

A Pricey Pizza

Operators,

Your November MIR issue is *jam packed* with intel you won't find anywhere else.

We kick things off analyzing the hottest "asset" around — bitcoin.

Is it a *real* currency? What's its value? Is it even *possible* to value it? Where does it go from here? We cover it all.

We then move on to the macro where we provide an update on our reflation theme. Long story short, we're right on track...

Next we dive into our equity picks and give you a new option strategy that returned 20x on one of our winning trades this year.

Finally, our Quant section wraps things up with a clever way to play the next big down move in the S&P.

I hope you enjoy it! I'm excited to hear your thoughts.

Be sure to send me an email at alex@macro-ops.com when you're done reading.

Your Macro Operator,

Alex

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Intro: Bitcoin

On May 22nd 2010, computer programmer Laszlo Hanyecz ordered two Papa John's pizzas. They were Hawaiian style. He paid \$60,000,000. According to Laszlo, they were your typical Papa John's, and tasted only "okay..."

In 2013, a Brit by the name of James Howells accidentally threw away a laptop worth over \$45,000,000. He realized what he'd done a few months later and went down to the landfill to dig through mountains of garbage to no avail. James says he's now "at the point where it's either laugh about it or cry about it... Why aren't I out there with a shovel now? I think I'm just resigned to never being able to find it."

In 2009, a Norwegian named Christopher Koch made a \$27 investment on a whim. The investment "annoyed" his then girlfriend who thought it was a waste of money. Today, his \$27 investment is worth \$30,000,000. Chris now owns property in Toyen, the wealthiest neighborhood in Oslo. He has a new girlfriend.

You're probably wondering what I'm talking about. Who are these guys that would drop millions on a pizza or somehow forget about buku money stored on a laptop?

The common thread here is bitcoin — the first and most popular cryptocurrency.

I was having some fun with the numbers. You see, Laszlo didn't really spend \$60M on two Papa John's pizzas. He paid \$25 for them, but in bitcoins. 10,000 of them to be exact. It was the first recorded merchant transaction in cryptocurrencies ever.

But the price of bitcoins has gone up a bit since then.

A single bitcoin today is now worth over \$6,000. Those 10,000 bitcoins that amounted to only \$25 in 2010 are now worth over \$60M. So in hindsight, it was an expensive pizza.

Bitcoin has had an annualized rate of return of 715% since then. As far as returns go, that's pretty darn good...

If you would have bought \$10,000 worth of bitcoin in 2009, when our lucky Norwegian bought his, your "investment" would now be worth roughly \$1,200,000,000. Granted, you would have had to sit through horrendous volatility and numerous drawdowns in the +80% range, but still....

Alright, I'm done pointing at how extremely rich we all could have been if we'd just bought a couple pizzas worth of bitcoins a few years ago. We didn't... we bought actual pizzas instead... so let's wipe our tears and move on.

In this month's MIR, we're going to talk about bitcoin, cryptos, blockchains and all that good stuff.

There's a lot of hype, one could even say a religious zealotry around cryptocurrencies' future. It's not hard to understand why. Bitcoin is up over 500% *again* this year and many of the other cryptocurrencies are up even more. Returns like that tend to create a fervent following.

Today we'll cut through the crypto zealotry to see what's actually going on in the blockchain market. We'll briefly talk about what Bitcoin is, where it came from, and how the market is likely to evolve going forward.

The Beginning... How Bitcoin Was Born

The Bitcoin origin story is a fascinating one.

It was first developed in 2009 by a group of computer programmers. They built it according to a cryptographic architecture created by a pseudonymous author who goes by the name of Satoshi Nakamoto.

The public still doesn't know who Satoshi is. It's believed that he actually might be a group of people and not an individual.

Either way, he (they?) are the largest holders of bitcoin after mining it in the early days. They possess more than 1 million of the coins. This puts Satoshi at 247 on the Forbes wealthy list.

Fun fact: There's a conspiracy — which is probably true — that the NSA uncovered who the actual Satoshi is. When bitcoin was created, the US intelligence community became concerned that it was the product of a rival state like Russia or North Korea. The government was worried it could be weaponized someday against the US, perhaps by upsetting the dollar as the world's reserve currency.

So the theory goes that the NSA used stylometry, which is the study of written language, in conjunction with their billions upon billions of data points to compare things written by Satoshi to things written by everybody else throughout the world. And the word is... they got a match.

Anyways, here's how the original Satoshi Nakamoto white paper starts (you can read the whole paper [here](#)):

Commerce on the Internet has come to rely almost exclusively on financial institutions serving as trusted third parties to process electronic payments. While the system works well enough for most transactions, it still suffers from the inherent weaknesses of the trust based model. Completely non-reversible transactions are not really possible, since financial institutions cannot avoid mediating disputes. The cost of mediation increases transaction costs, limiting the minimum practical transaction size and cutting off the possibility for small casual transactions, and there is a broader cost in the loss of ability to make nonreversible payments for nonreversible services. With the possibility of reversal, the need for trust spreads. Merchants must be wary of their customers, hassling them for more information than they would otherwise need. A certain percentage of fraud is accepted as unavoidable. These costs and payment uncertainties can be avoided in person by using physical currency, but no mechanism exists to make payments over a communications channel without a trusted party.

What is needed is an electronic payment system based on cryptographic proof instead of trust, allowing any two willing parties to transact directly with each other without the need for a trusted third party. Transactions that are computationally impractical to reverse would protect sellers from fraud, and routine escrow mechanisms could easily be implemented to protect buyers. In this paper, we propose a solution to the double-spending problem using a peer-to-peer distributed timestamp server to generate computational proof of the chronological order of transactions. The system is secure as long as honest nodes collectively control more CPU power than any cooperating group of attacker nodes.

The problem being solved here is a very important one in computer science. It's called the Byzantine Generals Problem or BGP.

Here's how BGP is explained: “[Imagine] a group of generals of the Byzantine army camped with their troops around an enemy city. Communicating only by messenger, the generals must agree upon a common battle plan. However, one or more of them may be traitors, who will try to confuse the others. The problem is to find an algorithm to ensure that the loyal generals will reach agreement.”

Silicon Valley VC Marc Andreessen explains the importance of this here:

More generally, the B.G.P. poses the question of how to establish trust between otherwise unrelated parties over an untrusted network like the Internet.

The practical consequence of solving this problem is that Bitcoin gives us, for the first time, a way for one Internet user to transfer a unique piece of digital property to another Internet user, such that the transfer is guaranteed to be safe and secure, everyone

knows that the transfer has taken place, and nobody can challenge the legitimacy of the transfer. The consequences of this breakthrough are hard to overstate.

Bitcoin is a digital bearer instrument. It is a way to exchange money or assets between parties with no pre-existing trust: A string of numbers is sent over email or text message in the simplest case. The sender doesn't need to know or trust the receiver or vice versa. Related, there are no chargebacks – this is the part that is literally like cash – if you have the money or the asset, you can pay with it; if you don't, you can't. This is brand new. This has never existed in digital form before.

Marc Andreessen is a smart guy. He, along with many other tech geeks, are excited about what the mysterious Satoshi created.

We should make a quick and important distinction here.

There's a difference between bitcoin and Bitcoin. Bitcoin, with a capital B, refers to the cryptographic protocol of the network, otherwise known as the blockchain.

Blockchain is the digital ledger that uses the cryptographic protocol proposed by Satoshi to solve the Byzantine Generals Problem — basically, the tech to help with our internet trust issues.

While bitcoin, small b, refers to bitcoin the currency. This is the token that's connected to the Bitcoin's blockchain network and which bitcoiners transact in. It's also often used as a blanket term for cryptocurrencies in general.

There are now over 1,000 different cryptocurrencies that are similar, yet different, to bitcoin with a small b. This list is growing every day.



Summary:

- **Bitcoin was developed from a cryptographic proof that was written by a pseudonymous person or persons who go by the name Satoshi Nakamoto.**
- **It was developed to solve the Byzantine Generals Problem of how to establish trust over an untrusted network like the internet, where transacting parties don't know who they're transacting with.**
- **Bitcoin does this through the creation of a digital ledger (the Blockchain) where two parties can exchange a digital asset in a safe and secured way to the extent that nobody can challenge the validity of the transfer.**
- **Bitcoins have gone up A LOT since they were created 8 years ago.**

The Blockchain: A Revolutionary Technology

I suggest you spend five minutes and watch this quick YouTube video explaining Bitcoin ([link here](#)).

Here's a quick description of Blockchain via Joseph Pham from [Quora](#).

If you understand the concept of a blockchain, you will have heard people (especially in enterprise) talk about distributed ledger. It describes a technology that uses a write once, read only "database" system that is bound by cryptographic verification, and bound through a series of "blocks" (batches of data / datasets) that are subsequently verified into a "chain" sequence of linked batches over time. This characteristic is what gives the technology the name "blockchain". Systems that spread / make copies of these blockchains available across a network are often referred to as distributed ledgers.

You can make a blockchain without distributing it, but it might not be as practical and useful for the real world applications you might consider with blockchains.

Bitcoin is just one configuration of blockchain technology, which integrates certain blockchain technology with innovative monetary incentives, social economics and cryptography. The innovative monetary incentive is to have a self verifying money supply - the bitcoins - which are basically entries in the ledger, that are determined mathematically, through solving a complex cryptographic puzzle (hashing), that must reach consensus (peer validation) and encodes a specific reward schedule (approximately every 10 minutes) and total supply of bitcoins (21 million).

A bitcoin is basically just a token value on a ledger (like in game gold and coin values in video games), that are created based on a set of system rules. There are a lot of Bitcoin based and bitcoin derived blockchain applications (using the Bitcoin open source data

repository). These are usually referred to as Cryptocurrencies, as Bitcoin was designed to operate as an e-currency system.

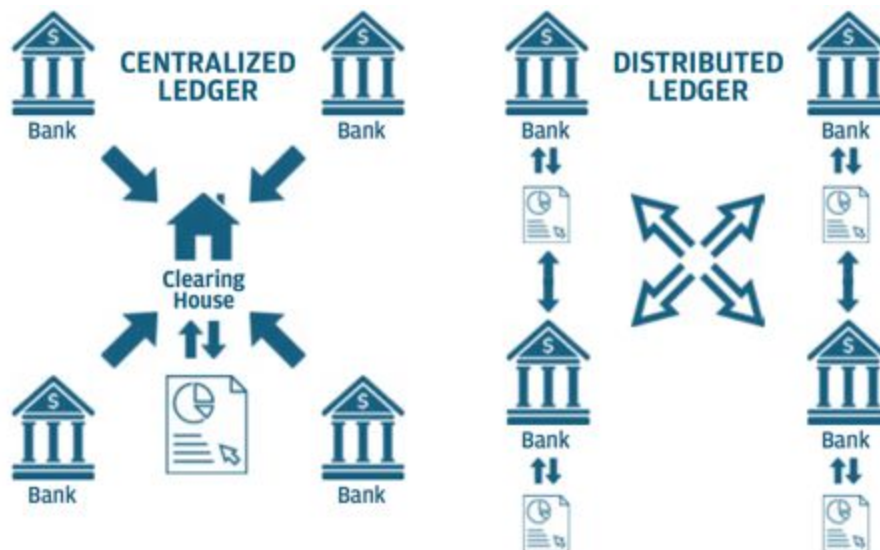
I hope I'm not losing you. Stay with me, we'll get through this tech talk soon enough.

