently stuck in the middle-income bracket.*

China's former free speaking Finance Minister Lou Jiwei, laid out the Party's concerns in a 2015 speech, saying:

> *In the next five to ten years, the chance of China sliding into the middle-income trap is extremely high. I put the odds at 50-50. Why don't I feel optimistic? In other countries, this process—of property rights, opening up, allowing the trade of land—took twenty years to evolve, but China, owing to the problem of growing old before growing rich, only has five to ten years to make the adjustments.*

Supporting an aging population means more resources going to healthcare and pensions and less being invested back into the economy. This means slower growth.

The World Bank defines rich nations as having a GDP per capita of $12,475 or higher (rising 2% a year). China's is roughly $8,800. At China's currently stated (though likely inflated) growth rate of 6.5%, they would enter the club of rich nations sometime in the next decade. But if you throttle that growth down to 3% a year, it would then take them around 50 years. And at 2% growth, never.

That math scares Chinese leadership whose social compact with the people is entirely predicated on rapidly improving standards of living. The CCP reversed the One Child policy in 2015, but the damage has already been done...

On the second source of fragility, Taleb notes that "economic concentration can be even more harmful than political centralization." Because concentration "makes a state more vulnerable in the face of random events." And "**even worse is when large state-sponsored or state-friendly enterprises dominate the economy**; these tend to **not only reduce competitiveness but also compound the downside risks of drops in demand** for a particular commodity or product by responding only **slowly and awkwardly to market signals.**"

An economy mired in too much government interference may excel for long periods of time. But ultimately, they are more vulnerable to shocks — random events as Taleb calls them —

because they don't fully benefit from a free emergent price system that efficiently allocates resources (financial, human, and physical). Friedrich Hayek wrote about why exactly this is in his excellent essay *The Use of Knowledge in Society*, saying:

> *The peculiar character of the problem of a rational economic order is determined precisely by the fact that* ***the knowledge of the circumstances of which we must make use never exists in concentrated or integrated form but solely as the dispersed bits of incomplete and frequently contradictory knowledge which all the separate individuals possess.*** *The economic problem of society is thus not merely a problem of how to allocate "given" resources—if "given" is taken to mean given to a single mind which deliberately solves the problem set by these "data." It is rather a problem of how to secure the best use of resources known to any of the members of society, for ends whose relative importance only these individuals know. Or, to put it briefly,* ***it is a problem of the utilization of knowledge which is not given to anyone in its totality.***

China's economy is dominated by state-owned enterprises (SOEs) and local governments that have borrowed billions to construct massive ghost cities and full-scale replicas of the Taj Mahal, Egyptian Sphinx, Eiffel Tower, Niagara Falls and on and on — adhering to the classic Gershenkron model of growth. This has added to China's breakneck GDP growth but the ultimate ROI on many of these projects is… well… questionable.

China says it's now trying to restructure its economy away from one dependent on large construction and exports, to one more reliant on domestic consumption. But doing so is no easy task. It means steel workers being retrained as hair stylist and other such service jobs. Even more importantly, it means the CCP relinquishing more control over the workings of the economy. A prospect that doesn't quite square with Xi's "Made in China 2025" vision.

Highly indebted and highly leveraged is the third source of fragility. Taleb notes that this is perhaps the single most critical source of fragility.

He writes, "Debt issued by a state itself is perhaps the most vicious type of debt, because it doesn't turn into equity; instead, it becomes a permanent burden. Countries cannot easily go bankrupt — which, ironically, is the main reason people lend to them, believing that their investments are safe."

Excessive debt and leverage sit at the heart of nearly all economic collapses. It creates the *perpetually unstable organization of the critical state* as Buchanan noted in his book *Ubiquity: Why Catastrophes Happen*, when he said:

> In this simplified setting of the sandpile, the power law also points to something else: **the surprising conclusion that even the greatest of events have no special or**

> **exceptional causes.** After all, every avalanche large or small starts out the same way, when a single grain falls and makes the pile just slightly too steep at one point. What makes one avalanche much larger than another has nothing to do with its original cause, and nothing to do with some special situation in the pile just before it starts. **Rather, it has to do with the perpetually unstable organization of the critical state, which makes it always possible for the next grain to trigger an avalanche of any size**.

How does China fare here? Well, China accounts for a staggering 63% of the money created globally since 2007.

That's a big pile of debt.

Moving on to the fourth source of fragility, which is a lack of political variability. Taleb writes that "contrary to conventional wisdom, genuinely stable countries experience moderate political changes, continually switching governments and reversing their political orientations." And **"It is political variability that makes democracies less fragile than autocracies**."

The contentious and on the surface, dysfunctional, politics that we put up with here in the US — and many other Western democracies — are actually a healthy sign of a robust system of government. It makes for a lot of political gridlock and not much getting done. But that's not necessarily a bad thing.

China, on the other hand, has no political variability. President Xi is now its leader for life and the regime is becoming ever more authoritarian. It's nationwide security camera network, its "social credit" system", and it's 're-education camps' — which hold over a million ethnic Uighurs — have laid the groundwork for a dystopian future that would make Orwell blush…

The fifth marker of fragility is the lack of a record of surviving big shocks. Taleb writes that "States that have experienced a worst-case scenario in the recent past (say, around the previous two decades) and recovered from it are likely to be more stable than those that haven't." This is because "this marker also involves the idea of "antifragility," the property of gaining from disorder. Shocks to a state are educational, causing them to experience posttraumatic growth."

Kevin Kelly wrote a line in his book that I absolutely love and which applies here. It is:

> ***In turbulence is the preservation of the world.***

Robust systems gain from disorder. This is a basic law of nature. Systems that are not amenable to this rule, eventually fracture.

China has evolved remarkably well since the major shocks of the Maoist period. But that was nearly 40-years ago. A long time. Especially, for a country that so actively whitewashes or all out erases the 'less pleasant' sections of its history. This makes me wonder: how can a system absorb shocks and weather turbulence when it can't even learn from its mistakes?

Antifragile systems benefit from turbulence. These are democracies, market economies, biological systems.

Fragile systems on the other hand, are like teacups. A teacup, Taleb writes, "will not benefit from any form of shock. It wants peace and predictability, something that is not possible in the long run, which is why time is an enemy to the fragile."

Kelly went on to write in *Out of Control* that:

> *The USSR didn't collapse because its economy was strangled by a central command model. Rather it collapsed because **any central-controlled complexity is unstable and inflexible.** Institutions, corporations, factories, organisms, economies, and robots will **all fail to thrive if designed around a central command.***

This seems to be a lesson that we need to learn time and time again. In particular, it appears to be a lesson that China specifically needs to learn because it has failed to do so time and time again throughout its history.

Writing in her 2013 book *China Alone*, one of my favorite China commentators, Anne Stevenson-Yang, notes how China has historically followed 30-year cycles of opening up, growth, and reform only to then about-face, turn inward, and contract. She writes:

> **In reliable thirty-year cycles**, China decided to become a republic in 1919, established the People's Republic in 1949, then did an about-face in its most basic policies and economic practices in 1979.
>
> ...Throughout China's history, a cycle of reform and growth has led inexorably to excessive concentration of resources in the hands of a small elite, followed by a new cycle of contraction, "chaos" and reconstruction. The periods of rebuilding after a crisis have generally been the most creative and hopeful, times like the 1911 Republican period, the first few years after the 1949 Communist takeover, and the Dengist period, to name a few, when China has begun to develop new, grassroots structures for a more pluralistic governance system. Each of these periods of political ferment has been flawed, perilous, and full of promise that the country will successfully navigate its way to a more resilient, balanced, and responsive political system capable of fostering a modern economy.

> China's rise through the 1990s was as glorious as any of the previous dynasties, and **there is a historical symmetry to be found in the nation's coming decline…**

This all begs the question…

Maybe China isn't a Rising Dragon, afterall.

Perhaps, it's just a teacup.

And if it's just a teacup, meaning it's fragile and likely to shatter in the coming slowdown. Then what does that mean going forward?

What will replace the current system? Will the CCP continue its recent trend of becoming ever more authoritarian and tightening its control over the economy — following the country's historical cycle of closing itself off to outsiders, after a period of openness.

What would that mean for geopolitics? Global commodity demand? Or, even better, what would that do to global supply chains?

We can't *know* what's going to happen in China in the coming years. But the market does seem to be either willfully ignorant or just totally complacent to the possibilities; especially considering the historical precedents.

This is something we should all keep front of mind going forward. I keep getting the sense that we're at one of those giant slow turning inflection points in history. The ones you read about in history books and think to yourself "how did people not see that coming, how could they be so blind?".

Let us try and not be so blind…

Coming turbulence...

We've been writing since the beginning of the year that there are two important macro drivers to markets at the moment. These are:

1. China is actively trying to restructure its economy and end its incessant leveraging.
2. A growing issuance of treasury paper, driven by a widening budget deficit and quantitative tightening, is sucking up global liquidity and creating a "crowding out" effect in other markets.

The market seems to be firmly focused on the second driver, the Fed. But, for some reason, still largely ignoring the many blaring warning signs in Chinese economic data — at least for the moment. This data is telling us thay Xi and company are moving along with their stated goal of deleveraging.

