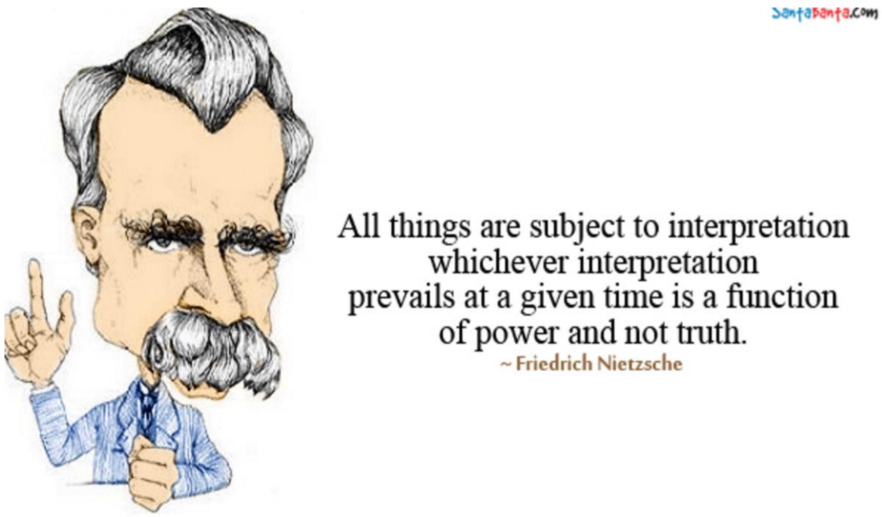
Market Brief – Beauty Contests and Impotency



Well said Nietzsche, it's a shame you went mad… you sure made a lot of sense.

Truth, reality, and markets have been on my mind. Particularly, the intersection at which they all meet and how we, as market participants, are essential players in this T-R-M trifecta.

Don't worry, I'm not going to get stupid-meta here and talk about a bunch of existential nonsense.

Buuuut... I am going to talk about some very fundamental truths about the reality of markets and then we'll apply that to what's going on today.

Let's kick this party off with some wisdom from the founder of modern economics himself; Mr. Lord Keynes.

Keynes, ever the deep thinker, knew that markets were anything but rational and efficient — as the popular Efficient Market Hypothesis (EMH) now claims. He was too aware of our human nature and particularly the nature of those who drove markets; the people of wealth, the men of industry and managers of money.

He knew that far from being prudent, these people were prone to irrational exuberance and herd-like behavior. Keynes was the first to codify the truth about the risks of being a contrarian when he said, "worldly wisdom teaches that it is better for reputation to fail conventionally than to succeed unconventionally."

Since he understood the nature of man, he understood the nature of markets better than most and made a sizable fortune because of it.

And there is probably no better analogy on the game of successful market speculation than Keynes' "Beauty Contest."

Keynes likened profitable investing to a common newspaper game of the time,

"*in which the competitors have to pick out the six prettiest faces from 100 photographs, the prize being awarded to the competitor whose choice most nearly corresponds to the average preferences of the competitors as a whole: so that each competitor has to pick, not those faces that he himself finds prettiest, but those the he thinks likeliest to catch the fancy of the other competitors, all of whom are looking at the problem from the same point of view… We have reached the third degree where we devote our intelligences to anticipating what average opinion expects the average opinion to be. And there are some, I believe, who practise the fourth, fifth, and higher degrees.*"

It doesn't matter if you're a value investor or growth focused or a technical trader or you use sun cycles and Fibonacci lines — the goal is all the same. You buy an asset because you *think* it will go up. And it will only go up if others *also* at some point, think it will go up. Therefore, to be a successful investor/trader, you need to be good <u>not</u> at identifying what *you* think are attractive assets, but rather at identifying what <u>other</u> market participants will think is an attractive asset in the *future* but are underestimating now. And as Keynes said, this is only the "third degree" level of thinking. The real masters are practicing the "fourth, fifth, and higher degrees."

Fact: In the real world there is no such thing as market equilibrium or intrinsic value. These are PhD constructed mumbo-jumbo. They're predicated on the grossly asinine assumptions of rational participants and perfect information.

Markets, value, and price are dynamic; meaning they're ever changing. They are constantly fluctuating, trending, reverting, and then trending some more; all on the whims of man (and now machine), who're all playing the "Beauty Contest" game.