Just to sum up, a blockchain is a digital ledger that encodes every transaction on its system forever. It uses cryptography to ensure the validity of these ledger entries. It's basically a one-way street where once entries are encoded, it's nearly impossible to hack or alter them.

I've heard the analogy used that each block of transactions in the chain is like a mosquito encased in amber — Jurassic Park style — and every time crypto miners authenticate a transaction and approve the entire blockchain, the amber gets thicker and thicker around the transaction. Meaning, the longer it lives on the blockchain, the more permanent it becomes; and more difficult (or impossible) to alter.

The blockchain can be distributed or not.

In Bitcoins case, and many of the other cryptocurrencies, this digital ledger is distributed across the world. The benefit of this is that no one entity has power over the network and the data is extremely safe and robust since it's copied all across the globe. Many servers can be wiped out but the data (the Blockchain) will survive.



Source: GIO. In a traditional/centralized ledger such as ones used in financial settlements, parties (e.g., banks) communicate with a centralized authority (clearing house), which manages and edits the data on a ledger. In a distributed ledger like blockchain, parties have their own copies of the entire ledger/data and achieve consensus among themselves to verify the information is accurate and up-to-date.

The bitcoins, or the crypto tokens, are used as an incentive system for miners on the network.

These digital miners use lots of computing power to solve the cryptographic puzzles (called hashing) that's needed to encode the bitcoin transactions and maintain the integrity of the blockchain. The network works off a consensus. Once a majority of the miners agree on the answer to a hash, the attached transaction then gets recorded to the blockchain forever.

The Brookings Institute calls the blockchain “a foundational technology, like TCP/IP, which enables the internet. And much like the internet in the late 1990s, we don’t know exactly how the Blockchain will evolve, but evolve it will.”

That seems to be the broad consensus amongst technologists regarding blockchain's potential — it's revolutionary and will have as sizable impact as the internet itself. But nobody is quite sure exactly how, yet.

The reason is partly because the use cases for blockchain appear to be nearly limitless. Here's an excerpt from a report by *BofA* on the subject.

To be frank, it's difficult for us to think of a large industry where there is no applicability of a blockchain, given the technology's ability to reduce data storage costs and prevent tampering. After all, blockchain at its core is just a way to store and access data. Startups, trials and proof-of-concepts are abundant in a myriad of industries. Blockchain technology could make tracking and managing digital identities more secure and efficient. A distributed ledger could aid online voting, cutting down on voter fraud. In financial services, the technology could ease payments and transfers; smart contracts could improve trade settlements. Smart contracts on the blockchain are being used to shake up prediction markets. In the music industry, the blockchain can be used to solve licensing issues: Artists, including English singer-songwriter Imogen Heap, have released music directly to fans via blockchain platforms.

Companies ranging from Walmart to Maersk are now using the tech to better track and manage their supply chains. A number of banks and brokerages like BNY Mellon are using it to record transactions.

It's a safe assumption to say that blockchain is revolutionary and is here to stay. But like the internet in the early 90's, we don't know exactly how it will revolutionize things. And again, like the internet, it will probably take a decade or two at least for the tech to mature and dramatically add value.

Now that we've got that out of the way, what about the value in cryptocurrencies. Is there any? What are they worth? Is it a bubble or is this just the beginnings of the largest bull market in history?

Summary:

- **Blockchains are the cryptographic technology underlying cryptocurrencies.**
- **There's a broad consensus that this technology is revolutionary and will have far and wide-ranging impacts on many areas of the economy; similar to the internet.**
- **But like the internet in the 90's it's still early days for this technology and nobody is quite sure how it will evolve.**

Valuing Cryptos: Zeros Or Heros?

To value something we have to first define what it is and what it isn't. And in the case of cryptocurrencies', this is not exactly easy.

Let's start with the obvious. Bitcoins, ethereum, Litecoins, and the hundreds of other crypto tokens are typically thought of as currencies, as their names imply.

But what makes a currency? And do these crypto tokens check the mark?

A currency is measured by how well it functions as two things:

1. **Medium of Exchange:** Currencies exist to make transactional commerce possible. This means that the currency needs to be accessible, transportable, and fungible in that it's accepted by large amounts of buyers and sellers as legal tender.
2. **Store of Value:** Currencies have to act as a reasonable store of value. Meaning, buyers and sellers need to feel comfortable keeping a certain amount of their wealth in it, knowing it will retain its purchasing power.

Let's start with cryptos as a medium of exchange. We're going to focus on bitcoin, since with a market cap of \$100B, it's the most popular of all the cryptocurrencies.

Here's NYU Professor Aswath Damodaran on bitcoin as a medium of exchange:

The weakest link in crypto currencies has been their failure to make deeper inroads as mediums of exchange or as stores of value. Using Bitcoin, to illustrate, it is disappointing that so few retailers still accept it as payment for goods and services. Even the much hyped successes, such as Overstock and Microsoft accepting Bitcoin is illusory, since they do so on limited items, and only with an intermediary who converts the bitcoin into US dollars for them. I certainly would not embark on a long or short trip away from home

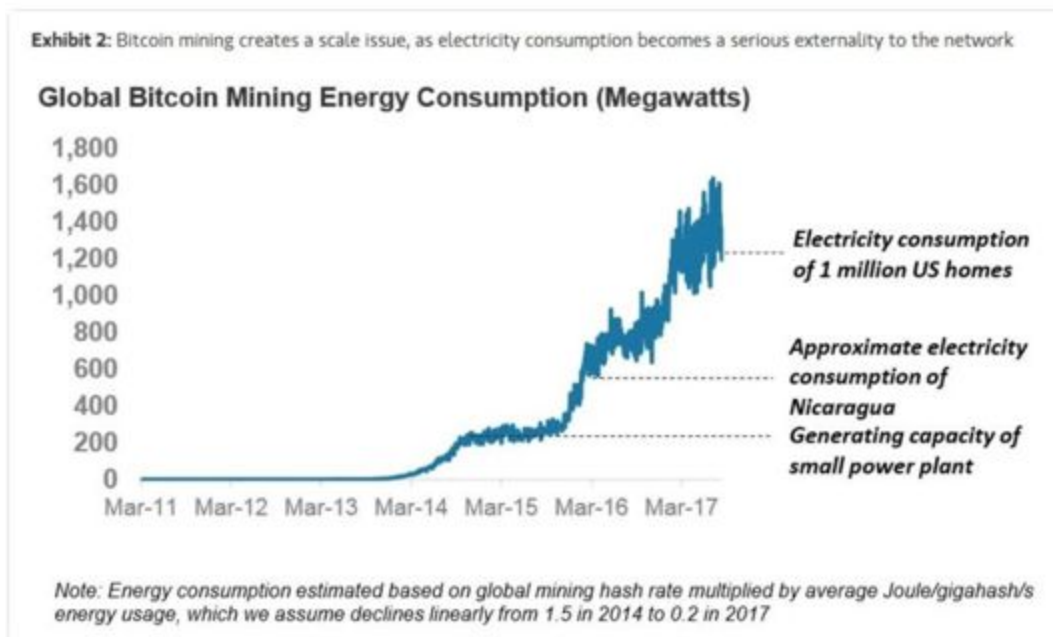
today, with just bitcoins in my pocket, nor would I be willing to convert all of my liquid savings into bitcoin or any other cryptocurrency. Would you?

There are a number of reasons why bitcoin has failed to make large inroads as a medium of exchange. One reason is that as the tech stands now, it's a costly and timely transaction process compared to the available alternatives.

Here's *BofA* again:

*The problem with bitcoin as a peer to peer payment system is that it's expensive, relative to conventional alternatives. This comes from the mining process. Mining isn't a zero sum game. The economics of mining are pretty simple. There is a fixed reward per block mined. At present, each block generates 12.5BTC. So, each block mined produces in Dollars around 12.5*bitcoin/dollar rate. At present, this is around \$60k per block. This is a function of the bitcoin price. There are roughly 2000 transactions in a block, give or take. This implies that around \$30 of bitcoin are created per transaction at present. Economically, we would regard this as a cost of the transaction, although this is not how people always view it.*

Miners need to be paid because the cost of mining (of applying CPU to blockchain hashing) is becoming prohibitively expensive. It requires enormous and increasing amounts of energy. The chart below demonstrates such:



The electricity being used to mine bitcoin is now equivalent to the amount it would take to power over 1 million US homes!

Or to put it another way, **the total energy consumption of the world's bitcoin mining activities is more than 40 times that required to power the entire Visa network. The annual energy consumption is equivalent to 13,239,916 barrels of oil!**

Not only are the costs of transacting and running the network absurd, but the speed at which transactions are processed are extremely slow. *BofA* lays out the problem:

*To illustrate, Visa's payment system processes 2,000 transactions per second, on average, and can handle up to 56,000 per second, if needed. Assuming similar transaction handling capabilities at other large payment schemes such MasterCard, UnionPay, AliPay etc, total digital payment transaction volume in the retail space can be an order of magnitude higher than the aforementioned 2,000 transactions per second. Assuming 20,000 retail transactions are processed every second, **it would take about 100 minutes for one second's worth of transactions to be recorded on the bitcoin blockchain.***

Lastly, due to the astronomical rise of bitcoin and other cryptos over the last few years, the tokens have drawn quite a bit of attention. **This has created a speculative fever where the tokens are not being bought for their value, or as a means to transact, but rather as a gambling vehicle used to bet on further price gains.**

It's a momentum driven market where everybody's chasing returns. And that creates an issue because people don't want to be like Laszlo Hanyecz and spend their bitcoins on a stupid Hawaiian pizza when those bitcoins could be worth many multiples of what they are today.

This creates a conundrum for cryptos. As Aswath Damodaran puts it, "It remains an unpleasant reality that what makes crypto currencies so attractive to traders (the wild swings in price, the unpredictability, the excitement) make them unacceptable to transactors."

So bitcoin fails (currently) to meet the requirements of a proper medium of exchange.

What about store of value? Are cryptos a fiat currency similar to the US dollar, as many crypto fans proclaim?

Here's economist Brad deLong's take:

Underpinning the value of gold is that if all else fails you can use it to make pretty things. Underpinning the value of the dollar is a combination of (a) the fact that you can use them to pay your taxes to the U.S. government, and (b) that the Federal Reserve is a

potential dollar sink and has promised to buy them back and extinguish them if their real value starts to sink at (much) more than 2% / year (yes, I know).

Placing a ceiling on the value of gold is mining technology, and the prospect that if its price gets out of whack for long on the upside a great deal more of it will be created. Placing a ceiling on the value of the dollar is the Federal Reserve's role as actual dollar source, and its commitment not to allow deflation to happen.

Placing a ceiling on the value of bitcoins is computer technology and the form of the hash function... until the limit of 21 million bitcoins is reached. Placing a floor on the value of bitcoins is... what, exactly?

Bitcoins lack the essential qualities to make it a viable medium of exchange and store of value. Hence they can't and shouldn't be thought of as currencies or valued as such.

The things that make bitcoin a libertarian's wet dream such as its decentralized nature and the fact that no one has control over the system, also means that it doesn't have any true intrinsic value.

Its value is based completely off of people's beliefs... and more importantly, people's beliefs about other people's beliefs.

Crypto fans call this the network effect — which is a term used to describe companies whose values increase the more people use their products, like Facebook. But this is a limp comparison.