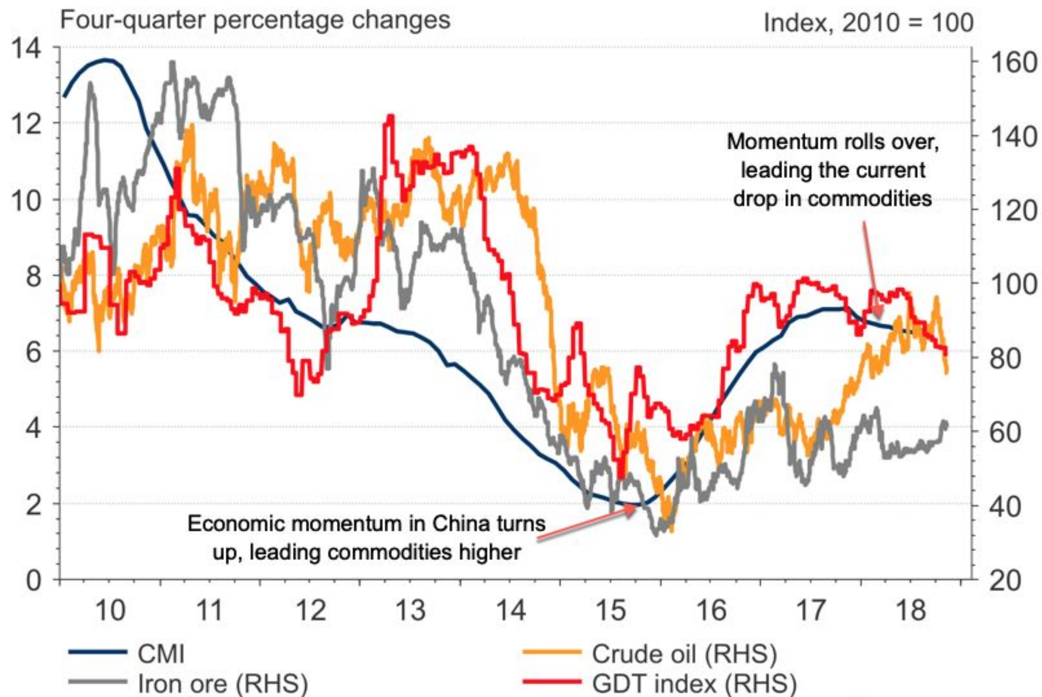
The market appears to be operating on the old assumption that the CCP will just inject lots of credit into the system the moment things get rough. But, as we've been noting the last few months, this isn't going to be the case.

Our baseline needs to be that China will continue to actively deleverage and attempt to reorganize its economy. This will continue to have increasingly profound effects on global markets. We should expect this story to play out until the end of 2019, at the earliest. That's when the CCP is likely to reverse course and juice its economy so it can be strong in time for the Party's centennial anniversary in 2021.

Let's look at the charts.

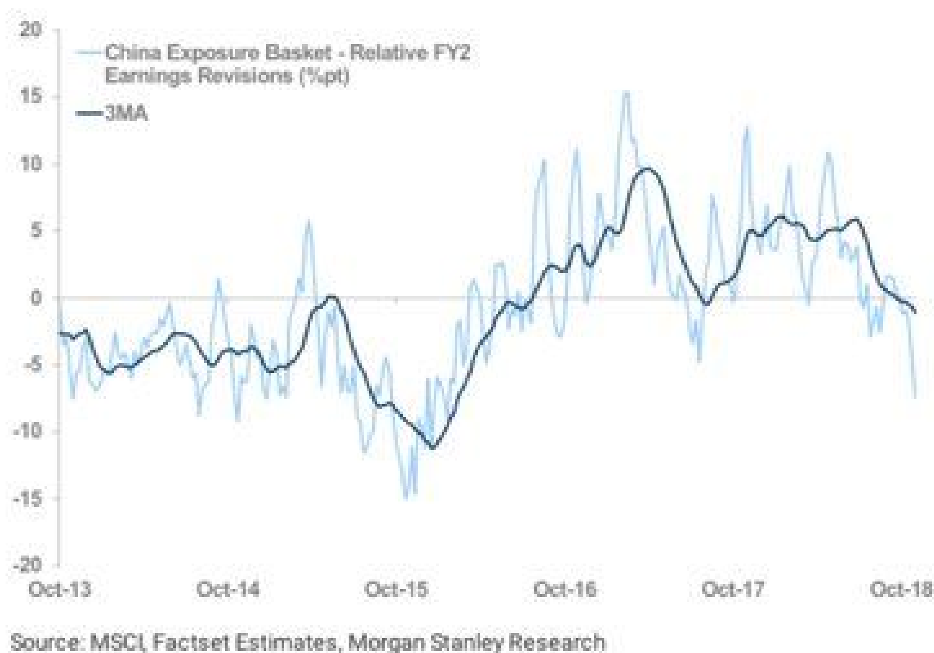
The YoY change in the Global Manufacturing PMI has turned negative for the first time since 2015, bringing global equities lower with it.

Fathom Consulting's Chinese economic momentum indicator (blue line), which has a positive leading correlation to commodities, has turned over and is heading lower. If you were wondering why crude oil prices have collapsed recently, this is one of the reasons…



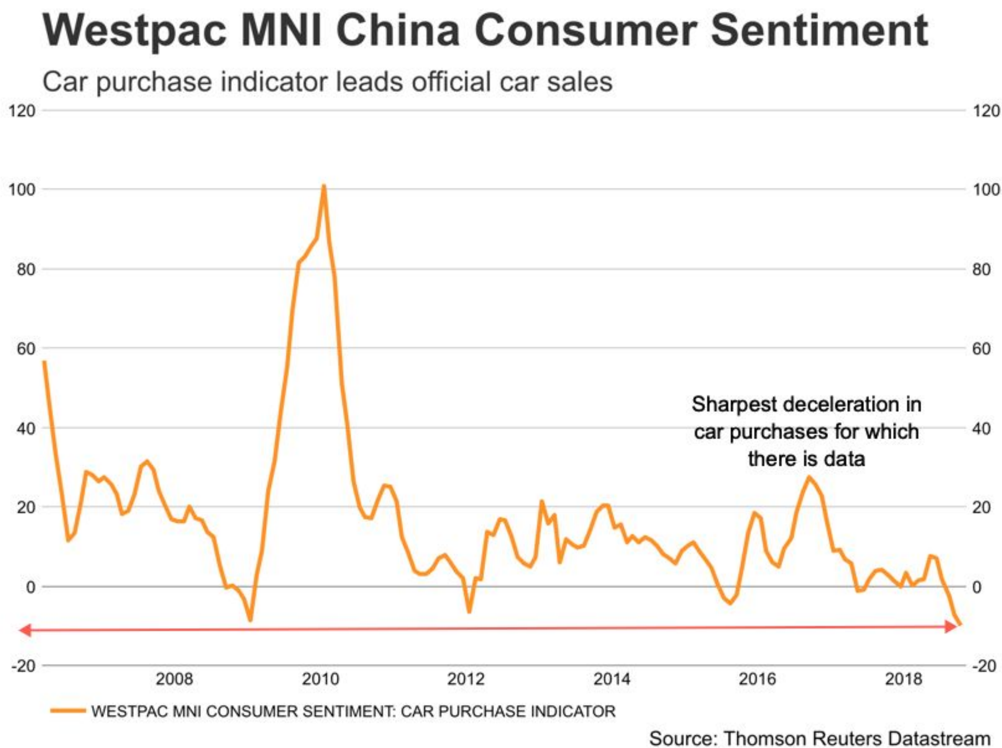
China's economy is largely dependent on exports. Well, it's Export Orders Index recently fell to its lowest readings since 2015.

Earnings momentum in China has turned negative and is now at its lowest levels since 2015.



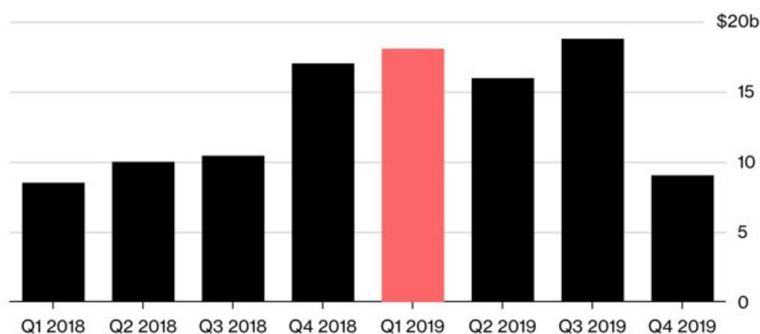
M1 money supply growth is at its lowest levels since… you guessed it, 2015.

There are increasing signs of deteriorating consumer sentiment and spending.



This slowdown is already being sniffed out by investors in US stocks with high exposure to China. Below is a chart that aggregates the return performance relative to the S&P of the 10 US companies with the highest exposure to China as a percentage of revenues. We can see that these companies have experienced massive underperformance as of late — similar to the years from 14' to 16'. We should expect this trend to continue.

Bloomberg recently noted that borrowing costs for China's high-yield issuers (most of whom are real estate developers) have doubled this year, and now sit at their highest levels in over four years. In addition, the property sector faces **a record $18 billion in maturities coming due next quarter**. And according to Bloomberg, "that number is expected to double if investors demand early repayment on some of these notes."



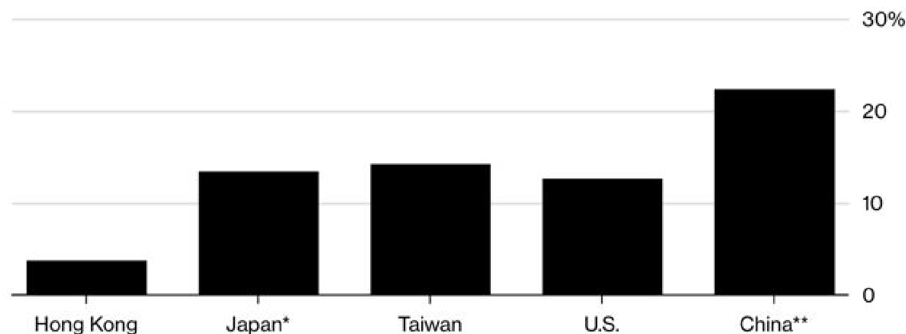
One gets the sense that "the most important asset class in the world", as Jim Chanos (and your author) refers to China's property market, is about to get interesting.