Another way to explore this analogy is to try out this logic puzzle (via FT):

> *Guess a number from zero to 100, with the goal of making your guess as close as possible to two-thirds of the average guess of all those participating in the contest. To help you think about this puzzle, suppose there are three players who guessed 20, 30 and 40 respectively. The average guess would be 30, two-thirds of which is 20, so the person who guessed 20 would win.*
>
> *If you did not enter the contest, you might consider what your guess might have been.*
>
> *Now that you have thought, consider what I will call a zero-level thinker. He says: "I don't know. This seems like a math problem. I will just pick a number at random." Lots of people guessing a number between zero and 100 at random will produce an average guess of 50.*
>
> *How about a first-level thinker? She says: "The rest of these players don't like to think much, they will probably pick a number at random, averaging 50, so I should guess 33, two-thirds of 50."*
>
> *A second-level thinker will say: "Most players will be first-level thinkers and think that other players are a bit dim, so they will guess 33. Therefore I will guess 22."*

> *A third-level thinker: "Most players will discern how the game works and will figure that most people will guess 33. As a result they will guess 22, so I will guess 15."*

Where the hell do you get off this train? Well, if you take this higher-level thinking to its logical conclusion you get to the Nash equilibrium (named after the mathematician, John Nash, from *A Beautiful Mind*).

The Nash equilibrium is the number that if everyone were to guess it, nobody would want to change their guess. Can you guess?

Answer is zero. Dinosaurs will explain below.

The rules and the theory of the Guessing game/Beauty Contest Game

What does the Nash equilibrium have to do with markets? I actually don't know. I was hoping maybe you could tell me.

But I digress, the important thing here is Keynes' analogy and that markets are dynamic systems predicated on the guessing game played by us irrational humans.

And if that doesn't make 'em seem complex enough. Just wait, like Billy Mays would say… there's more!

Though Keynes' beauty contest analogy is great it actually falls short of revealing the true complexity of markets and successful speculation.

Blue Pill or Red Pill?

A more apt analogy would not only have participants trying to guess which face would be chosen as the most beautiful, but the beauty contestants' faces themselves would actually change in attraction based on how participants were voting. Meaning, the contestants' beauty would be affected by the observers/participants thinking about how others were voting, thus in turn affecting the participants own votes.

Confused? That's okay. Let me explain.

What I am talking about is the "Theory of Reflexivity", as put forth by Macro legend George Soros (in actuality, the idea was first introduced by sociologist William Thomas and then brought to Soros' attention by Karl Popper, his mentor) but Soros was the first to apply it to markets — and with great success, obviously.

Anyways, Wikipedia defines reflexivity as the following:

> *Reflexivity refers to circular relationships between cause and effect. A reflexive relationship is bidirectional with both the cause and the effect affecting one another in a relationship in which neither can be assigned as causes or effects. In sociology, reflexivity therefore comes to mean an act of self-reference where examination or action "bends back on", refers to, and affects the entity instigating the action or examination.*

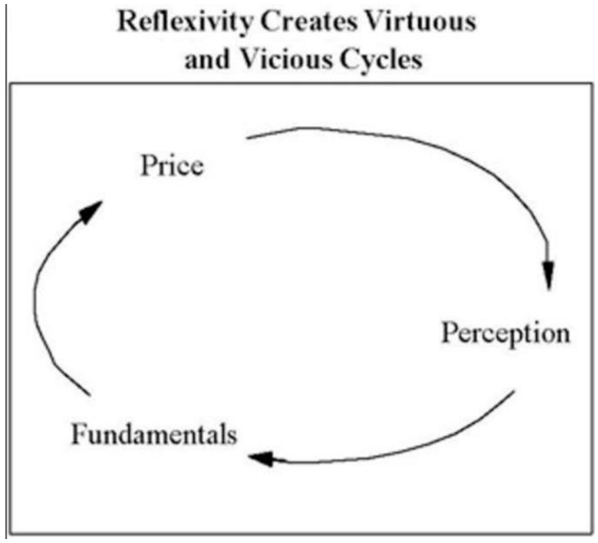
Reflexivity is centered around the idea of there being two realities; objective realities and subjective realities.

Objective realities are true regardless of what observers/agents think about them. For example, if I remark that it's snowing outside and it is in fact snowing outside, then that is an objective truth. It would be snowing outside whether I said or thought otherwise — I could say it's sunny but that would not make it sunny, it would still be snowing.

Subjective realities on the other hand are affected by what the participants think about them. Markets fall into this category.

Since perfect information doesn't exist (ie, we can't predict the future and it's <u>impossible</u> to know all of the variables that are moving markets at any given time) we make our best judgements about what assets (stocks, futures, options etc) should be valued at — we play the beauty contest game.