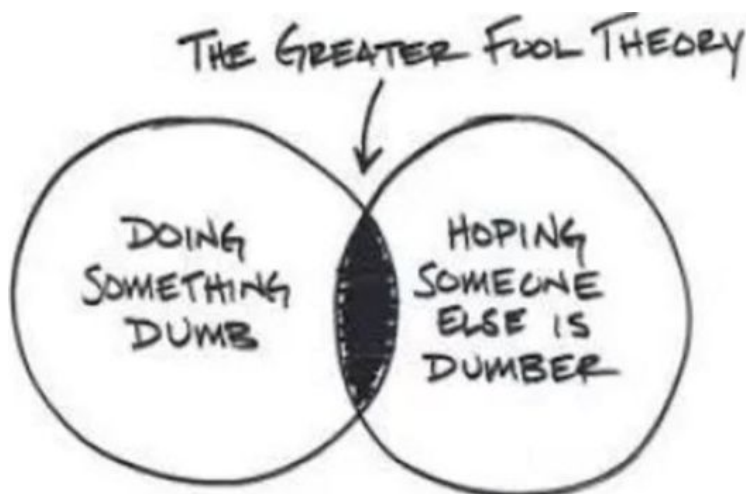
Network effects when applied to tech companies are important because they lead to greater earnings power and value creation — the more people use a social network, the more others want to join, and the more advertisers will pay for access to the network and so on.

Real network effects actually create more value for the owners of the company and users of the product.

Bitcoin doesn't sell anything and doesn't produce any cash flows. It's a non-currency that doesn't quite work as a medium of exchange or a store of value.

It's "value" is based purely off the beliefs of those who buy it. **And this belief is that bitcoin is valuable because other people think it's valuable. "If I buy it now, I'll be able to profit at a later date by selling to somebody else".**

In trading parlance, this is called "Greater Fool Theory" or GFT.



Wikipedia explains GFT as:

The price of an object is not determined not by its intrinsic value, but rather by irrational beliefs and expectations of market participants. A price can be justified by a rational buyer under the belief that another party is willing to pay an even higher price. In other words, one may pay a price that seems “foolishly” high because one may rationally have the expectation that the item can be resold to a “greater fool later.”

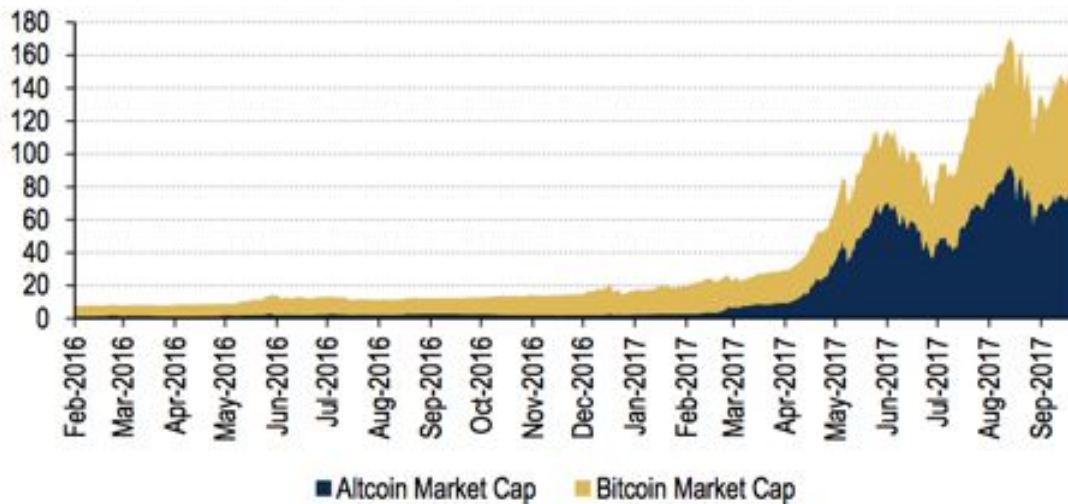
The Oracle of Omaha, Warren Buffett, agrees.

He calls bitcoin a bubble, stating “You can’t value bitcoin because it’s not a value-producing asset”. But “people get excited from big price movements, and Wall Street accommodates” making bitcoin a “real bubble in that sort of thing”.

Maybe bitcoin should then be thought of as equity in a pre-revenue biotech startup. A startup with no leadership (it’s decentralized), no product yet of intrinsic value, and a growing number of nearly identical competitors entering the market every single day.

But the shares of the 1,000+ various cryptocurrencies have a total market cap of \$176B and growing. New shares are being issued every single day. Many, some, or maybe none, will eventually create intrinsic value somehow... but nobody knows exactly how quite yet.

Chart 1: Cryptocurrencies market cap (\$bn)



A better comparison of how to think about bitcoin's value might be trading cards (think Magic or Pokemon) or in-game artifacts like a flaming sword in World of Warcraft (I don't know if the flaming sword is a thing but let's pretend it is).

Unlike a pre-revenue startup that may produce actual value someday, trading cards and in-game artifacts only have value because they have devoted fans and there's a false scarcity of these objects injected by their makers.

Neither of these have intrinsic value of any sort, but they have a price that fluctuates according to their popularity. So yeah, that's a better comparison. Bitcoins are like a \$6,000 Pikachu card.

Do you want to buy some bitcoin now?

Summary:

- **Bitcoin is neither a good medium of exchange or a good store of value, making it a terrible currency**
- **Bitcoin is "valued" purely through its popularity and Greater Fool Theory — making it more similar to a Pokemon card than a real currency**

My Take On Investing In Bitcoin

As a long-term investor, I wouldn't touch any of these with a ten foot pole even if my arch nemesis — you know who you are — was holding.

It's a total crapshoot and gamble. This market is purely speculative at this point.

But since I am speculator, would I trade it?

Hell yeah, why not?

Traders love this type of positive volatility. And bitcoins have all the right ingredients to drive this trend even higher. It's really the perfect "asset" for creating a frenzied mania along the likes of the Tulip and South Sea bubbles.

These ingredients are:

- **It's impossible to value:** Anybody who tries is lying to you and themselves. And this is great, because when something has no intrinsic value, it can be either zero or infinity or somewhere in between since there's absolutely nothing reliable to gauge it off of.
- **Greater Fool Theory:** It's value relies entirely on what the other fool is willing to pay for it. That's it and that's the only thing you need to analyze in this market when making buy and sell decisions.
- **It's a compelling and complex story and humans love stories:** One of the best things that bitcoin has going for it is that nobody really understands the tech and what its actual use cases will end up being.
- **It's anti-government/anti-establishment attributes make it a perfect tech for the times:** Populism is rampant as well as distrust in institutions around the globe. The idea of a speculative instrument outside of institutional control has the perfect appeal.
- **It's a global market:** Anybody anywhere can play bitcoin (though in some countries it's harder than others). This means there's a huge pool of potential fools who still haven't bought in.

And to top it all off, we're in the perfect macro environment for a huge speculative bubble.

We're coming off a period of horribly negative global sentiment stemming from the Great Financial Crisis. And long periods of negative sentiment are typically followed by the opposite.

Central banks have kept the world flush with easy money by keeping interest rates low and printing billions in new money. In macro terms, we say that global liquidity is flush.

And this creates the perfect environment for asset bubbles. This was perfectly described by 18th century editor of *The Economist* Walter Bagehot when he said:

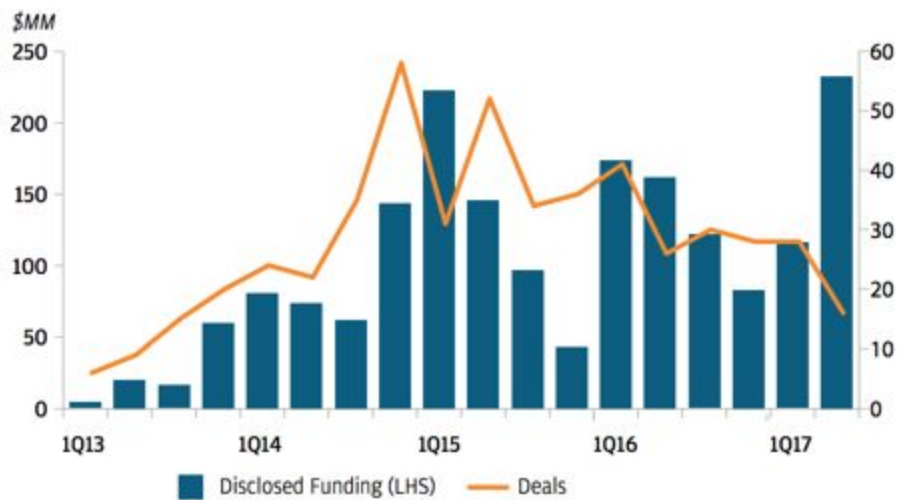
One thing is certain, that at particular times a great deal of stupid people have a great deal of stupid money... At intervals, the money of these people — the blind capital, as we

call it, of a country, is particularly large and craving; it seeks for someone to devour it, and there is a 'plethora'; it finds someone, and there is speculation; it is devoured, and there is 'panic'.

This is why we're seeing celebrities like Paris Hilton and Floyd Mayweather advertising their own initial coin offerings (ICO's are alternate coins that typically get split off the ethereum blockchain and become their own separate "currency").

Since anybody can "fork" off a blockchain network (it's all open source), everybody can create their own crypto token. And they are. And people, lots of people, are buying them...

Blockchain "startups" have raised a disclosed \$1.85B in just the first half of this year.



Source: CBInsights. As of April 2017. (<https://www.cbinsights.com/research/blockchain-startup-deals-ico-trend/>) Blockchain startups have raised a disclosed \$1.85 billion between 1Q13 and 2Q17 across 511 deals.

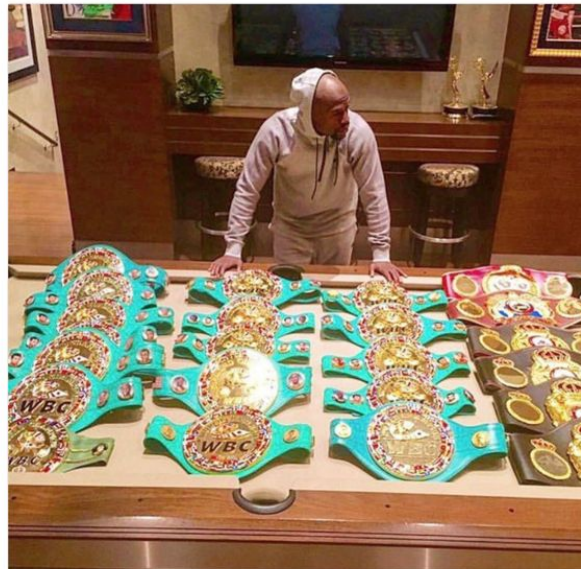
This is leading to some outrageous scams that are often unwittingly being promoted by these said celebrities.

Take the example of Centra.

Centra was a recent initial coin offering that raised \$30 million and was promoted by Mayweather and rapper DJ Khaled.

 **Floyd Mayweather** 
@FloydMayweather Follow 

Centra's (CTR) ICO starts in a few hours. Get yours before they sell out, I got mine
[facebook.com/floydmayweathe ...](https://www.facebook.com/floydmayweather)



3:44 PM - 18 Sep 2017

Centra made big promises of partnering with Visa and creating the first debit/credit card for the crypto market, amongst other grand visions.

The problem is that these were just empty words.

It was found that the company hadn't even talked to any of the major credit card companies, employed no computer programmers, that the founders previously ran a luxury rental car service in Miami of all places, and their listed CEO was a fictional (as in completely made up) person.

The "founders" of Centra now have \$30 million of investors' money. Of which, they can choose to do anything they want... like buy a bunch of Maseratis or life-sized cheese molds of themselves, and investors be damned....