Again via Bloomberg, "soon-to-be-published research will show roughly **22 percent of China's urban housing stock is unoccupied**, according to Professor Gan Li, who runs the main nationwide study. That adds up to more than 50 million empty homes, he said."

The chart below shows just how extraordinary this is. Nearly everything in China, household wealth, business income, loan collateral etc… is directly linked to the property market — a market which has been used as the primary source of speculation by the masses for the last 20 years… and one which hasn't been allowed to suffer material losses, ever.

Ticking Time Bomb

China's home vacancy rate overshadows other major economies



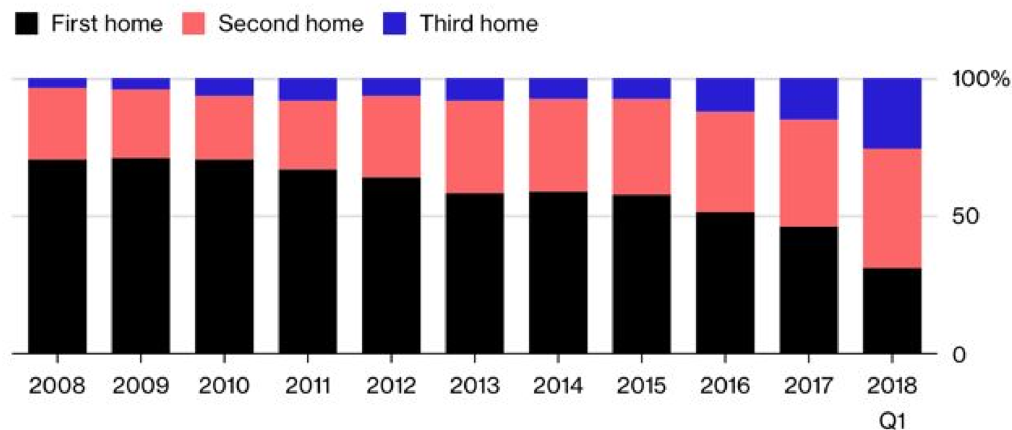
Source: H.K's Rating and Valuation Department, Japan's statistics bureau, Taiwan's Construction and Planning Agency, China Household Finance Survey, U.S. Housing Vacancy Survey

* Japan's figure is for 2013, rest for 2017 ** China's vacant properties include empty homes of migrants seeking work elsewhere.

Chanos estimates that Chinese residential real estate represents somewhere around a quarter of the Chinese economy. **That's roughly $3 trillion dollars or 4% global GDP.**

Imagine the knock-on effects of an unwinding Chinese property market. Just think what that would do to commodities alone…

Xi Jinping made it clear what he wants when he said "houses are for living in, not for speculation." We should probably pay attention.

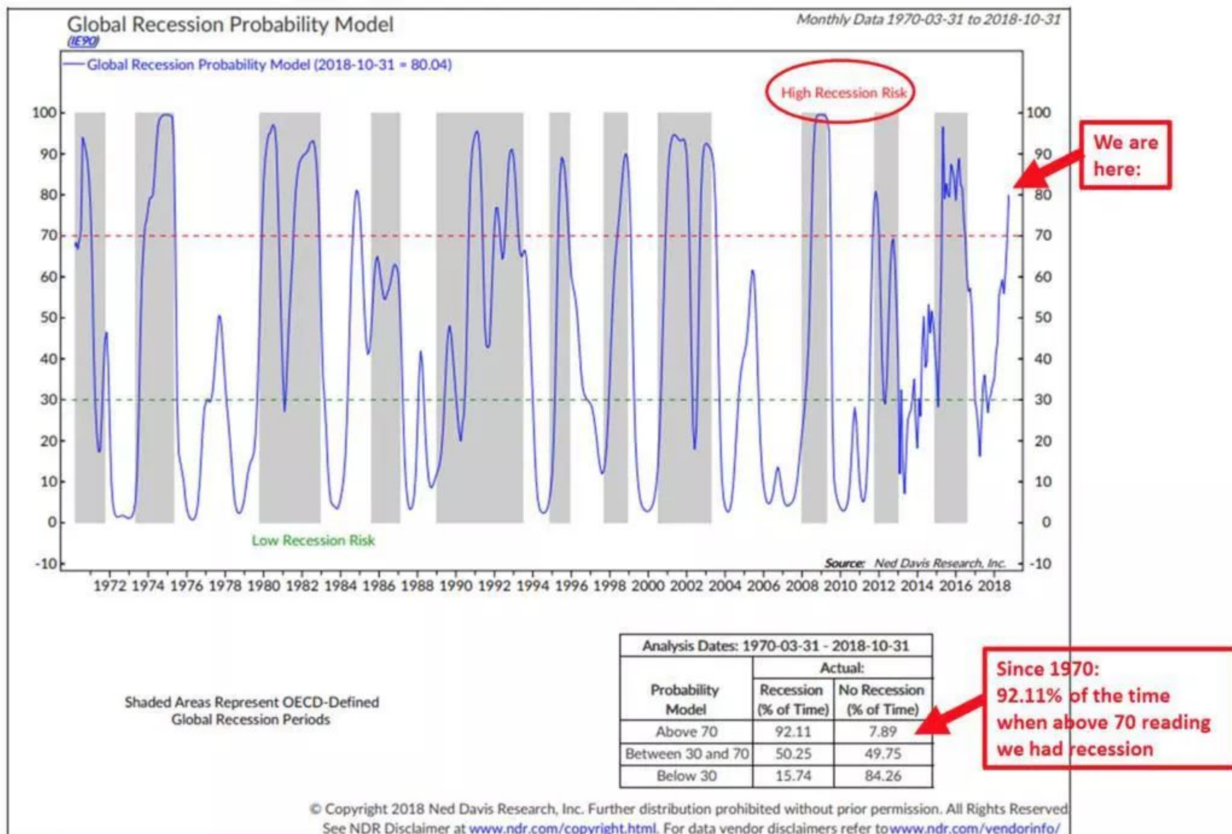


What does all this mean though from a practical investing standpoint?

Well, over the longer-term (next 12-months) we should expect similar macro dynamics to those of 2015, or worse. The last time the Chinese materially delevered.

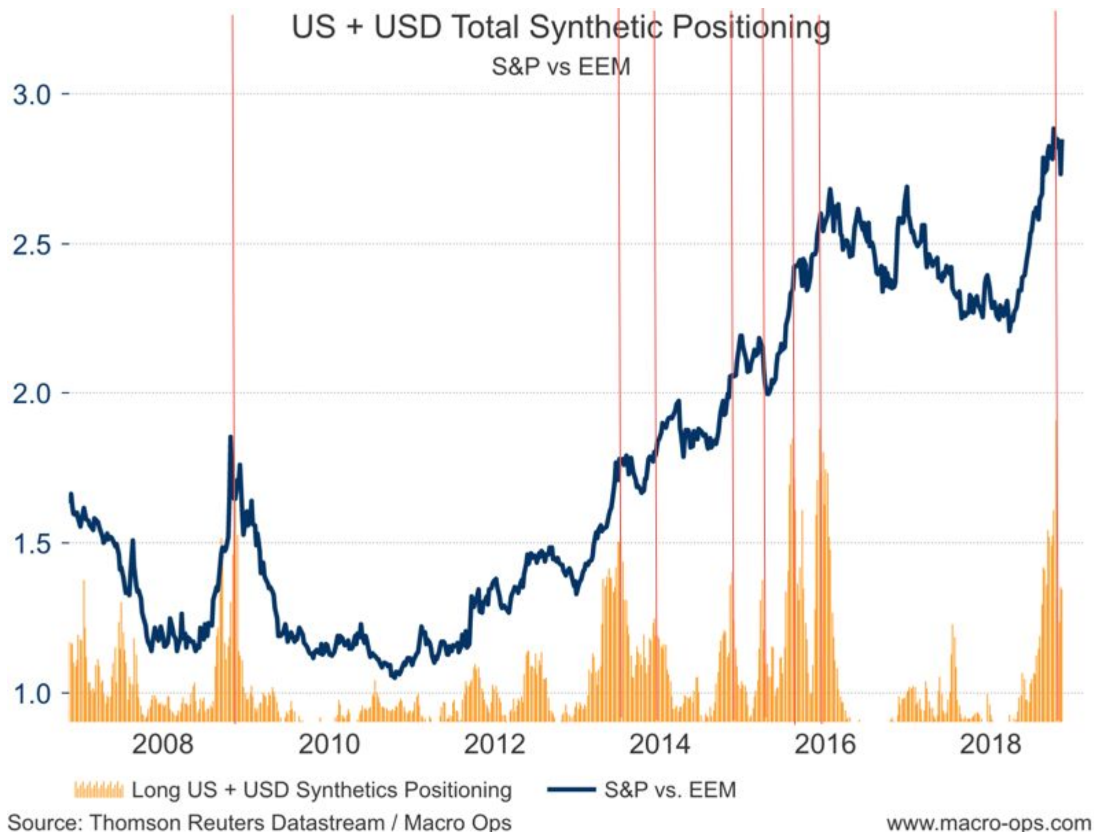
That means slowing global growth and rising deflationary pressures.