Our collective thinking is what moves markets and produces winners and losers. Meaning, what we think about reality affects the reality we are thinking about. And the reality we're thinking about affects our thinking about it.



Take a highflying tech stock like Amazon (AMZN), for example. The company has made little in the way of income (in relation to its market cap) for the majority of its existence (over 15 years), but the stock has continued to soar because people have formed a number of positive beliefs about the company/stock. These beliefs could be that maybe the company will make tons of money someday because it's innovative, eating market share, or has a secret profit switch that it can turn on whenever it finally chooses to; or maybe people continue to buy the stock because it's gone up for a long time and will therefore continue to go up.

In truth, it's probably many of these reasons and more why investors continue to pile into the stock. The reasons aren't important, what's important is that these positive beliefs have directly affected Amazon's subjective reality.

Here are just a *few* examples of how Amazon's fundamentals have been positively affected by investors' belief:

- The high stock price has allowed the company to receive lower financing costs
- Attract exceptional talent which in turn has led to increased innovation
- Hide costs by including stock options as a large portion of employee compensation
- Unconstrained by the need to produce profits, Amazon has been able to drastically undercut competition and steal market share

It's not difficult to imagine another reality in which investors collectively had a more negative or neutral belief about the company/stock throughout its life. Amazon would look very different today. Forced to focus on profits — like most businesses — Amazon perhaps would not have had the explosive sales growth it has experienced. Maybe it never would have expanded outside of selling books. Maybe a competitor would have run it out of business.

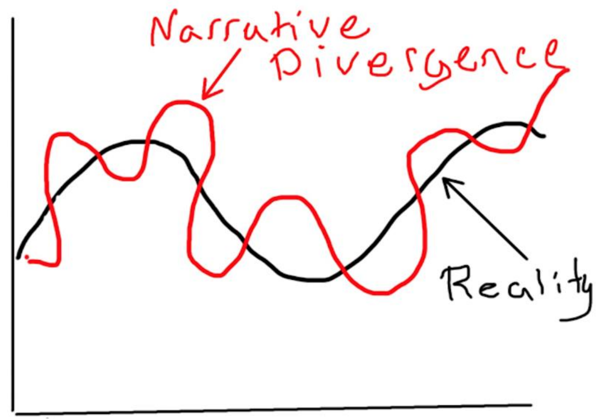
The point is, that markets are reflexive and our beliefs about them directly affect the underlying fundamentals and vice-versa. And sometimes the reflexive mechanism forms a powerful feedback loop and prices and expectations diverge drastically from reality.

Here is Soros on the subject:

> *Every bubble has two components: an underlying trend that prevails in reality and a misconception relating to that trend. When a positive feedback develops between the trend and the misconception, a boom-bust process is set in motion. The process is liable to be tested by negative feedback along the way, and if it is strong enough to survive these tests, both the trend and the misconception will be reinforced.*

What Soros is saying is that markets are in a constant state of divergence from reality — meaning, prices are always wrong. Sometimes this divergence is tiny and imperceptible. Other times this divergence is large, due to feedback loop drivers. These are the boom and bust processes. And it is these large divergences that we as traders want to seek out, because that is where the money is.

There are countless examples of large price/reality divergences in markets. Dutch Tulip-mania in the 17th century, tech bubble of 2000, and the housing bust of 08' (and nearly every asset in 2016?) are just a few examples of this process at work. Here's Soros again:



> *Usually some error in the act of valuation is involved. The most common error is a failure to recognize that a so-called fundamental value is not really independent of the act of valuation. That was the case in the conglomerate boom, where per-share earnings growth could be manufactured by acquisitions, and also in the international lending boom where the lending activities of the banks helped improve the debt ratios that banks used to guide them in their lending activity.*

So a lot of what investors consider to be "fundamentals" aren't really objective facts.

Except…

That's not completely true either. Because eventually, underlying economics prevail. The narrative divergence between a "false-trend" and reality (real economics) eventually closes. And "fundamentals", once again become fundamentals — it's just a function of time.

The father of value investing, Benjamin Graham, hit the nail on the head when he said:

> *In the short run, the market is a voting machine but in the long run, it is a weighing machine.*

This means that we can go back and revise our beauty contest analogy one more time. Let's look at what our final analogy then looks like:

- The key to winning the beauty contest game is not about picking the most beautiful girl. But, about figuring out which girls the average participant thinks the average participant will pick.
- The girls in the beauty contest will become more/less attractive to the voters in relation to how they vote for them. The voters decisions on who to vote for will be affected by the changing attractiveness of the girls.
- Investors operate in dog years (we have short time frames and fall prey to recency bias) and economies operate on, well, much longer time frames. Ugly stocks/assets/markets can be the right pick for a long time in the beauty contest game. But eventually, reality wins out and the dogs are exposed and the lookers get the roses.