An "investor" in the Centra ICO posted on Reddit defending the company and its crypto tokens saying "What's important is that Centra is being endorsed and they have a product. That's what matters to investors".

This is the type of highbrow "investor" who is now driving prices higher in the crypto market.

Again, the vast majority of the players in this market don't care about "trivial" things like made up CEOs and not having a real business model. They just want a higher price to sell into, a greater fool than them.

Centra is not an isolated incident. This is happening more and more.

I find this extremely fascinating from a behavioral investing standpoint.

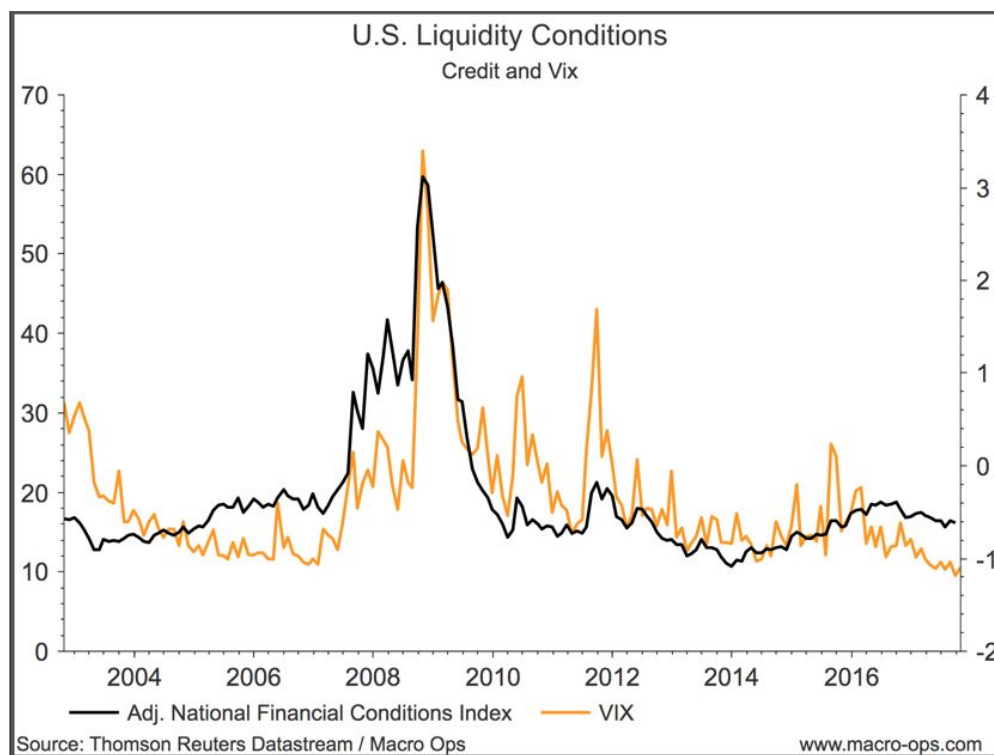
We're witnessing what may well become one of the largest speculative bubbles in history. And people are becoming full-on punch drinking devotees. The more this zealotry spreads, the more crypto prices will rise, which will reinforce their beliefs and bring in ever more greater fools!

To play this kind of speculative bubble one needs to work off the technicals — which are very good in bitcoin where pure emotion/sentiment dominates price action — and keep a close eye on the [liquidity](#).

Liquidity, which is the availability of money and demand in the global system, always precedes market moves.

A tightening of liquidity means a tightening of credit conditions. This leads to lower future demand and is a sign that investors are discounting greater risks in the market.

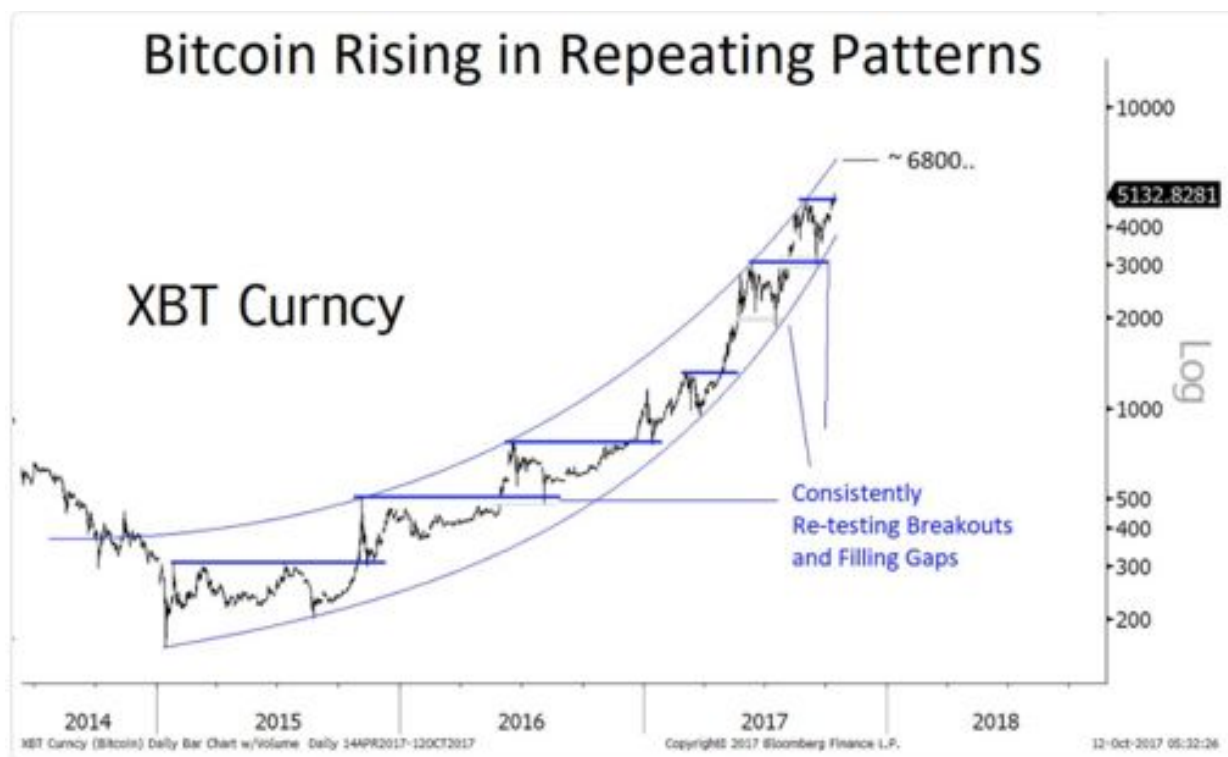
When global liquidity starts to drain (the black line moves higher on the chart below), rising volatility (orange line) typically follows.



And when market volatility rises, investors begin to reprice risk. The repricing of risk leads to lower demand and hence fewer fools to sell risky assets to. Fewer fools means less buyers and less buyers in a momo market leads to more sellers. This creates the scenario where you have a bunch of freaked zealots all clambering for a shrinking exit at the exact same time.

This is when a boom leads to bust. And the warning signs will show on the various liquidity indicators beforehand.

The chart below is from [Peter Brandt](#). It shows bitcoin forming a classic parabola. This is a common technical pattern in a speculative bubble.



We should continue to see the channel narrow and compress as the dips get bought more quickly and prices rise. When the price hits the top of the parabolic channel we should expect a retrace of at least 50%. The current price target is \$6,800, not far from where bitcoin is currently trading.

Buyers should beware once they see liquidity begin to tighten at the same time bitcoin is trading near the upper range of its channel. That will be a setup for a large pullback.

This setup is aligning perfectly with the launch of bitcoin futures by the CME. This is a huge deal for the bitcoin trading community because it opens the floodgates to institutions and other participants who can only trade on regulated exchanges.

It also allows guys like us to easily short bitcoin when the eventual bubble pops!

[You can read more about the brand new CME bitcoin futures by clicking here.](#)

Conclusion:

- **The Blockchain is groundbreaking technology that, like the internet in the early 90s, will transform industries in ways none of us can fathom.**
- **Bitcoins have no intrinsic value and it's unclear how they develop any. Their "worth" is based purely off having a greater fool to sell to. The market is dominated by punch drunk speculators.**
- **Bitcoins and other crypto tokens don't meet the requirements of a currency and are closer to trading cards or in-game virtual objects that only have market prices due to a devoted fan base and false scarcity.**
- **Bitcoin is the perfect asset for a speculative bubble: it has no intrinsic value so it can't be objectively assessed, it has a complex and compelling story, it's global, and it's the perfect anti-establishment tech for the times. Because of this, bitcoin probably still has a way to rise.**
- **Bitcoins should not be bought as a long-term investment but instead traded on a purely technical basis.**
- **Liquidity and technicals are the only forms of useful analysis to use on the crypto market simply because they help identify regimes where there's likely to be increasing or decreasing Fools to sell into.**

As for the future of the crypto and blockchain market in general, I think Matt Levine of Bloomberg has the best take. Here it is:

Look, I know I sound like a cryptocurrency/blockchain skeptic. I guess I am one, fine. But Walmart's mangoes are being tracked throughout the supply chain in an auditable distributed database that makes them much easier to follow than previous methods did. A syndicated-loan blockchain probably will work better than the current system of transferring syndicated loans by, like, faxing signature pages. "Tokenization" of some transactions or ownership interests will probably turn out to be useful, and might change how the markets for digital advertising or cloud storage or housing or whatever work.

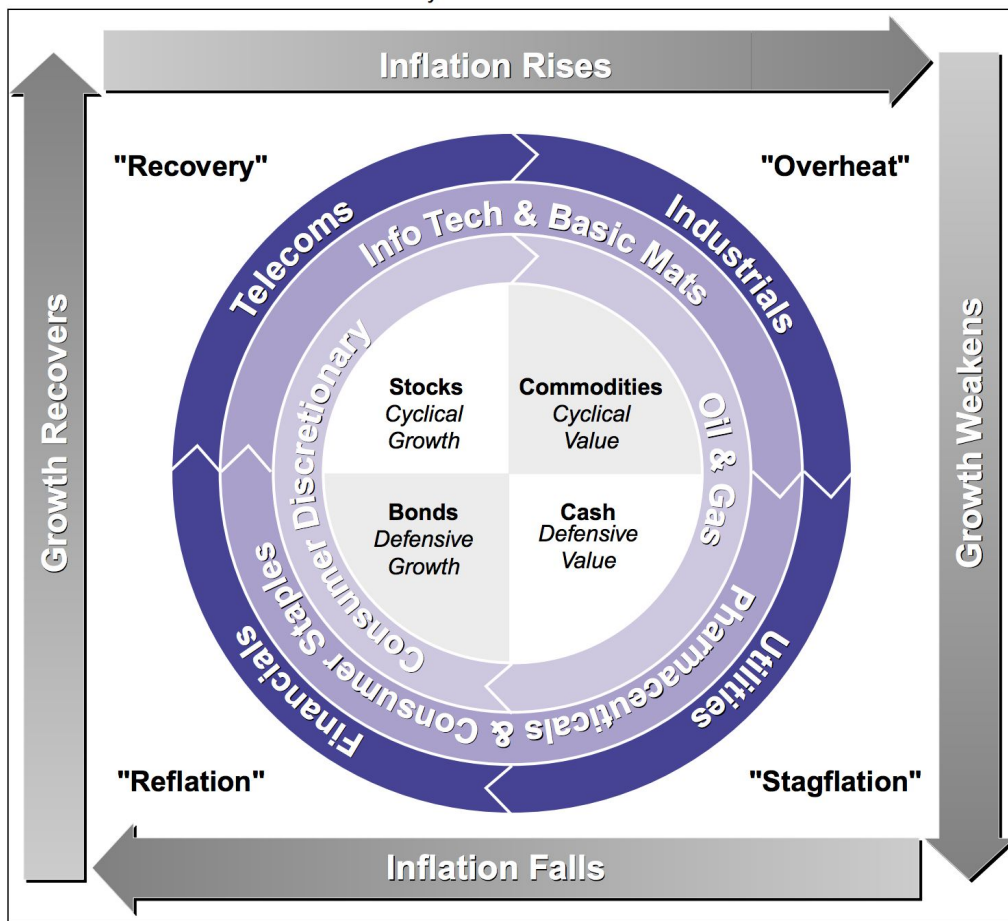
But the way I like to think about it is that cryptocurrency might be to the 21st century what stock was to the 17th century: an administrative change in the bookkeeping for ownership of certain assets that over time completely transformed the economy and the world, with a power that the early innovators could hardly have dreamed of. But also, the first like 300 years of the history of stocks were filled with hucksters and hype and bubbles and disaster. Cryptocurrencies and blockchain really could be revolutionary technologies that will ultimately pervade every aspect of the economy, even while almost every individual project could be nonsense.