I recently showed the below chart from Ned Davis which is signalling an 80% probability of a global recession. And since 1970, when this indicator has given a reading above 70, we've ended up in a recession 92.11% of the time.



There are two main differences though between now and 2015. One is that this time around the US economy is much stronger. Secondly, positioning and sentiment are already fairly bearish on EM assets compared to 2014 when positioning and sentiment were quite the opposite.

Here's a chart I made which aggregates all net speculative long US and USD synthentic positioning (orange bars) along with the S&P 500's performance relative to emerging markets (EEM). You can see that when there's significant spikes in bullish US asset positioning (orange spikes) it often coincides with a near-term top in relative US outperformance.



We recently saw our largest US long positioning spike since early 2016. That means investors are pretty crowded to one side of the boat. It's not going to take much positive EM/China news (maybe hints at a potential trade deal or anticipation of renewed easing etc..) to cause a position unwind.

Whether this performance reversion lasts a week, a couple of months — or happens at all — is anyone's guess. But it's something to keep note of. And we'll just have to follow the tape and play the action as it comes.

We'll consider playing some Chinese and EM names for a swing trade — IF they set up technically. Names like Tencent (TCEHY) and JD.com (JD) which have been obliterated over the last 6-months and are due for a strong bounce. And we're currently long an Argentina bank (GGAL) with a tight stop.

Longer-term, the primary trade is to continue to be selectively long US assets, long USD positions, and short gold. It makes sense to move more money into defensive sectors, like XLP and XLU as well.

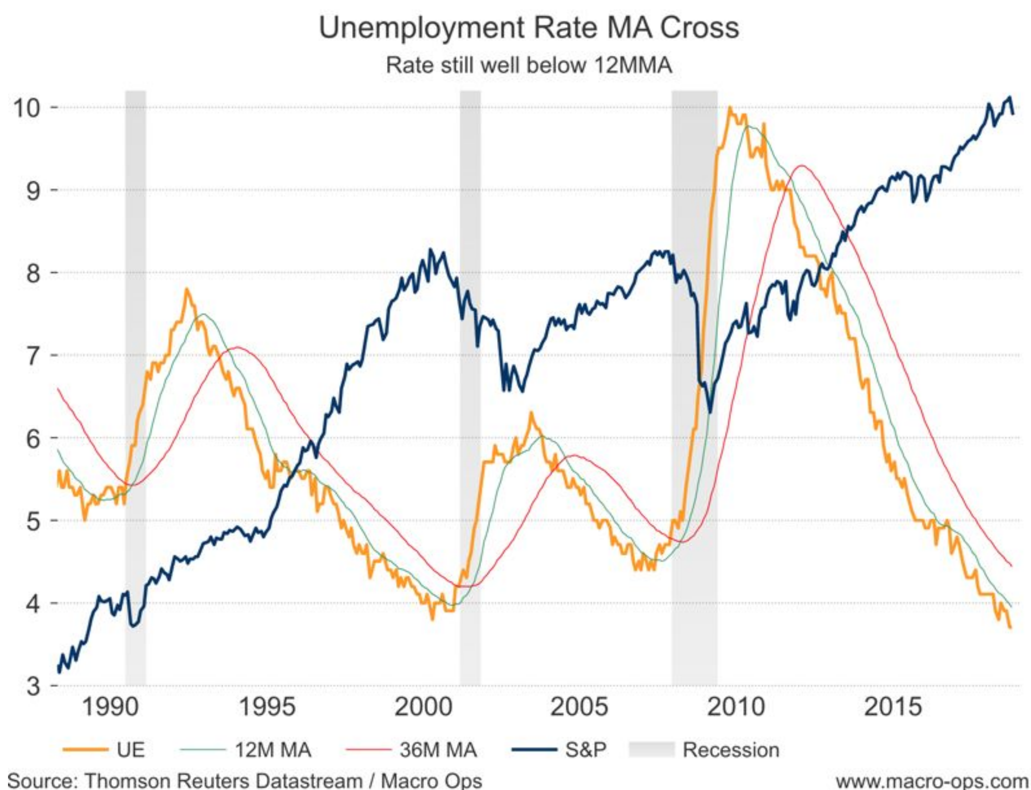
We should expect increasing market volatility in the year ahead and greater dispersion in stock returns (ie, a widening gap between winners and losers).

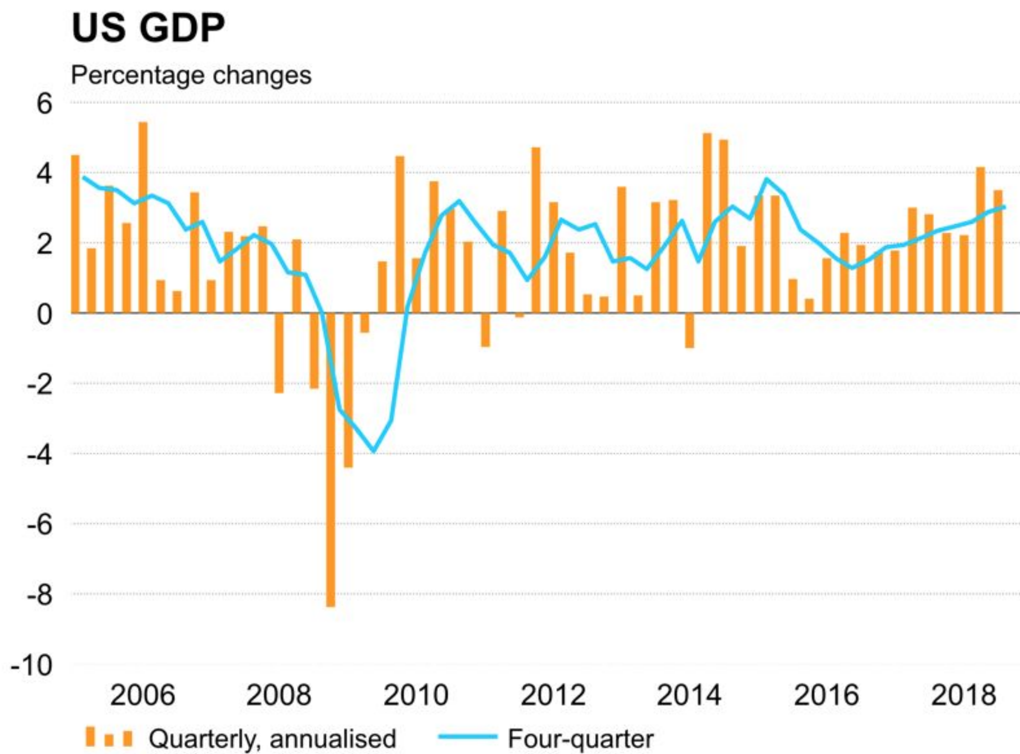
This means we also want to start building up our short book. I was going to include a write-up on our philosophy on shorting, including some stocks we're looking at. But I decided to take it out because the report had become too ungainly. I'll send it out to you all as a separate report instead, sometime in the next week.

A Massive Macro Trade Setup

In contrast to the rest-of-the-world (RoW), the US economy remains incredibly strong.

Annualized quarterly GDP is at a healthy 3.5% and the unemployment rate sits at multi-decade lows of 3.7%; well below its 12 and 36-month moving averages. This along with an LEI that's making new highs and financial conditions that are near cycle lows (meaning, conditions remain extremely easy in the US) suggest that recession in the US is still likely a ways off.

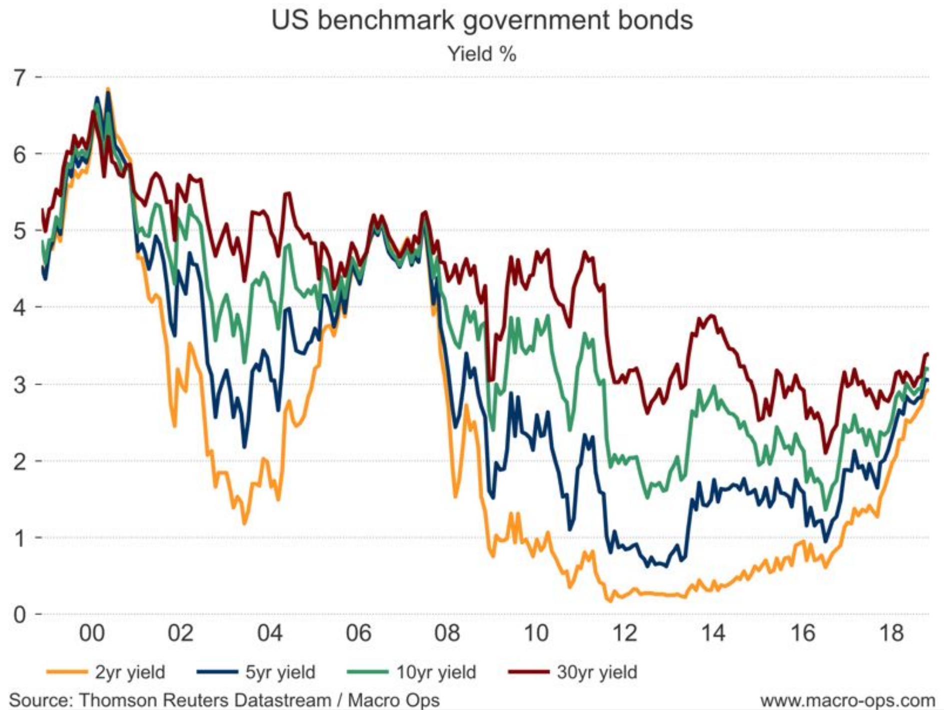




But there are also signs that growth and profits have peaked this cycle and we should expect greater negative surprises going forward.