Because we don't just want to win the beauty contest in the short-term, but also in the long run. We have to remain cognizant of when the market has voted the ugly stepsisters as the most beautiful. This is massive narrative/reality divergence. It's a boom. And all booms are followed by busts.

Sounds difficult right? Well it is. And that's why successful speculation is so damn hard (and the best game in the world, IMO). There are layers upon layers to this onion. It's our jobs to keep peeling 'em back.

From Omnipotence To...

This discussion of narrative and reflexivity serves as a perfect setup to talking about today's markets.

What would you say has been the dominant narrative to markets over the last few years?

It's pretty obvious, right?

It's been dominated by real economic growth and rising productivity creating some great value opportunities… Just joking.

The dominant narrative has obviously been central banks and monetary expansion. Ben Hunt over at Salient Partners puts it well:

> *For the past six plus years, ever since the Fed launched QE1 in March 2009, we have lived in an era I've described as the Golden Age of the Central Banker, where the dominant explanation for why market events occur as they do has been the Narrative of Central Bank Omnipotence. By that I don't mean that central bankers are actually omnipotent in their ability to control real economic outcomes (far from it), but that most market participants have internalized a faith that central bankers are responsible for all market outcomes.*
>
> *As a result, an entire generation of investors (we investors live in dog years) has come of age in a market where fundamental down is up and fundamental up is down. What's the inevitable market reaction to real world bad news – any bad news, regardless of geography? Why, additional accommodation by the monetary Powers That Be, united in their common cause to inflate financial asset prices through large scale asset purchases, must surely be on the way. Buy, Mortimer, buy! During the Golden Age of the Central Banker, monetary policy is truly a movable feast for investors.*

A feedback loop was created between the central bank omnipotence narrative and investors actions. Like all good narratives and feedback loops the basis was grounded in fundamental truth. As we've explained in our Market Brief *It's All Relative,* by lowering rates and easing through direct asset purchases the Fed made equities much more attractive. The initial bull market was grounded in sound economic sense.

What happened though, was the power of this narrative feedback loop continued to carry on while the real economic reality started to turn — as is often the case. This has led to the large narrative/reality divergence gap we have today.

How long can these narratives hold power before reality plows into them like a runaway semi?

Quite a long time. Which is why we need to be aware of the narrative so we can profit in the false-trend but also keep our eyes open for the crumbling of the narrative's power over the game's players.

Which brings us to today. And the evidence is starting to scream that we are moving from the narrative of "Central Bank Omnipotence" to the narrative of "Central Bank Impotence."

One of Deutsche Bank's lead economist, David Folkerts-Landau, last week released a note discussing the ECB and the negative impacts of its unorthodox negative interest rate policies. The note was the equivalent to a challenge of fistacuffs in the world of normally colorless disputes between economists. Here's an excerpt below, but the note is worth reading in whole (link here):

Already it is clear that lower and lower interest rates and ever larger purchases are confronting the law of decreasing returns. What is more, the ECB has lost credibility within markets and more worryingly among the public.

But the ECB's response is to push policy to further extremes. This causes misallocations in the real economy that become increasingly hard to reverse without even greater pain. Savers lose, while stock and apartment owners rejoice.

Worse, by appointing itself the eurozone's "whatever it takes" saviour of last resort, the ECB has allowed politicians to sit on their hands with regard to growth-enhancing reforms and necessary fiscal consolidation.

Thereby ECB policy is threatening the European project as a whole for the sake of short-term financial stability. The longer policy prevents the necessary catharsis, the more it contributes to the growth of populist or extremist politics.

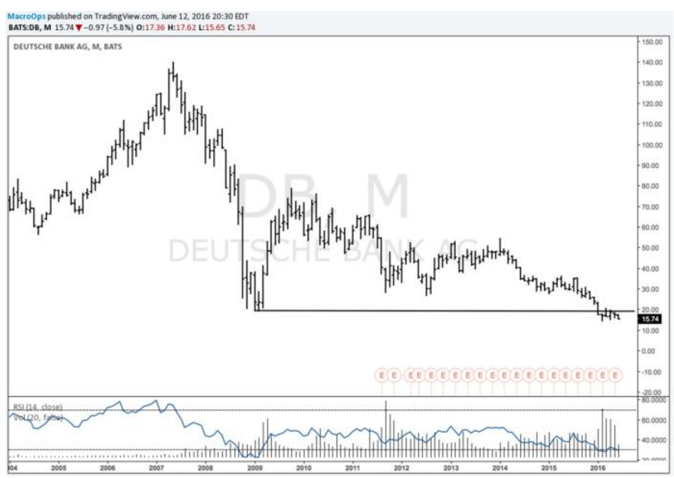
Our models suggest that in its fight against the spectres of deflation and unanchored inflation expectations, the ECB's monetary policy has already become too loose.