Macro: Reflation Continues

Data continues to confirm our reflation thematic and points to a recovery in commodities and cyclical value stocks.

The major macro thematics we've been writing about over the last several months have been (1) the transition to Phase 3 (aka, the Overheat Phase) of the business cycle, in accordance with the [Investment Clock framework](#) and (2) the beginnings of a [long secular tailwind for global commodities](#) as the world sees the size of the 'middle class' increase to over 4 billion people over the coming decade — more than any other time in history.

Chart 1: Asset and Sector Rotation over the Economic Cycle



Source: ML Global Asset Allocation Team.

Both thematics suggest significantly higher prices ahead for commodities. **Commodities and cyclical value stocks are the best performing assets in the overheat phase, while bonds and cash are the worst.**

The entrance of a large portion of the global population into the middle class on a GDP per capita basis equates to exponentially increasing demand for commodities in the decade ahead.

At the same time, commodities are priced at historic lows relative to financial assets. And records amount of investment into future production have been cut across the commodity sector over the last 5-7 years.

Chart 1: 100 Years of Commodity Valuation



(1) Goldman Sachs Commodity Index to 1970. Goebing & Rozenovajg Commodity Index pre-1970.
Source: Bloomberg, Goebing & Rozenovajg Models.

The 'Overheat Phase' is predicated on the trend-line growth of both GDP and inflation. When both these inputs are positive, meaning they're trending higher, it confirms we're in the overheat phase and commodities, as well as cyclical value stocks, should be the best performing assets.

Expecting higher trend-line GDP growth and above trend inflation is definitely not a consensus view. In fact, the market's consensus is closer to the opposite. The dominant narrative is to expect continued sub-par GDP growth and below target, or even falling, inflation.

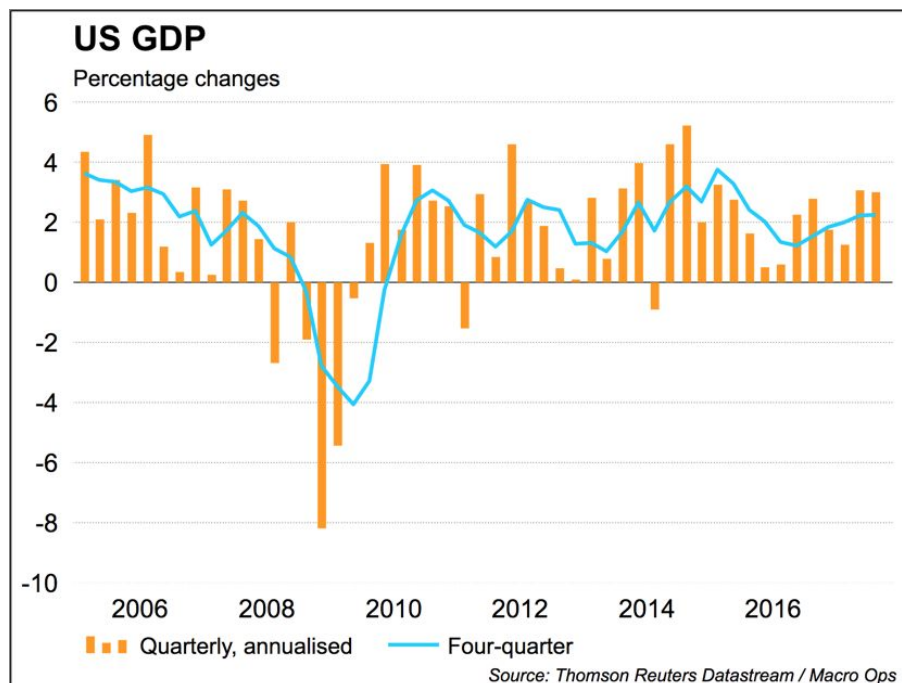
The more widely adopted a narrative is, the longer it lags changes in the underlying data. This is because strong narratives affect biases which drive [cognitive dissonance](#); blinding people to changing fundamentals. This is how the market ends up being caught wrong footed at macro turning points and we see subsequent violent reversals in price trends.

The same thing is happening now. The market continues to price in lower for longer inflation along with mediocre GDP growth even though the data is beginning to confirm our thesis.

Here's a quick look at the numbers:

GDP trend-line growth is picking up around the world.

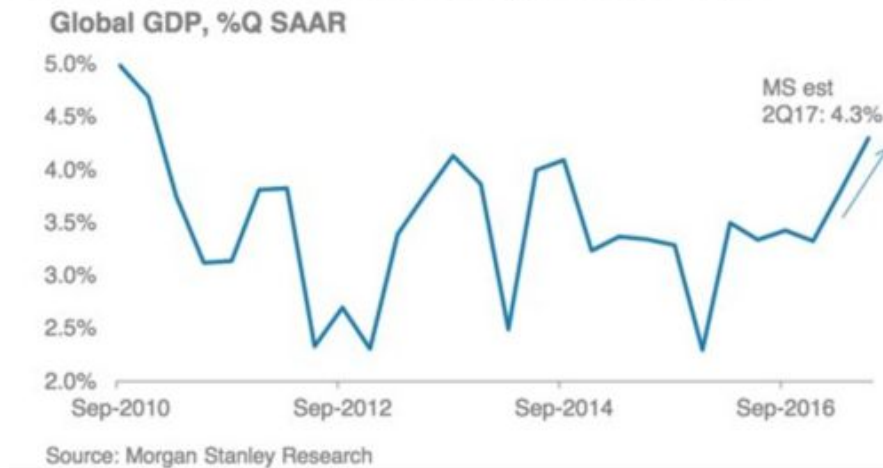
The US economy expanded at an annualized 3 percent rate in the most recent quarter. This is only slightly below the previous quarter's growth rate of 3.1%, which was the fastest pace on record since the first quarter of 15'. And this is despite the major economic disruptions caused by Hurricanes Harvey and Irma.



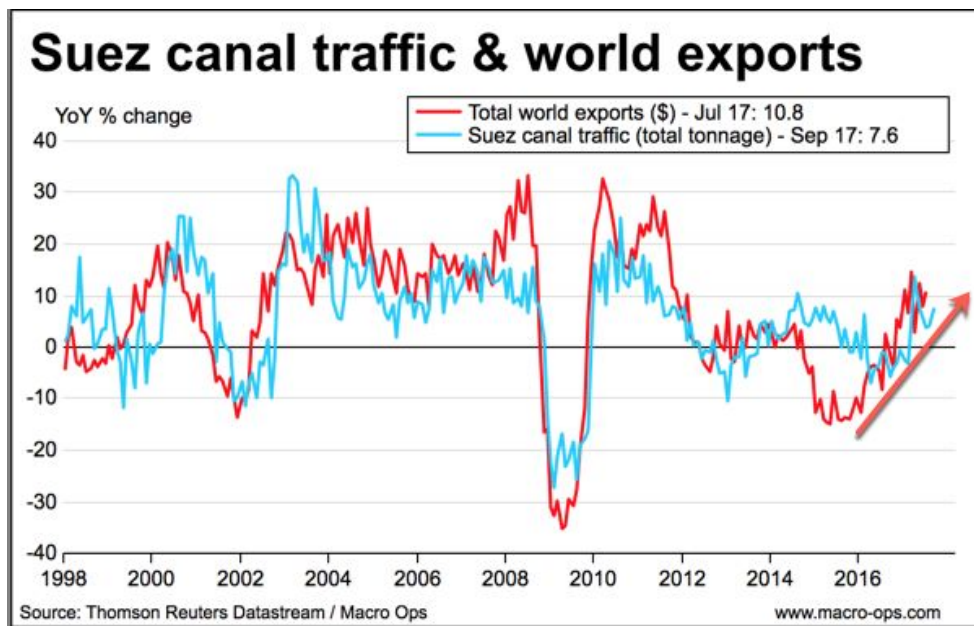
The pickup in growth isn't unique to the US either.

The entire world has rebounded off its lows from the early part of last year. Global GDP growth is now the strongest it's been in seven years.

Global GDP at 4.3% in 2Q: Strongest Since 4Q10



And subsequently, world trade is now the highest it's been in over six years.



This pickup in growth is being confirmed by upward trending global PMIs, which are also hitting their highest levels in over six years.

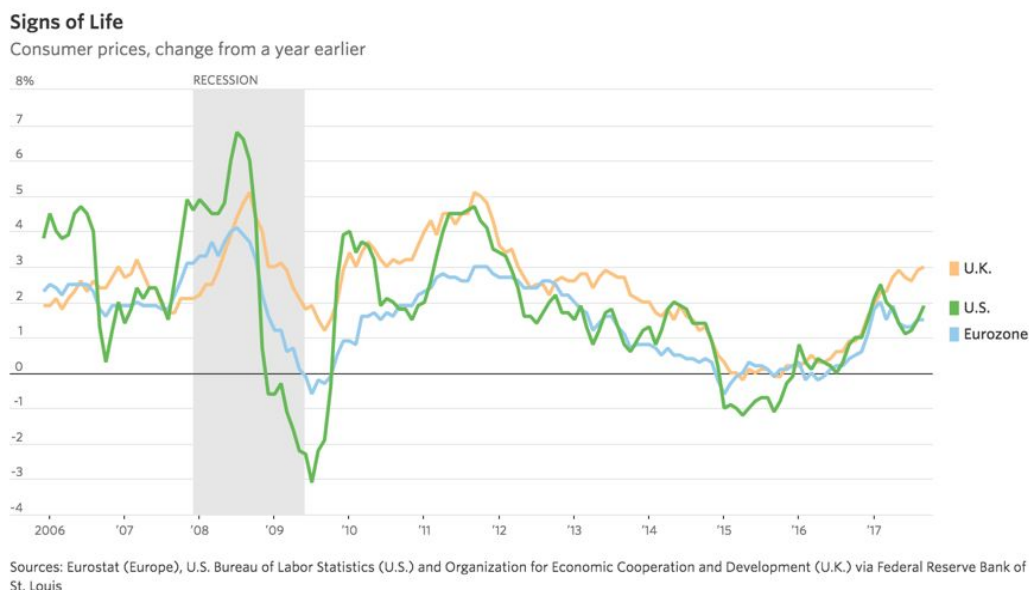
Excerpts from the latest Markit PMI report say things like: *Manufacturing production rose at the quickest pace in six months... The continued upturn in new order inflows exerted further pressure on capacity, leading to one of the steepest increases in backlogs of work over the past three-and-a-half years.... Input cost inflation rose sharply to a seven-month high, a key factor underlying the steepest increase in selling prices since May 2011.*

To summarize: GDP growth in the US and around the globe is strong and trending higher.