Peak growth in the US and a high likelihood that the rest of the world is, or is about to, enter recession, sets us up for a great macro trade: buy US long bonds.

The chart below shows that the yield pickup by going further out the curve (ie, buying 10 or 30yr bonds over 2yr bills) is miniscule. Factor in duration risk and it doesn't make much sense to buy 10-years at 3.2% when you can get close to 2.9% parking your money in 2-years and rolling them over.

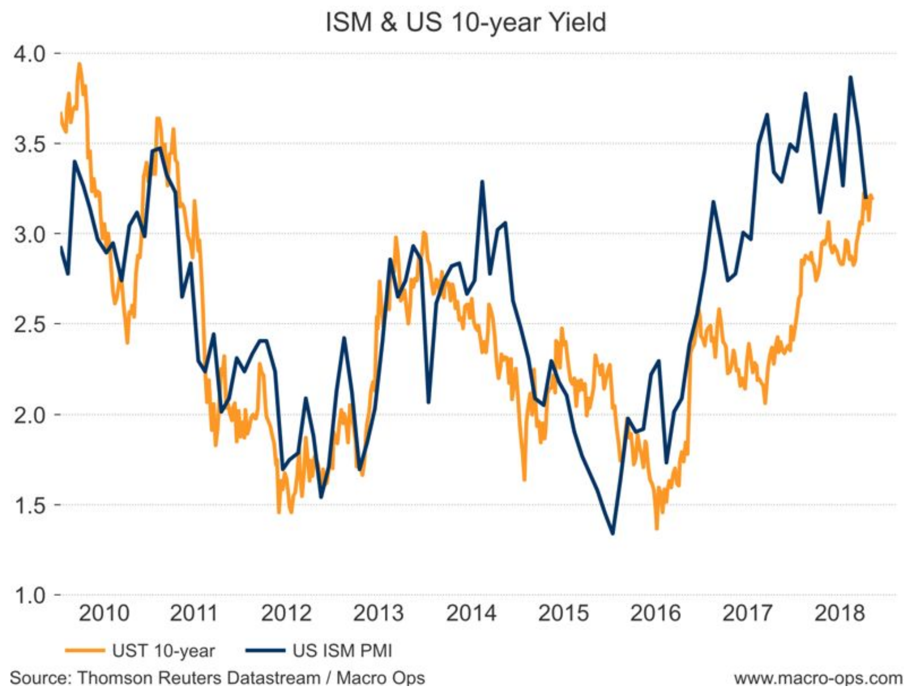


It would only make sense to buy the long end over the front if you were making a directional bet on the US economy and an error in Fed policy. That's what we're doing.

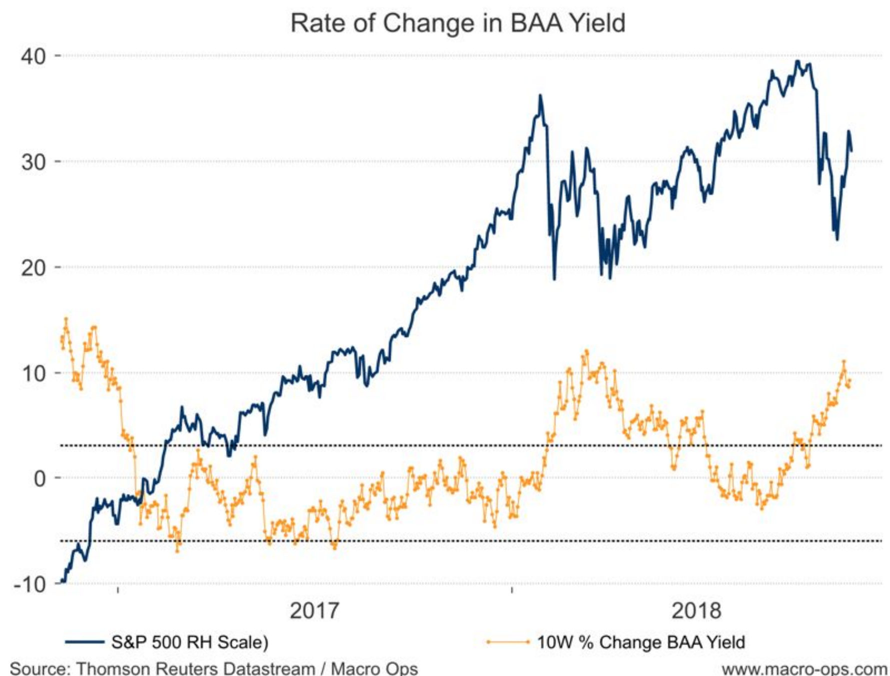
Let's start with where things in the market currently stand.

Bond yields have risen quickly since the beginning of the year.

Yields have been pulled higher by an increasing Treasury supply hitting the market (due to growing budget deficit) and a US economy that's been running hot, which has made for a more hawkish Fed. Note the correlation between the ISM and 10yr yields below; higher ISM = higher yields and vice-versa.

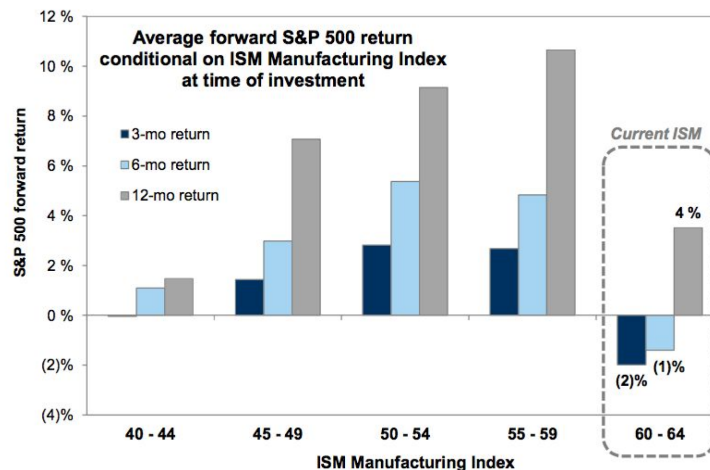


Since bonds compete with equities for capital flows, a high upward rate of change in yields tends to cause dislocations in the equity market as investors rebalance and equity multiples get squeezed.



This is a significant reason why the US stock market has been so volatile since the beginning of the year. The ISM was as high as 61.3 in August.

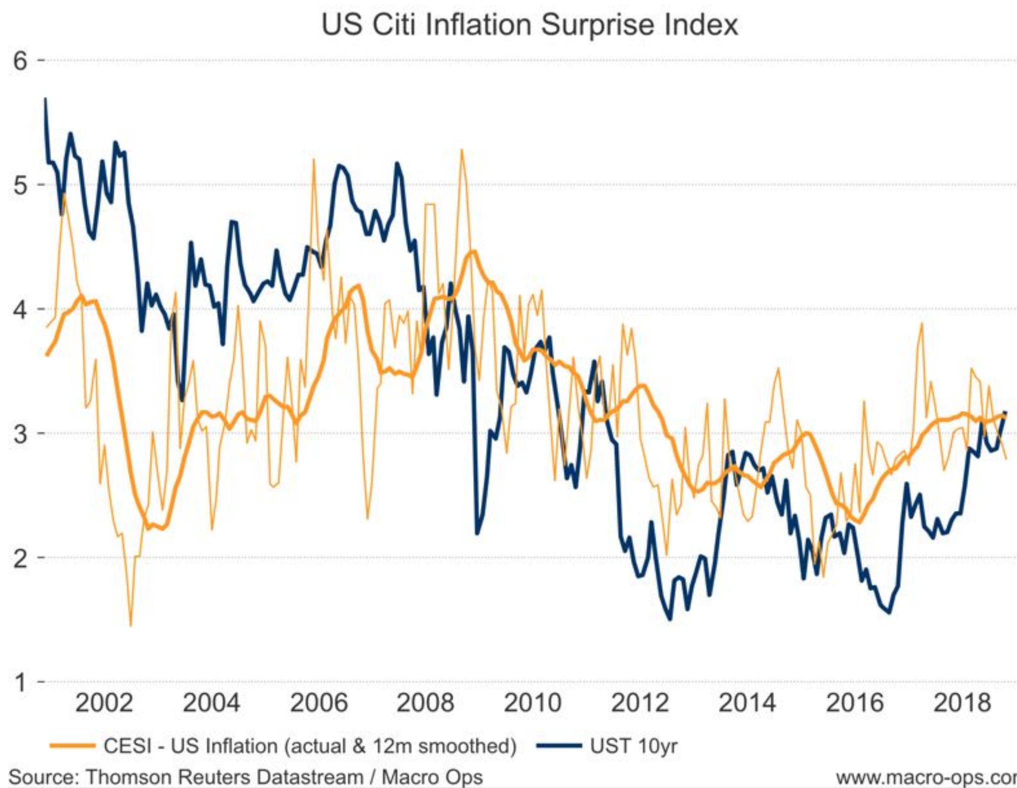
The chart above shows that the ISM rarely goes above 60 and when it does, the S&P has on average gone to produce negative 3 and 6 month returns. Again, this is because strong growth drives interest rates higher which pulls capital from equities, thus increasing market volatility.