Hence, we believe the ECB should start to prepare a reversal of its policy stance. The expected increase in headline inflation to above one per cent in the first quarter of 2017 should provide the opportunity for signaling a change.

David goes on to pin income disparity, dissatisfaction with the eurozone project, and even the rise of right wing extremist political parties on the actions of the ECB — some of these accusations are warranted.

Why so much heat from a boring economist? Well, one look at Deutche Bank's stock price and you'll get it. Its stock is now trading below the lows of the 09' financial crisis.

Banks in Europe and Japan are getting killed by negative interest rates. Surprised? I know! Who could have possibly foreseen this?!



Banks make their money on NIM (net interest margin). NIM is the difference between the interest that banks charge on loans and what they pay out to depositors. This is a foundation of capitalism and the productive deployment of capital. This has now all been screwed.

Central banks in all their infinite wisdom thought, "if low interest rates spur economic activity… then negative interest rates must be even better." They hoped that if savers couldn't get any money on their safe deposits and it was free to borrow then they would go out and consume more.

But what has happened is that consumers have actually started to borrow and spend less because of the economic uncertainty created by this bizzarro NIRP experiment. And banks, whose profits have evaporated because of a non-existent NIM spread have become reluctant to lend.

And even worse (for the ECB), some of Europe's largest banks are now considering literally hoarding cash… just putting physical cash and gold into vaults. Here's John Mauldin on the matter:

> *Speaking of cash-hoarding behavior – which is one side effect of negative rates – one of Germany's largest banks is seriously considering it. Sources within Commerzbank have told Reuters they are "examining the possibility" of hoarding physical euros by the billions in secure vaults. This would let them avoid the -0.4% NIRP penalty for parking cash with the ECB.*
>
> *This is truly bizarre. Under normal conditions, holding cash is anathema to commercial bankers. They keep as little as possible on hand and certainly don't go out of their way to hold more. Yet here we see a major bank considering doing just that. The only way that tactic makes sense is if the bank can't profitably lend the cash to its customers, which, given the rules for lending in Europe, actually happens to be the case.*
>
> *Nonbank financial institutions are also storing cash. Munich Re said back in March it would store both physical cash and gold to avoid paying negative interest rates. Management framed the move as a minor test at the time. It may well have been – but you don't conduct such a test unless you see some chance that you will need to hold cash on a larger scale.*
>
> *Perhaps not coincidentally, the ECB thrilled conspiracy buffs last month by announcing it would cease issuing 500-euro notes after 2018. The ostensible reason is that the large notes could "facilitate illicit activities." Few believed the deterrence of crime was the bank's main objective. The presence of large amounts of physical cash in an economy is inconvenient for any central bank that wants to push interest rates negative, as the ECB does.*

The backlash against NIRP isn't just confined to Europe but is becoming a black eye for the BOJ as well. Last month, Nobuchika Mori, Japan's commissioner of Financial Services Agency — and former cheerleader of Abe's economics — said the following:

> *In many countries, notably Japan, low interest rates have prevailed and the yield curve has become flat… In this environment, it will become more and more difficult for banks to achieve balances between risk, return and capital, by the pursuit of the merits of scale through price competition. The sustainability of a bank would ultimately hinge upon what shared values it creates with their customers.*

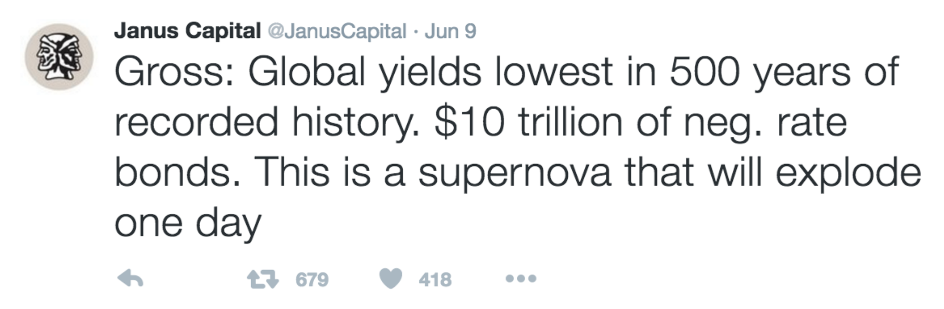
NIRP isn't working. In fact, it's having the opposite impact that central banks were hoping for but that they will surely be slow to admit. Bond king, Jeffrey Gundlach, got it right when he recently said, "negative interest rates are the stupidest idea I have ever experienced."