Also, inflationary pressures are building and will lead to higher trend inflation in the coming quarters.

As the PMI report stated, “Input cost inflation rose sharply to a seven-month high, a key factor underlying the steepest increase in selling prices since May 2011.”

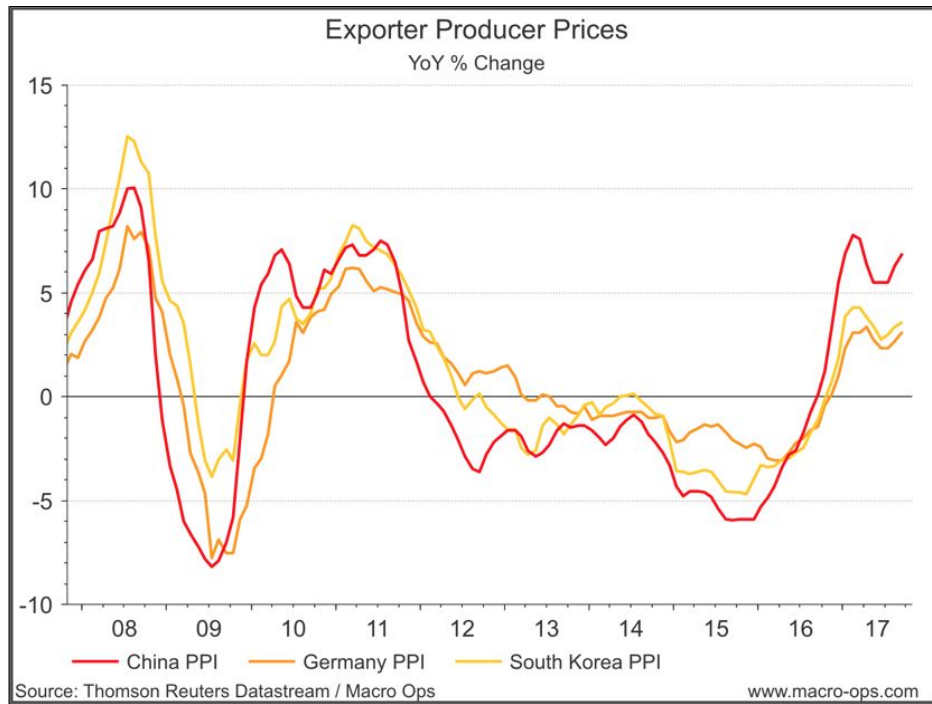
CPI is trending up across developed economies:



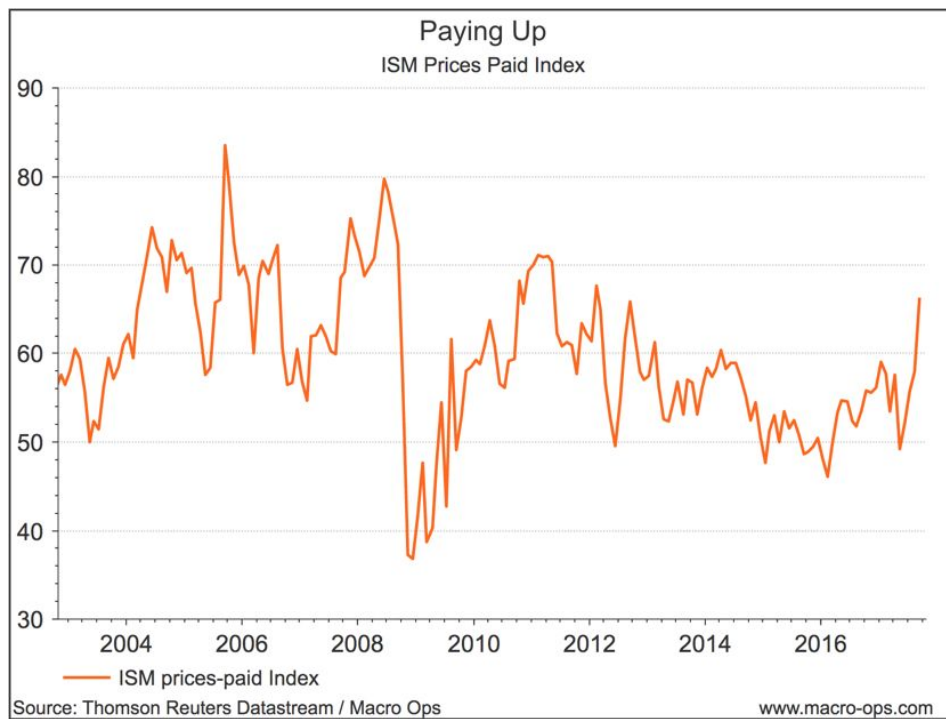
But the market is still attached to the “stagflation” narrative and is only begrudgingly awakening to our reflation thesis.

This is especially true in global bond markets where yields remain at stupidly low levels.... There’s going to be a lot of pain in the bond market in the year ahead. The underlying inflation numbers suggest this trend has legs.

Producer prices from the major export economies of China, South Korea, and Germany are strongly trending higher.



The ISM prices-paid index has gone vertical and is now at levels last seen in 2011 when CPI in the US was above 4%.



And the NY Fed's new Underlying Inflation Gauge (UIG) (which uses a large number of disaggregated price series in the CPI to capture sustained movements in inflation) is at its highest levels since 2006!

Consumer-price index and Underlying Inflation Gauge (UIG) measures



Note: The 'prices-only' underlying inflation gauge is derived from a large number of disaggregated price series in the consumer price index. The 'full data set' measure incorporates additional macroeconomic and financial variables.
Source: Federal Reserve Bank of New York

Anecdotally, there's increasing talk in earnings calls of inflationary pressures building.

The following is from Avondale Asset Management which puts out a great weekly note during earnings season summarizing the main talking points from the many calls they listen to. Here's their most recent take:

It's increasingly obvious from conference calls that inflation pressures are building in the economy. Management teams in a wide variety of industries are talking about rising input costs and a "very, very positive pricing environment" in 2018. For whatever reason, securities prices suggest that most people don't believe that the inflation will sustain itself, but at some point the weight of the anecdotal evidence should make its way into economic figures. If that surprises the market and policy makers, there could be a very significant reaction.

And here's a few notes from recent 3rd quarter earnings calls (emphasis mine):

I mean obviously we're in a bit of an inflationary environment for some of the commodities...overall we've probably been more challenged on the cost side this year than we've seen in a while. — Honeywell (Industrial)

The core underlying market we're facing for raw materials is certainly toughening. — 3M (Industrial)

Our commodity inflation estimate has increased somewhat from 3 months ago... In terms of the inflationary pressures that we see... it is stronger inflation than we were expecting — Kimberly Clark (CPG)

Lumber was on an upward trend even before some of the catastrophic natural disaster events that we've seen over the last 60 to 90 days. So that's the one that I think we all need to be paying attention to for 2018. I think the premiums that are being paid for labor in Houston and Florida that will subside in time. The lumber impacts could be longer lasting. — Pulte Home (Homebuilder)

We knew we'd see higher pulp cost going into year, these costs have continue to increase beyond initial forecast ranges. Ethylene, propylene, kerosene, and the polyethylene and polypropylene resins have increased recently – Procter and Gamble (CPG)

To summarize: All signs point to higher inflation over the coming year. The market is not positioned for this. There will be drastic consequences when it wakes up to this fact and a new narrative is adopted.

With both higher trendline growth and inflation coming around the bend, we want to continue to position ourselves for Overheat phase dynamics.

This means we want to be long select commodities and cyclical value stocks and short bonds and bond like instruments.

Here's how to play the reflation trade.

In the [September MIR](#) we laid out the case for going long oil and gas stocks.

We took the contrarian view that due to the cyclic drivers discussed above, in addition to a large reduction in global CAPEX in the energy space over the last 4 years, we are entering a supply constrained environment with quickly growing demand. And this is going to lead to higher oil prices.

The curve in the crude complex is returning to backwardation which means inventory levels are normalizing and near-term demand is picking up. This is a very healthy signal for oil and a good sign for our long energy play.

Exhibit 7: Return of backwardation - A normalization in inventories has driven a return to positive carry for oil



Source: IEA, EIA, Bloomberg, Goldman Sachs Global Investment Research

WTI crude has risen above \$54/bbl and is close to breaking out above a critical multi-year resistance line in the \$54-55 level.



In September, we discussed spreading our bets across a basket of energy stocks, while cutting the laggards and adding to the winners as the theme developed.

The basket we created included the energy names ESV, RIG, COG, and CRR. We put the trade on shortly after we released the MIR and also included the stock WTI.

This basket of stocks has since risen over 13%, more than 3x the run of the S&P over the same timeframe.

We believe this is just the beginning of the move. **Once the market latches onto the new global deflation narrative, there's potential for these energy names to appreciate by multiples over the coming year.**

With that said, we continue to be patient. Trading bottoms and major turning points are volatile and difficult. This is why we have to size correctly and wait for the trend to develop before building into a larger position.

The same goes for our long agriculture theme that we covered in the [October MIR](#). Out of the three agriculture stocks we reviewed — AGRO, SANW, IPI — we currently only have a position in one of them (IPI). We still like the potential for all three stocks but it's going to take some time for the trade to develop. So we're waiting for confirmation in the tape first.

And we may have to wait a bit longer because...

The broader market is extended and there are growing risks.

Trump is expected to announce his pick for the Fed chair this week.

The front runner looks to be Powell. He currently sits on the FOMC and wouldn't be a huge departure from Yellen's stewardship. If anything, the market might interpret him as being slightly *more* dovish.

In the near term, this would likely result in a dollar down, bonds / equities up market response.

Over the longer term it wouldn't change much.

One interesting thing to point out is the growing belief among academic economists that 2% inflation is too low of a target.

Paul McCulley, who is a professor at Cornell and a former chief economist at PIMCO, recently said this in an interview with the *NYT*:

There is now a not-so-silent consensus in our community that, in light of experience since the 2008 financial crisis, 2 percent is too low, as a fundamental economic matter. It is too close to zero, implying that in times of recessions, the Fed will have too little room to respond with countercyclical easing, running into the zero lower nominal bound for its policy rates, preventing a needed larger fall in real rates.

People like McCulley run in the same circles as members of the Fed. And groupthink amongst these people is rampant. If McCulley is saying there's a growing consensus that 2% is too low, then we should pay attention.

I think it's unlikely that the Fed would raise its inflation target this cycle (probably next) but this type of thinking does make it more likely that the central bank will continue to hike rates at a slower pace than what they're forecasting.

Just some food for thought.

China recently concluded its 19th Congress.

We wrote back at the start of the year that China would keep liquidity loose and markets calm up until this Congress was over. It was very important to Xi to maintain stability while he worked to consolidate his power over the party.

We went long Chinese A-shares when they were hated. Today there are one of our largest holdings.

Now that the Congress is over, is the bullish case for China still valid?

There's no way to know. China and the CCP especially, are a black box. It's extremely difficult to disentangle the things they say, from what they mean, and what they're likely to do.