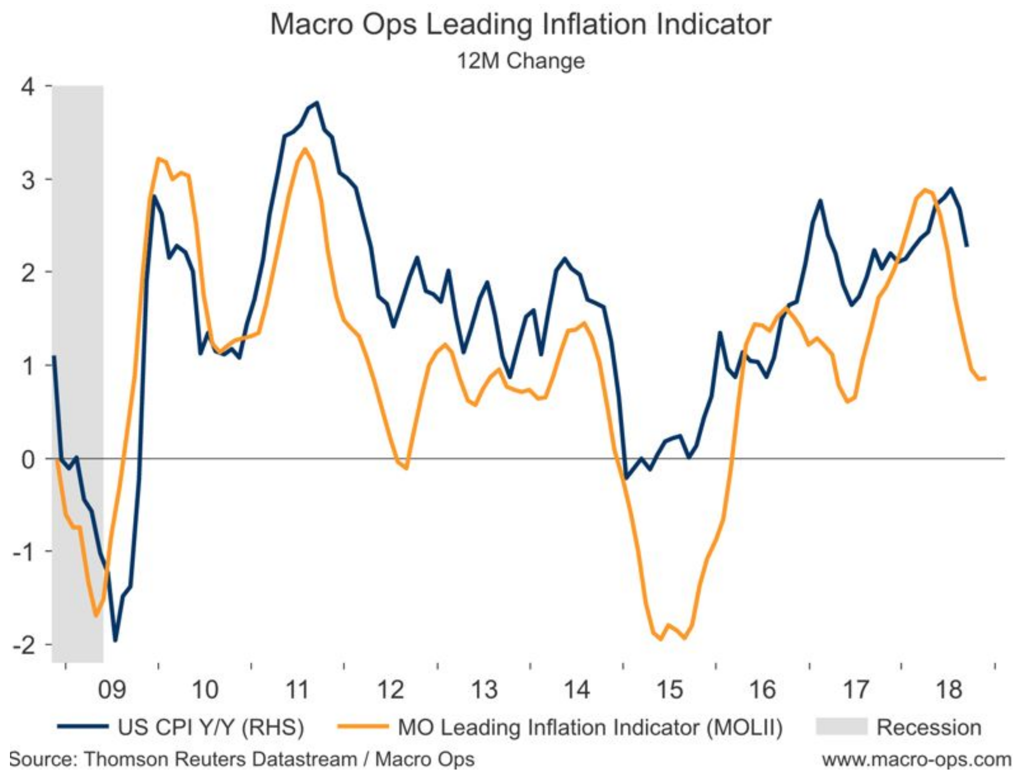
So this is where we're coming from and why yields have been rising so fast. But, like we've been talking about through this whole report, things are about to change…

Growth in the RoW is set to slow significantly and signs indicate it has almost certainly peaked here in the US. The ISM has fallen back below 60 and looks set to decline further.

On the back of slowing growth and falling commodity prices (crude oil for example), we should expect inflation to begin to moderate here in the US. The Citi Inflation Surprise index below shows that inflation surprsises (thin orange line) are beginning to turn more negative.



And our leading inflation indicator (orange line) has dropped significantly since the start of the year.

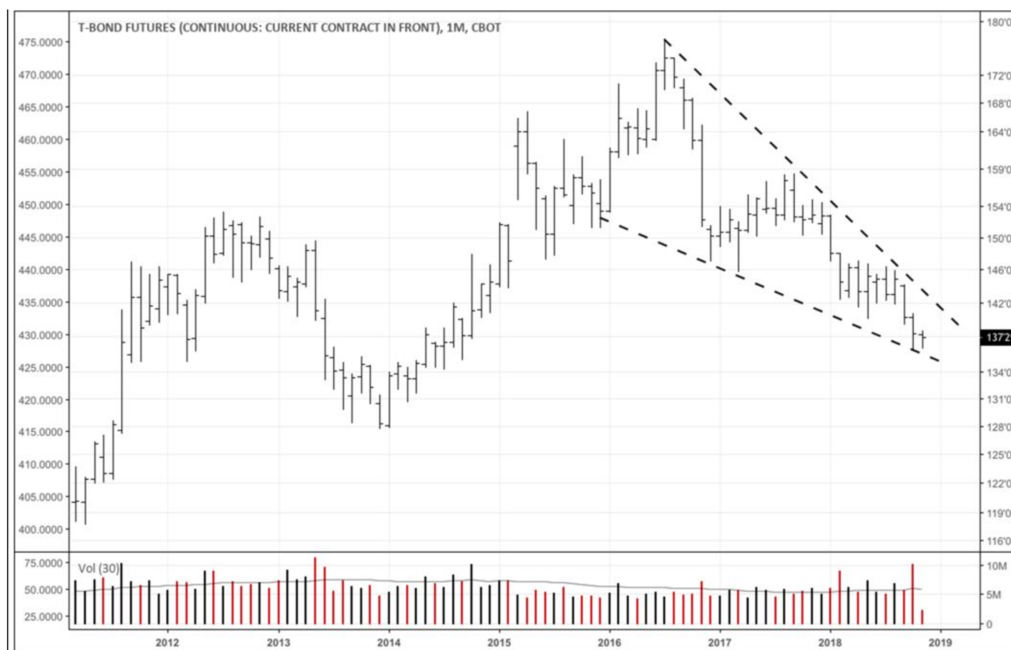


The equity market seems to have already sniffed this out with cyclical versus defensive stocks really starting to underperform (red line), but yields (blue line) have yet to follow suit — so far.

And yet, sentiment and positioning in bonds are fairly bearish (chart via the latest BofAML FMS).

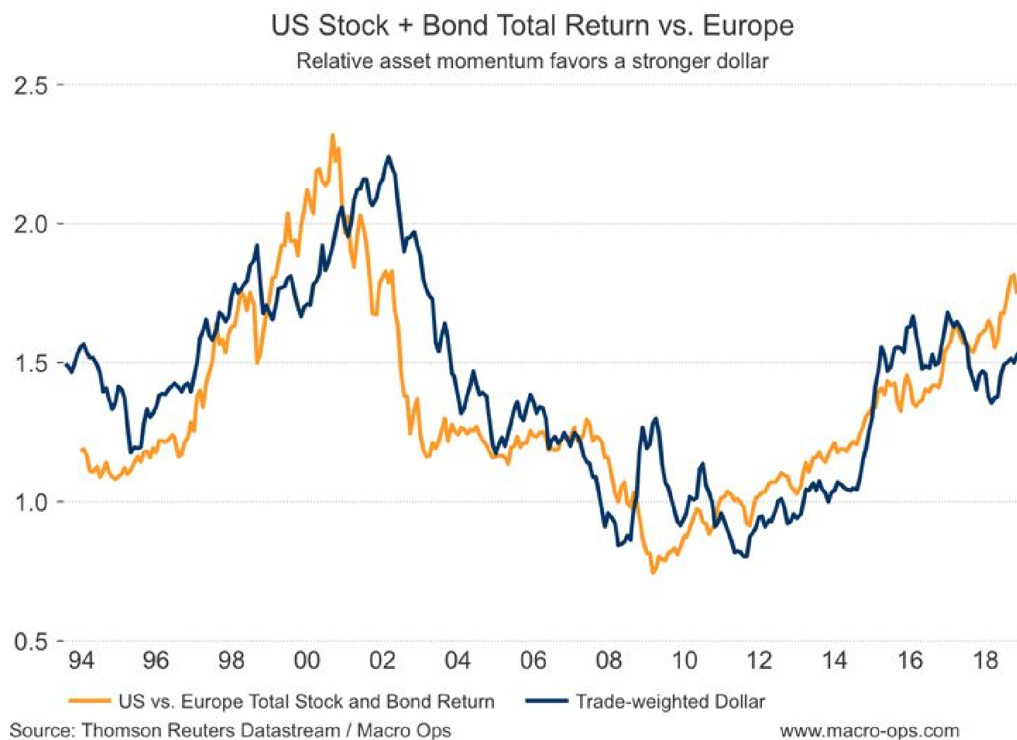
So to sum up, we have declining global growth — a high probability of recession — with peak US growth and profits behinds us. Inflation indicators turning over and heading lower plus bearish sentiment and positioning in bonds.

Combine this with the great technical setup in long bond futures and you have the makings for a great macro trade. The chart below is a monthly and shows bonds getting squeezed in a 2-year long descending wedge. Setups like this often lead to explosive upside moves.