I agree Jeff, pretty stupid.

This puts the world in quite a conundrum. There is now over $10 trillion in negative government yielding debt. That is A LOT of money earning less than nothing. And more importantly, it's a financial nuke with a very touchy trigger.

This is because when you're holding bonds at negative interest rates some very interesting things start to happen. Very small fluctuations in yield can cause increasingly large moves in price. Goldman Sachs recently predicted that just a 1% increase in yield on sovereign debt would cause investors over $1 trillion in losses, which is even higher than the sub-prime crisis of 2008.

Investors are beginning to wake up to this fact. Bill Gross recently tweeted the following:


Janus Capital @JanusCapital · Jun 9

Gross: Global yields lowest in 500 years of recorded history. $10 trillion of neg. rate bonds. This is a supernova that will explode one day

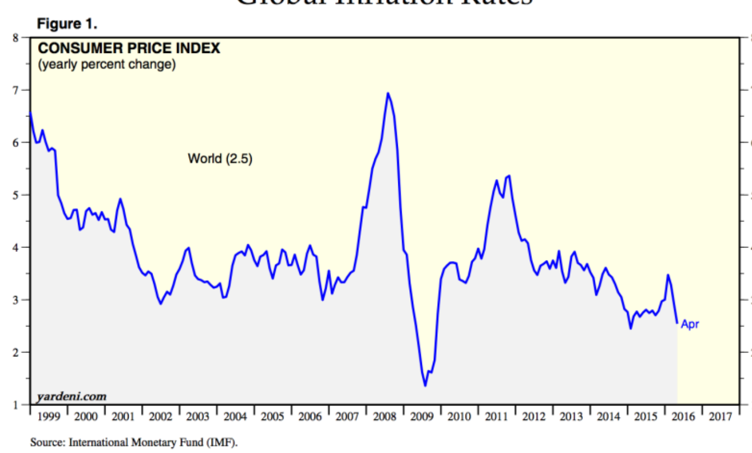
679 418

Yes, it's a supernova and like Gundlach said, "the next major event for markets will be the moment when central banks in Japan and in Europe give up and cancel the experiment."

So sovereign bonds have gone from being "risk-free assets" to "return-free risky assets". Good job central banks, well done.

Reality is approaching the fragile omnipotent central bank narrative fast. Central banks have backed themselves into a corner. As we've just discussed, once you go NIRP, you can't really go back — at least not without total financial chaos.

Global Inflation Rates



So the ECB and BOJ will be left with the choice of normalizing rates and risk blowing up a $10 trillion NIRP-nova™… Or they will hold tight with a policy that is having the opposite of the intended effect on their economy.

Just look at the chart to the right. After TRILLIONS spent on quantitative easing around the world, global CPI is nearing lows not seen since 09'.

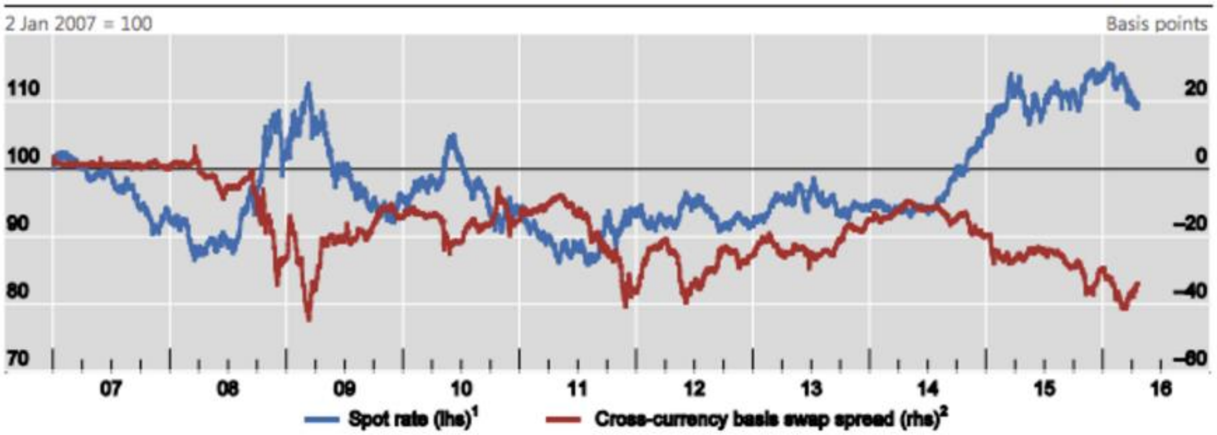
The era of central bank impotence is fast approaching and I have to say, after the last six months of absolutely boring choppy markets, I am finally getting really excited. The second half of this year is shaping up to be a macro traders paradise due to the large structural shifts that are happening at the moment.