Because of this, we prefer to focus on what the data is saying. And it continues to point to higher growth. And so we'll continue to position accordingly.



The one thing you don't want to do is overreact to everything you hear out of party leadership. It's one thing to talk tough about cracking down on the shadow banking sector to deleverage the economy, but it's absolutely another to go ahead with the politically unsavory reforms and do it.

The S&P has been on a tear this year. It's now up over 13% and has risen with near zero downside volatility.

There are signs that market sentiment is notably picking up and becoming somewhat frothy. Expectations are high and positioning is crowded in the FOMO stocks of the day, most notably the FANGs.

At some point in the near future we'll see the return of volatility and experience a selloff in excess of +3%. The return of volatility is typical in the overheat phases of the investment cycle.

It's likely that as inflation picks up and our narrative gains traction within the market, bonds, which have just recently broken down, will continue to sink. This will drive yields higher.

If there's one thing that richly valued high multiple stocks don't like, it's fast rising yields. Bonds and stocks compete for capital and higher yields make them much more attractive while at the same time making high equity valuations tougher to justify.

Later on in the quant section we'll talk about a zero carry hedge that can be used to defend against the potential sharp pullback.

Summary:

- **Data continues to confirm our reflation thematic and points to a recovery in commodities and cyclical value stocks.**
- **To play this theme, we're looking at both oil (ESV, RIG, COG, CRR, WTI) and agricultural (AGRO, SANW, IPI) stocks.**
- **But we're being patient because the broader market is extended and there are growing risks.**
 - **Trump is expected to announce his pick for the Fed chair this week and we don't know how the market will react.**
 - **China recently concluded its 19th Congress and we don't know if they'll continue to be so accommodating to the market.**
 - **The S&P is up over 13% this year with zero downside volatility. Sentiment is becoming frothy.**

Micro: DOTM Calls

Recently, we've explored possibly expressing our equity views with deep, out of the money (DOTM) options over plain vanilla stock. One of our Operators in the Collective has been doing this the whole year and has been killing it. The returns on the winners can be massive — in the 10-20x range.

For example, take our recent pick from the [August MIR](#), Interactive Brokers. The stock has shot up 32% since we recommended it — not a bad gain over just two months.



But if you would have bought the March 2018 calls struck at \$49 for \$.30 at the same time, **you'd be up 20x as those calls are now selling for \$6.10.**

A 20x winner makes up for a lot of losers... which is why this is such an interesting strategy.

Greater return to risk asymmetry is the only advantage, either.

In the later innings of a market cycle, like we're in now, hot stocks tend to gain momentum and have a tendency to turn parabolic. These steep moves bring in the FOMO chasers and then the stock eventually turns and wipes out months' worth of gains. It's these sharp washouts that keep a lot of traders from buying into strength.

But by using calls, that washout risk isn't an issue since you're only on the hook for what you pay in premium.

The key in buying these out of the money calls is selecting the right expiry. Short-dated options are notoriously overpriced. You're better off selling those options than buying them.

But the long-dated options (6 months+) tend to be more reasonably priced on the stocks with great technical and fundamental momentum.

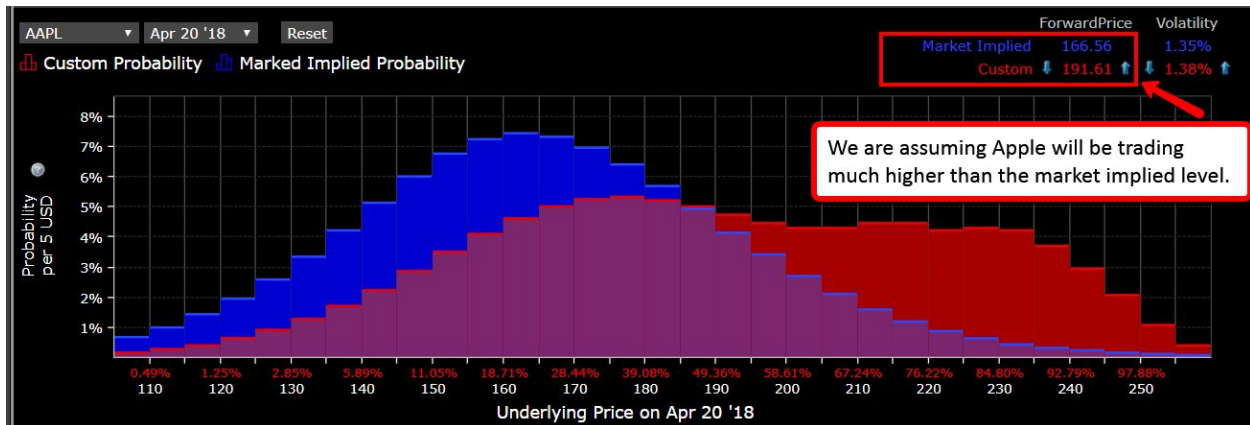
This is because the Black-Scholes model assumes that all stocks have an equal chance of going higher as they do lower. The math behind Black-Scholes implies that trends don't exist and that day to day fluctuations are random.

Take a look at the probability distribution for April calls on Apple stock below. The pink shaded area represents the likelihood that Apple falls into that particular price range by expiration. You can see that it's fairly symmetrical. The amount of shading on the right is about the same as the amount to the left. Also note that the market implied forward price is right near the price that Apple is currently trading.



Now let's say we believe Apple actually has positive price and fundamental momentum. We believe trends exist and that Apple will continue its uptrend higher over time. If our assumption is true, the probability of the stock moving higher than it is today is much greater than what the above distribution implies.

The correct distribution should instead look something like this:



The red shading represents the probability of Apple reaching those prices if we assume that the current trend persists. The difference between the red and the purple areas are what we call [edge](#).

The market is implying a low probability of higher prices while we think the likelihood is significantly higher. We can buy the out-of-the-money calls in this situation and show a profit over time.

Also notice that the “custom” forward price is higher than the market implied price. The option market always assumes no trend — and in this hypothetical example, we think otherwise.

It’s important to understand that these edges, i.e. the discrepancy between the red area and the purple area, are more likely to occur in options with more than 6 months left to expiry. Long-term momentum is a factor that the options market regularly misprices.

By buying long-dated DOTM call options on stocks, you have a position that will slowly add exposure as the stock moves your way. Think of it as a little trading assistant who automatically adds to winners. This positive convexity is what creates the outsized returns like we saw with IBKR this year.

Now with the theory out of the way, we’re going to lay out our favorite stocks that we can use this option strategy on...

JD.com (JD)



Company Profile: JD.com (JD) is China’s Amazon. It’s the third largest online company in the world in terms of revenues, behind only Amazon and Google, and ahead of Facebook. It’s an online direct sales company and unlike Alibaba (BABA), JD owns and operates its entire supply chain (which is now massive). The company operates approximately 210 warehouses with an aggregate gross floor area of approximately four million square meters in over 50 cities. It operates over 5,370 delivery stations and pickup stations in approximately 2,350 counties and districts across China.

What The Market Is Pricing: JD trades at just 13x TTM free cash flows and 1.1x TTM sales... even though it has a strong balance sheet and has averaged annual revenue growth of 65% over the last three years. BABA on the other hand, trades at 16x revenues and 33x free cash flow and AMZN trades at over 3x sales and 53x FCF, even though JD is seeing greater sales and cash flow growth than both.

Why the discount for JD then?

JD has never turned a profit. The reason being is that it has reinvested its cash flows back into the company; similar to AMZN's playbook. But the market's low valuation for JD appears to be entirely due to the lack of earnings. The founder and CEO also keeps a much lower profile than BABA's Jack Ma and so the stock gets less notice.

Our Take: The market is being myopic and not seeing the forest from the trees. By reinvesting its cash back into growth opportunities the company is strengthening its increasingly large competitive advantage. The company is run by a visionary Founder/CEO, Liu Qiandong, who is often referred to as the Bezos of China. I think JD has the potential to become one of the largest tech companies in the world. At the very least it should see its stock rise by a few multiples so it's fairly priced on a relative basis to its peers.

We've been watching this stock for a while, waiting for the technical picture to set up. More specifically, for the stock to close the gap it made back in May. It finally did just this last week and now provides an opportune entry.

Chesapeake Energy Corporation (CHK)

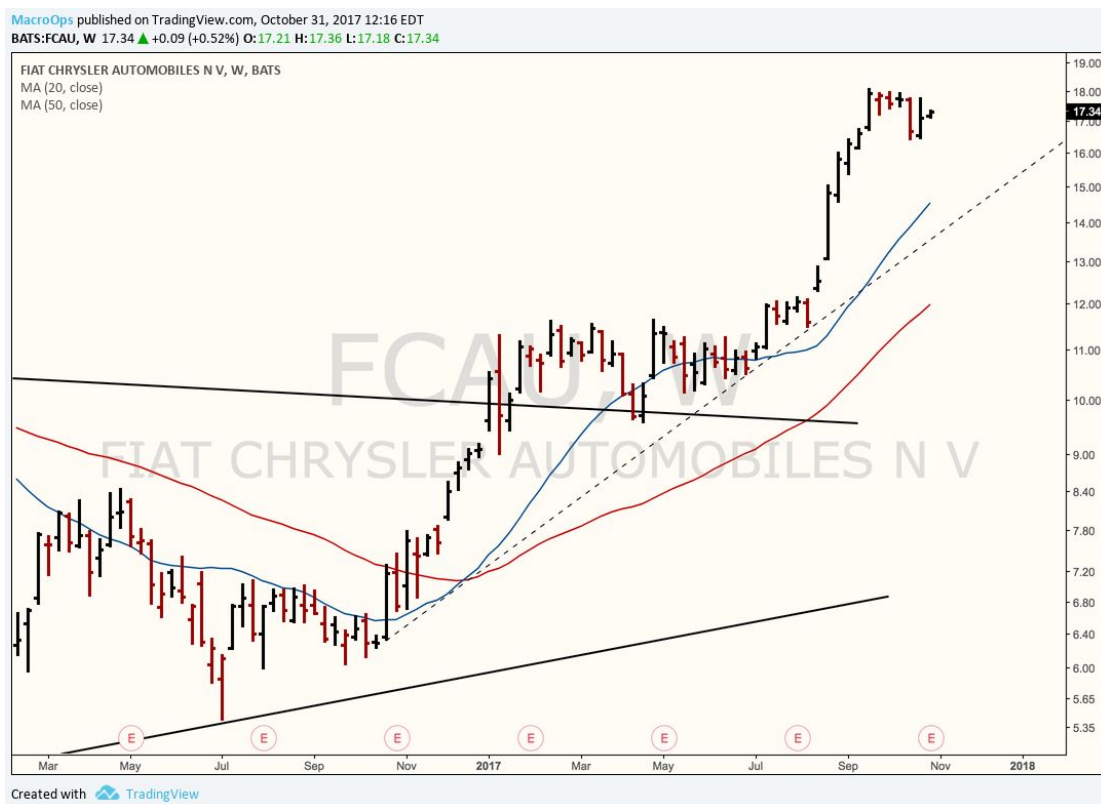


Company Profile: Chesapeake Energy Corporation (CHK) produces oil, natural gas, and natural gas liquids in the US. It owns interests in approximately 22,700 oil and natural gas wells in Eagle Ford, Utica, Anadarko Basin, Powder River Basin, and the Marcellus Shale.

What The Market Is Pricing: The company, along with the rest of the energy sector, has been hammered over the last three years. Similar to the other oil and gas names we pitched in September's *MIR*, CHK is macro trade. The market is not pricing in our global reflation scenario. The "Death of the Internal Combustion Engine" narrative is still strong and weighing down energy stocks — CHK being one of them.