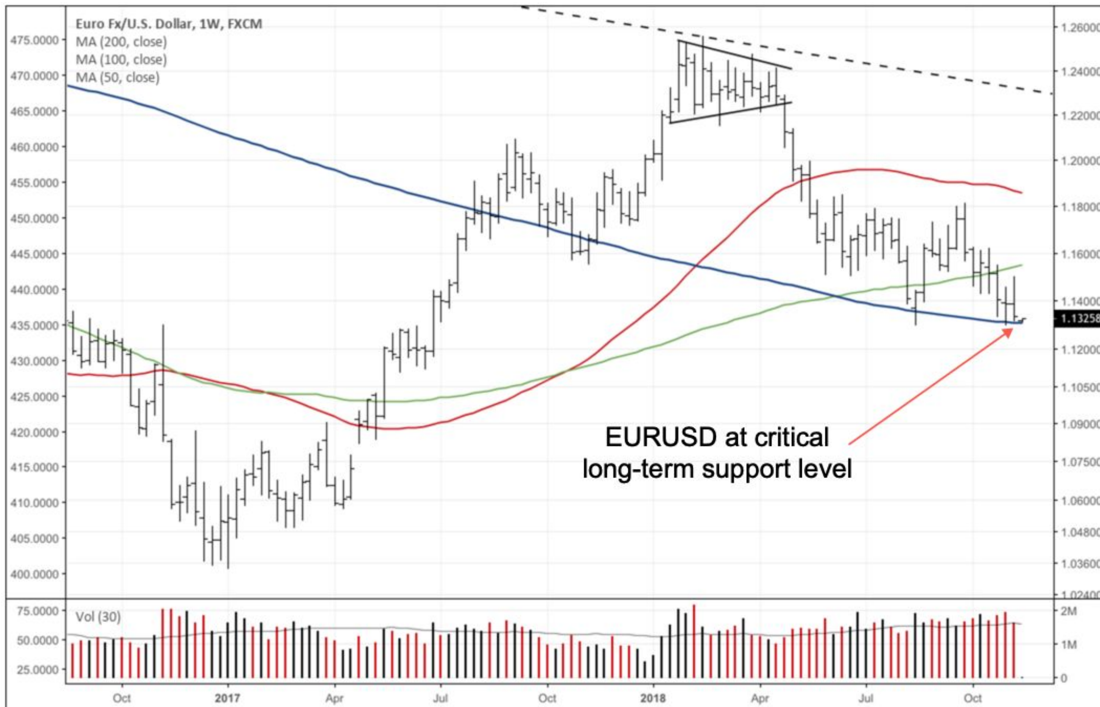


Still Short Gold and Long Dollar

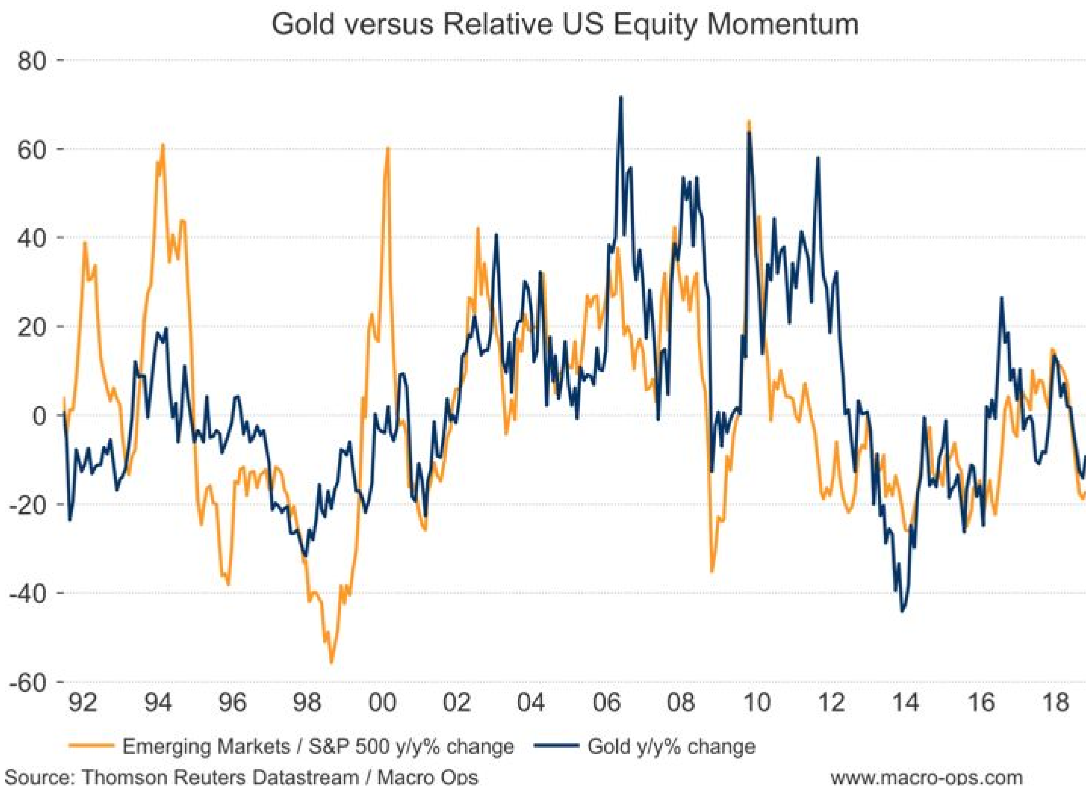
The long-term trend in the dollar remains up. The trade weighted dollar (DXY) is comprised of roughly 60% EURUSD. That's why when analyzing the direction of USD, you have to look at the total relative return and speculative flows between the US and Europe. This chart still has the dollar clearly heading higher longer-term.



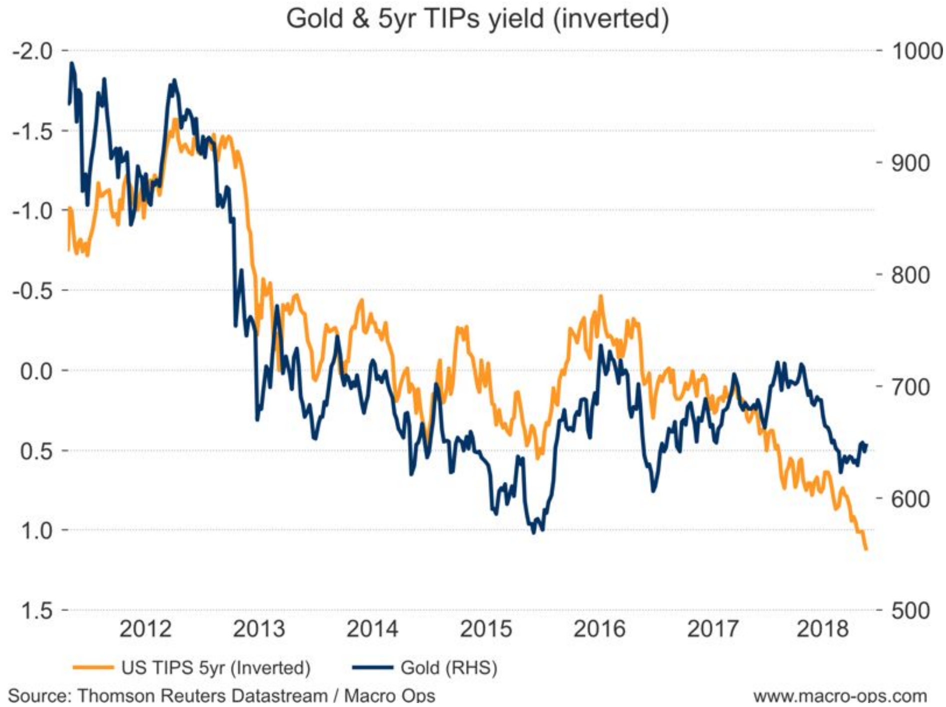
But… over the short-term, EURUSD is bumping up against significant support in its 200-weekly moving average (blue line). Like EM, sentiment is also pretty bearish on Europe. This raises the odds that we'll see a bounce in EURUSD (drop in DXY) in the coming weeks — keep an eye on this level.



A drop in the dollar should also coincide with EM outperformance which would pull gold higher.



But with the Fed set to continue hiking rates and a deflationary wave coming out of China, the long-term outlook for Gold continues to be ugly.



So even though gold may rally sometime in the next few weeks our long-term price target is still $1,000/oz on the yellow metal.

Micro: Garrett Motion (GTX)

A Spin-off in The Auto Parts Industry ... What's (Not) To Like?

> *The following writeup on GTX is done by an investor I often collaborate with. He's one of the best value investors I know. For compliance reasons, he will remain nameless. But the following is one of his investments that he is most excited about. I like the thesis myself. And while I think this stock could continue to get pulled lower by broader negative sentiment on cyclicals over the short run. The longer-term opportunity at current prices — and even more so if the stock does move lower from here — is compelling.*

Garrett Motion (GTX) is the newly spun-off company from its parent, Honeywell, Inc. The company designs, manufactures and sells turbochargers/electric-boosting engines and engine technologies to Original Equipment Manufacturers (OEMs), as well as aftermarket suppliers. GTX is a global leader in technologically advanced turbos and boosters, delivering products across gasoline, diesel, natural gas and electric power-trains, hitting every market from small cars to commercial.

The company is massively mispriced by the market for reasons unrelated to its business operations.

Forced selling resulting from the recent spin-off, China trade war concerns, and a large (but misleading) liability item on the balance sheet have driven its stock lower, offering investors a chance to buy a good business at a great price.

The company generates significant cash flow, flexes an industry leading supply chain manufacturing process, and institutes an incredibly lean capital cost structure. Deep relationships with its customers and OEM's spanning three decades creates a wide moat. And its 1,000+ patents help entrench the durable competitive advantages it has over competitors.

Reasons for the Spin-Off

According to GTX's Form 10, Honeywell decided to spin off the turbocharger manufacturer for the following reasons:

1. Enhanced Focus & Simplified Organizational Structure
2. Distinct and Compelling Investment Cases
3. Performance Incentives

Enhanced Focus & Simplified Organizational Structure

In most spin-offs, this reason will be at the top of the list. Considering Honeywell is a giant conglomerate of various independent businesses, splitting up their turbocharger business gives both Honeywell and Garrett the option to reallocate time, capital, and resources into doing what's best for each specific business.

Distinct & Compelling Investment Cases

By spinning off the turbocharger business, Honeywell gives its investors a much clearer picture of which company they ultimately want to invest with. They can choose to keep Garrett Motion along with their Honeywell shares, or they can dump Garrett Motion all together.

Performance Incentives

When looking into spin-offs it's important to look at the incentive structure for the newly minted management. I want to see management incentives that are properly aligned with shareholders and the success of the business.

CEO Oliver Rabiller will start with a base salary of $891k and an annual cash incentive target opportunity equal to 100% of his annual cash base salary. Mr. Rabiller is eligible for this incentive should the company hit various earnings goals throughout the year. Along with the cash bonus, Rabiller is eligible for an annual grant of stock options with an initial target opportunity of 325% of base salary. These stock options are contingent upon increased business performance. CFO Alessandro Gili is also incentivized well, receiving an annual salary of $524k, cash bonus equal to 75% of salary, as well as annual grant of GTX restricted stock valued up to $1.48M.