Our P&L has done a whole lot of nothing since the start of the year (which I'm happy about considering the environment, the name of the game has been to not lose much). But I see some very large trades coming our way, the kind that will make your whole nut for the year and then some.

Long USTs continue to be a good place to put your money and should continue to be so (though except some chop in the near term). The long dollar trade is what I'm really getting excited about, and all the related trades we can play off the strong dollar theme. It still isn't time yet, but we're getting close.

I really wanted to write about the chart below in this week's brief but this thing has already run long, so I'm going to write up a report and share it with you guys in a few days. It's something I'm really excited about. The chart below is the most important chart to the global economy and markets right now. I'll explain why; we'll talk covered interest parity (CIP) theory, and the massive trades that are going to result from this unique macro imbalance that is occurring.

US dollar exchange rate and the cross-currency basis — Graph 2



[1] Simple average of bilateral exchange rate of the dollar against CAD, EUR, GBP, SEK, CHF and JPY. Higher values indicate a stronger US dollar. [2] Simple average of the five-year cross-currency basis swaps against CAD, EUR, GBP, SEK, CHF and JPY vis-à-vis the US dollar.

Sources: Avdjiev, Du, Koch and Shin (2016); Bloomberg; BIS calculations.

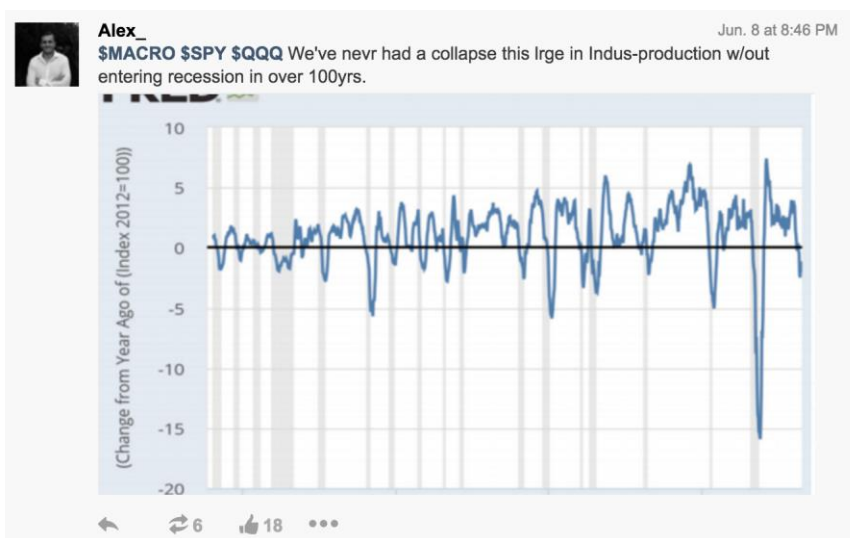
The Fed is meeting this week. I'm not going to spend much time discussing the Fed here. In my opinion, the Fed is becoming less and less of an important variable in the macro game at the moment. Their hands are tied. They've fallen behind on this cycle and I think they're now starting to wake up to this fact.

They may or may not hike this week. Markets have assigned a near zero probability to one which i think is grossly underpricing the possibility. I would say there's a 30% chance of them hiking on Wednesday. It's much more likely that they won't hike, but will jawbone a bunch about maybe hiking in July (which they probably again won't do).

One last chart for this section.

The collapse in industrial production is significant. We've never had a decline this large in production that hasn't been followed by a recession. Ever.

A recession is coming and our call at the start of the year that we'll likely be in the early stages of one by the 4th quarter still appears to be on track. This is interesting because our equity indexes are a flea's arse away from all-time highs. We may push a bit higher from here, that's possible. But the probability of an extended bullish run at this point has greatly diminished. The risk are extremely asymmetric.



Some Final Quick Riffing:

I think the commodity rebound (especially oil) is near being over and will be turning back down in the next month or two.

I think the Shanghai Accord between the large central banks is becoming increasingly fragile and it would not be surprising to see one of them break it this summer — I'm looking at you BOJ and PBoC.

I think the shock for this next bear market will come from outside of the US. The probability of a large banking crisis in Europe is growing — Italy and Spain are a disaster.

I know little about the Brexit situation. But I do know that if they vote to leave, it will be the signal to other EU members that will matter most and not the actual act of the UK leaving.

Finally, I just want to thank all of you, our fellow Operators. We appreciate you guys taking a shot with us as a new service. We're still very very much in our first stage of evolution here as far as the site and service is concerned. We're constantly striving to make it better.

You'll notice some changes in the Hub this week. We decided to combine the IMINT and HIT List sections into a new "Targets" section. In Targets you'll find a handful of charts that we're most interested in along with a more in-depth analysis of each. You can find the Targets section here.

We would love to hear your feedback on this change and any other aspects of the Hub. Give it to us straight. The good, the bad, and the ugly — especially the ugly, cause that's the most helpful for us. We want to ensure we're making the Hub as useful as possible for you.

If there's something you'd like to see more of or if you have an idea for something, let us know. Shoot us an email or drop your comment in the Comm Center.

We'll also be making some upgrades to the dashboard over the next few weeks. We're working on building out a number of our own proprietary indicators that we use to understand the world, which we'll share with you guys. Eventually, we're aiming to build an actual interactive platform with full macro data inputs and our own little Bridgewater style algo running for all of us to use — these are things we're currently working on.

I'll end the Brief here. I hope you're finding my rants and analysis useful, if you've got any questions or comments, just drop me a line. Have a good week in the markets and I'll see you in the Hub!

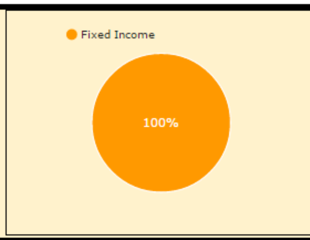
~Alex

Portfolio Snapshot

Macro Ops Strategic Portfolio								
NAV	$969,098.47							
Asset Class	Position	Size	Cost Basis	Risk Point	Open Risk	Target 1	Beta (1yr)	Notional
Fixed Income	TLT	5000	$132.87	128.98	$19,450.00	146.00	-0.32	$667,000

Metrics

Exposure Breakdown	
Equity	$0.00
Commodity	$0.00
Fixed Income	$19,450.00
Forex	$0.00



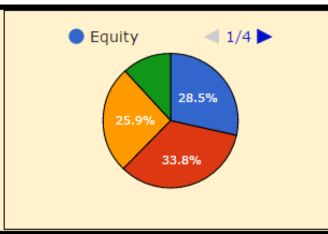
Total Open Risk	Portfolio Beta
$19,450.00	-0.22
2.01%	

*Updated 6/12

Macro Ops Tactical Portfolio								
NAV	$991,403.12							
Asset Class	Position	Size	Cost Basis	Risk Point	Market Price	Open Risk	Target 1	Notional
Commodity	Bean Meal (ZM)	3	281.50	402.2	414.9	$3,810.00	296.5	$171,420
Fixed Income	US Bonds (ZBU6)	4	166'16	164'19	168'10	$14,880.00	171'27	$667,000
Equity	Pampa Energia (PAM)	6800	24.40	23.31	25.72	$16,388.00	27.76	$174,896
Commodity	Silver (SIN6)	2	17.05	16.36	17.33	$9,700.00	19.04	$173,300
Commodity	Coffee (JO)	5650	21.31	20.00	21.05	$5,932.50	24.30	$118,932
Forex	GBTC	205	72.00	59.85	92.92	$6,779.35	124.00	$14,699

Metrics

Exposure Breakdown	
Equity	$16,388.00
Commodity	$19,442.50
Fixed Income	$14,880.00
Forex	$6,779.35



Total Open Risk
$57,489.85
5.80%

*Updated 6/12

Macro Ops Hub
Target. Deploy. Profit.

Macro Ops Income Portfolio

NAV	$1,036,771.50			

Asset Class	Position	Size	Cost Basis	Max Profit
Option	SPX June 16 1960 Put	-10	10.80	$10,800
Option	SPX June 16 2155 Call	-10	14.80	$14,800
Option	SPX June 16 1520 Put	10	1.00	Hedge

Scenario Analysis/Stress Tests

Worst Case	Worst Drawdown
SPX Down 10%	-$58,000
SPX Down 20%	-$252,861

**Updated on 6/12