In other words, management's real payout will come from improving performance in the underlying business. If Garrett hits appropriate targets then management could receive upwards of 400% of their annual base salary.

Not a bad incentive!

The Main Drivers of Business Performance

Deep Relationships with Customers & Top Quality Products

The company has top-notch global management, a comprehensive portfolio of products and long-term relationships with OEM's. Garrett leads (or is tied as a leader) in the following product spaces: light vehicle gas, light vehicle diesel, commercial vehicles, and e-boosting. This is seen

through the tremendous length of commitments it has with its customers. Here's a list of just some of these relationships:

These long-term relationships translate into high competitive barriers. If you go through the life-cycle of a relationship between the engine maker and its customer, you start to realize the immense switching costs that would be incurred should a customer leave its supplier. Garrett captures customers in all stages of a product life cycle: Pre-Development, Product Development, Vehicle Production, and Aftermarket.

Industry Leading Supply Chain Management

Another strength for Garrett is its Supply Chain Management, sporting 13 state-of-the-art facilities around the globe, 75% of which are in high growth regions. Due to their advantages, Garrett is able to churn out over 50,000 turbocharger engines *per day.* That's 40 turbo engines every *minute*. So how exactly is Garrett able to produce such high amounts of turbos? The answer lies in their highly differentiated manufacturing process and low-cost operating model.

Differentiated Internal Technology & Lower Cost Operations

GTX touts industry firsts for high-speed electron-beam and laser welding. This proprietary technology enables it to test and approve engine parts quicker and with greater accuracy. The company also leverages its supply base, sourcing a little over 80% of its costs from suppliers. The company invests in its products with the goal of building more and more parts in-house instead of reaching out to suppliers. Garrett remains the only turbocharger engine manufacturer to operate a high grade wheel foundry.

The company spends an average of 3% of revenues on capital expenditures, and expects to continue that range between 2-3% over the next five years.

GTX increased its variable costs (as a percent of total cost structure) from 67% to 80% today. This is important because it gives GTX flexibility to support its business operations through troughs in the business cycle. The company has shifted its cost supply from 45% in low-cost countries to close to 70% today. The costs are split between three areas: 56% in EMEA, 15% in the Americas, and 27% in Asia. Finally, the company was able to increase its working capital turns from 12x to 20x.

82% of Garrett's operating costs are in cost of goods sold. SG&A comes in around 7.5%, and R&D plus other expenses fill out the remaining 10%.

Such high levels of operating costs coming from cost of goods sold can present both an opportunity and a risk. If the company is able to negotiate on its cost of goods sold (get to the first principles of how it manufactures), it could add significant incremental margin power. However, if most of its cost of goods sold is commoditized products, changes in natural resources could have a detrimental impact on revenues and margins.

These strengths give Garrett a competitive advantage. First, its *highly* variable cost structure enables the business to adapt and shift spending during down periods in the business cycle. Second, the company doesn't have any large-scale restructuring programs in the near future. Finally, Garrett has low working capital needs, giving it incremental cash generation to reinvest back into the business.

The Financials

Breaking Down Revenues

Garrett generated roughly $3.1B in revenues in 2017. Light vehicle products accounted for 80% of revenues with the remaining 20% coming from commercial vehicles (such as construction, agriculture and power-generation machines). Out of that $3.1B, 88% of sales come from sales to OEM (Original Equipment Manufactures) and the remaining 12% from the global aftermarket. The company diversifies their revenues well: 52% from Europe, 30% from Asia, 10% from the US, and 8% in other regions.

The company has strong revenue bookings going into 2018 and beyond. Near-term revenues are close to 100% booked. **When Garrett looks out to 2020, 87% of their revenue is already booked.** Looking further out to 2022, the company has already contracted **63% of its future production.**

Where Is Future Growth Coming From?

Future revenues are supported by the expected growth rate in turbocharger engine adoption across regions. North American penetration is projected to grow 16% by 2022. South American penetration is expected to grow 26% by 2022 and Chinese penetration is expected to increase from 47% to 70% by 2022. The company is projecting organic revenue growth to the tune of 4-6% a year going forward.

Along with the uptrend in their core line of business, the company is projecting new growth from areas such as E-Boosting and Connected Vehicles. Revenues in this category rose 16% from 2016 - 2017 and will likely continue that trend in 2018-2022.

Garrett has been producing these E-compressors since 2016 and is currently engaged in more than 10 projects with its OEM's. Connected Vehicles consists of cyber-security and integrated vehicle health management. The company is also expected to be the first to market on a first-of-its-kind completely electric turbo engine.

Variant Perception - Why The Opportunity Exists

Forced Selling

There are two main reasons why this opportunity exists: Forced selling due to the spin-off and misleading liability on the balance sheet.

Let's start with forced selling.

With any spin-off, there are going to be new shareholders that either don't or can't (due to mandates) hold onto the shares of the spun-off business.

When there is forced selling in the market, opportunities arise for the diligent investor — this is Joel Greenblatt strategy 101.

Misleading Liability on Balance Sheet

Honeywell and Garrett Motion entered into a Indemnification Obligation for liabilities related to the Bendix Asbestos incident going back to the 1920's. Why create this Indemnity Agreement? Creating an Indemnity Agreement frees up liabilities for Honeywell on its balance sheet, at least on paper.

However, Honeywell will retain the legal obligation related to the liability, as well as managing claims and administrative processes. This means that Garrett is responsible for paying annually while **not transferring the actual legal liability to the company.** If the company continues to pay the $175M payment annually, the asbestos liability will be off the balance sheet by 2025.

Because of this, Garrett doesn't screen well. On paper it looks like it has a tremendous amount of debt, to the tune of $1.36B. But in actuality, **this $1.36B liability is really just the annual expense of up to a maximum of $175MM.**

So what's the effect of the Indemnity Obligation on earnings? Let's take a look at the breakdown from 2015 - 2016, 2016 - 2017, and the first half of 2017-18.

In 2015-16, before the Indemnity Obligation the company generated $526MM in EBITDA. Backing out the $175MM leaves us with $351MM in EBITDA, or an 11.7% EBITDA margin. In 2016-17 the company generated pre-indemnity obligation EBITDA of $623MM. Backing out the

obligation leaves us with $448MM, or 14.5% EBITDA margin. Finally, for the most recent first half comparing '17 to '18, the company generated $372MM pre-obligation and $284MM post-obligation for a 16% EBITDA margin. Even with the obligation payment, the company maintains industry averages in margins.

Back-of-Envelope Valuation (Intrinsic & Relative)

Bear Case: -5% CAGR EBITDA Growth ... Losing Market Share & Margin Shrinking

For this valuation we're going to assume -5% annual EBITDA growth. This would mean that 2022 EBITDA comes in at $442MM. After adding back D&A (historically ~10% of EBITDA), net working capital, and capital expenditures (around 18% of EBITDA) we're left with 2022 unlevered FCF of $164MM. Assuming a long term growth rate of 3% into perpetuity, we generate a terminal value in 2022 of $2,251M. Finally, we arrive at an Enterprise Value of $2,003M, giving us an EV/EBITDA of 4.87x.

Peers are trade at an average EV/EBITDA multiple of 6.2x. Assuming over the long-term that GTX will trade in line with peers, equity value per share comes out to roughly $11.30/share, or a ~15% downside from current prices.

Bull Case: 4% CAGR EBITDA Growth

The company is estimating $640M in EBITDA for 2018, $601M in 2019 and $605M in 2020. If we assume 5% growth for the remaining two years we're left with a 5 year average growth rate of 4% and a 2022 EBITDA of $667M. Subtracting taxes, adding back D&A and changes in NWC minus CapEx, leaves us with $296M in 2022 unlevered FCF. Keeping long-term growth rates steady we get a terminal FCF value in 2022 of $4,276M and an enterprise value of $3,390M, or 5.08x EV/EBITDA.

In this scenario we're going to assume GTX is able to pay down its debt a bit faster, reducing its net-debt level to $1,261M. Applying our EV/EBITDA competitor multiple of 6.2x gets us an Enterprise Value of $3,603M and equity per share value of around $30, **representing a potential upside of 130% from current levels.**

Risks

There are many risks with this investment. The Auto parts industry is cyclical, the shift towards electric vehicles puts downward pressure on gasoline and diesel sales, and OEMs try to penny pinch manufacturers, straining margin expansion. Many auto parts makers claim that they have the leanest cost structure, the highest variable cost model, etc. It will be important to see how well Garrett can maintain its cost structure during the next downturn. Also, failure by the

company to reduce its leverage (current target leverage rate of 2x) could increase interest expense in a rising rate environment.

Looking beyond the next five years, the competitive advantage will go to the company that can adapt and benefit from hybrid and electric engine penetration. If Garrett fails to be the leader in the hybrid / electrical engine space, it could significantly damage future growth prospects as the runway for growth transitions from gasoline & diesel to electric and hybrid.

Wrapping It Up

Garrett is off the beaten path. It's a spin-off in a cyclical industry with a misleading liability making it appear incredibly debt ridden. Forced selling has created a fantastic opportunity to buy shares of a business trading at a significant discount to its peers. In GTX investors are given a company that has strong management with good incentives, industry-leading technology, dependable contracted revenues, and deep long-term customer relationships, creating a sizable competitive advantage. At current prices, the patient investor can sit in this stock that has a wide margin of safety and significant upside.

That’s it for this month’s report!

Thanks for reading and shoot any questions you may have to me at alex@macro-ops.com

Also, I’d like to wish a Happy Veteran’s Day to all of our US readers. If you get a chance, make sure to thank those who are serving currently and have served in the past.

Your Macro Operator,

Alex