Our Take: We're bullish oil. WTI crude is close to punching through a critical resistance line of \$54-55/bbl. Now is a good time to begin slowly adding to our long energy trades. CHK is a larger cap energy stock (\$3.5B) with a liquid options market. The stock has also seen significant amounts of insider buying this year which is always a good sign. Adding DOTM CHK calls to our book will provide us with some optimal risk/reward leverage in playing our energy recovery theme.

Fiat Chrysler (FCAU)



Company Profile: We first pitched Fiat Chrysler (FCA) the auto maker back in our [April MIR](#). This was a deep value play that the market was horribly mispricing. The stock has risen over 80% since.

What The Market Is Pricing: The market has been bearish on automakers over the last few years but price action in all the big names is starting to look constructive. In Fiat's case, the market completely missed the value case at hand which was apparent to anyone who took the time to look into the company.

Our Take: Even though FCA's stock has risen significantly since the start of the year, the company remains underpriced, by a lot. Here's a short explanation from hedge fund manager Scott Miller of Greenhaven Road:

In 2014, the company's five-year plan outlined significant investments that would lead to the accumulation of a significant (€5B+) net cash position by the end of 2018 plus the generation of €9B in EBIT, up from €7B this year and €3.8B in 2014. Sergio has had dozens of chances to walk back the 2018 plan and push it out a year or two. However, he publicly confirmed the forecasts as recently as two weeks ago at a Ferrari event. One reason he may have reconfirmed the plan is that it was built on the U.S. new car market of approximately 16M units (SAAR), which will likely prove conservative for 2018 given the current run rate and the replacements from hurricanes.

Sergio has also indicated that Fiat is working on spinning off the parts business, which grew revenue in excess of 10% last quarter and generated a full-year run-rate EBIT of in excess of €500M. If we put an 8x multiple on the parts business, the spinoff should be worth €4B. Add that to the anticipated net cash of €5B, and we are left with a core auto business that, according to the plan (which may be conservative), will generate €8B+ in EBIT next year. FCA's share price is currently below €15. At the end of 2018, the cash and parts business should represent €6+ per share of value and the core business should add a bit over €5 EBIT per share if it generates €8B in EBIT overall. So, if the plan and the share price both hold, Fiat's core business, ex-parts and cash, will be trading below 2x EBIT. Of course, the plan may not hold and this math exercise may prove useless, but if they come anywhere close, there remains an enormous amount of value in Fiat Chrysler. Additionally, as the balance sheet strengthens, buybacks or dividends become real possibilities and the company would be an accretive acquisition to any number of manufacturers.

Also, Fiat's CEO Sergio Marchionne is the best capital allocator in the auto industry. He's a good jockey to back and Fiat's current valuation provides a good margin of safety to do it. This makes for a perfect DOTM play, especially with the current technical setup of a multi-week bull flag forming.

Trip Advisor (TRIP)



Company Profile: TripAdvisor (TRIP) is the online travel marketplace and review site. We've covered this company extensively. The company's website features nearly half a billion travel reviews on over 7 million locations and 1M+ hotels etc.... and sees over 400M+ in unique users per month. This audience has grown at a compounded annual rate of 18% over the last four years. This makes it the number one travel app in the world, where the global travel spend is around \$1.3T.

What The Market Is Pricing: Similar to JD.com, the market is focusing solely on short-term earnings sans any of the important context that's behind the numbers. Because of this, short interest is nearly 20% of the float and the stock continues to flounder. We recently held a small starter position but were stopped out.

Our Take: The company has an amazingly valuable product. I travel extensively around the world and use the Tripadvisor app and website exclusively when I do. Its catalogue of reviews is priceless and gives the company a large moat. TRIP has been slow to monetize its product as it has been focused on growing its core user base over the last few years. But this is now changing. The company is transitioning its business model from one of selling advertising to the

likes of Expedia and Priceline, to allowing users to book directly through the company's site and app itself.

This transition has resulted in a short-term disruption to top and bottom line growth, but I have high confidence they will be successful in meeting their longer-term goal of becoming the premiere booking app for hotels and activities. This also makes the company an extremely attractive buyout target to a number of suitors.

Quant: A Zero Carry Hedge

Staying long and strong in a late stage market can be extraordinarily profitable, but it comes with a unique problem. We call it the “momo washout.”

A “momo washout” is a one day down move that erases multiple weeks’ worth of gains. Here’s an example of it in the NASDAQ.

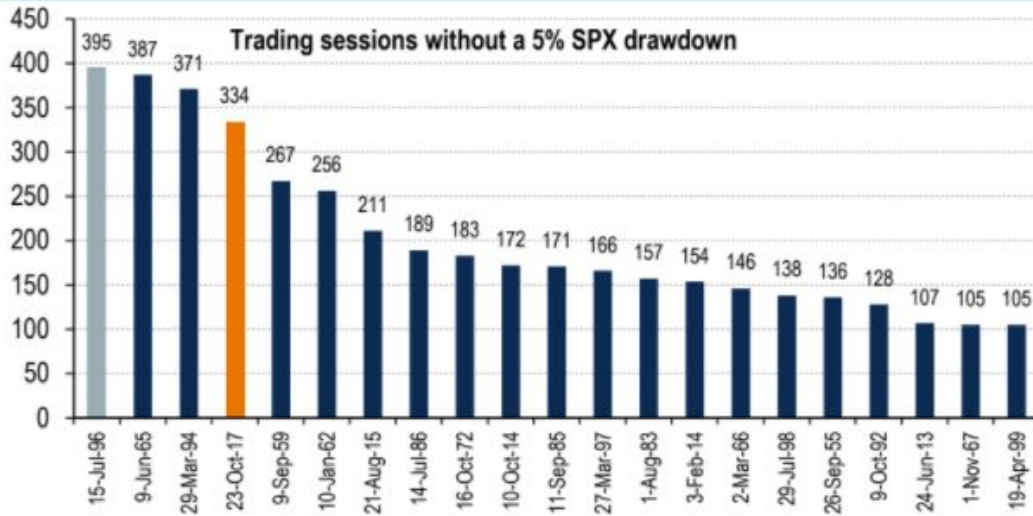


Momo washout moves occur when markets become overbought and overleveraged

We’re seeing overbought and overleveraged conditions right now in the S&P 500.

The SPX has been bought so aggressively in the past year that it hasn’t even had a 5% drawdown. If strength continues like this for the next 60 trading days, **it will become the longest streak going back to 1928.**

Chart 7: The S&P has gone 334 sessions without a 5% drawdown, the 4th longest streak in history (1928)



A byproduct of no drawdowns is volatility compression. You can clearly see this in the chart of the VIX below.



With a bunch of eager momentum buyers foaming at the mouth for the next chance to get on board, ranges cannot expand. Down moves are met with a wall of buying that pushes prices right back up to highs.

Volatility compression creates real dangers in today’s markets because of the large number of funds that use “vol targeting” or “risk parity” techniques in their trading.

These styles of risk management add more leverage as markets compress and then take that leverage away as ranges expand again.

Since ranges have been compressing for the last year, traders using risk parity or vol targeting have been adding leverage in order to keep a constant portfolio volatility level.

Bank of America keeps track of the basic CTA and risk parity systems commonly used in the investment industry. Because SPX has had such a high trend to volatility ratio, they estimate that most CTAs and risk parity funds are largely overweight equities.

Chart 14: The typical CTA is now likely long global equities with shorts in some bonds and commodity assets

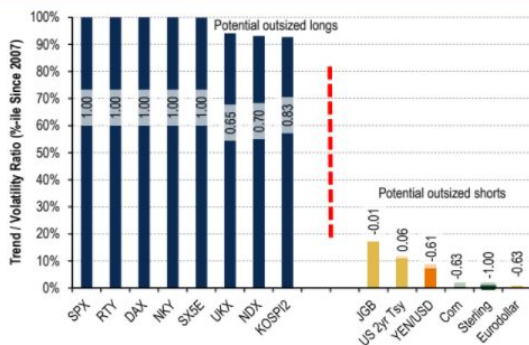
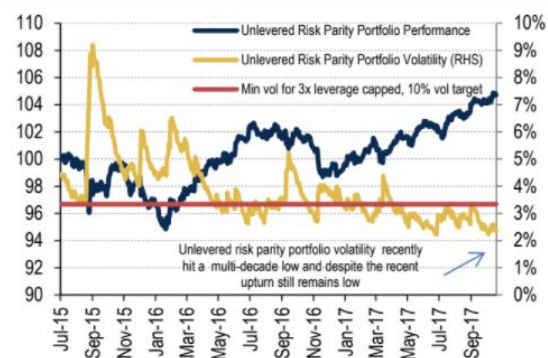


Chart 15: Historically low volatility of risk parity weighted multi-asset portfolios implies potentially elevated levels of leverage



If there is one thing we’ve learned from market action in 2017, it’s that lopsided positioning will inevitably lead to a washout the other way.

Positioning alone can’t create a sharp selloff out of thin air. Momentum driven players only sell on weakness. There needs to be a catalyst in play that can push the market down first. Only after the initial push will the CTAs and the risk parity guys start to peel back positions.

I’m not going to try and spin a bearish narrative out of thin air. There’s not much to be bearish about in the short-term.

But there’s a key event that will come back to the forefront going into early December — the debt ceiling.

Remember that? It never went away. It was only delayed in the wake of Hurricane Harvey. Trump struck a “gentleman’s agreement” with the Dems and kicked the can down the road until December 15th.

They will probably get a deal done and avoid shutdown, but it's unlikely to be easy.

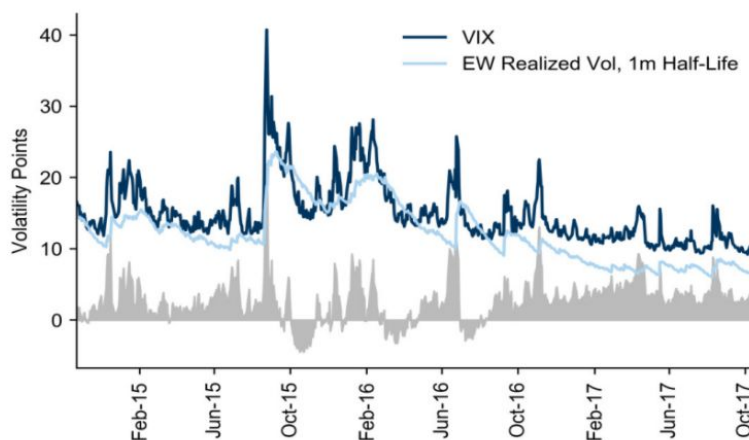
This pre-deal apprehension will inject uncertainty into the markets and put a bid behind VIX along with selling pressure on the S&P. This flow could trigger the systematic unwind from the trend followers and risk parity crowd, creating a swift one day washout.

Knowing that washout risks exist is the easy part. Actually structuring a trade to monetize the potential move is the tough part. Traders have been trying to buy downside puts all year in the SPX and have consistently lost money.

This is because the options have been overpriced compared to what has played out. This is shown in the chart below:

Exhibit 2: The VIX has been at a consistent 2+ point premium to realized volatility throughout 2017 even though vol selling strategies have grown

Spot VIX index and exponentially-weighted SPX realized volatility; shaded area indicates expected implied-realized volatility risk premium



Source: Goldman Sachs Global Investment Research, Bloomberg

This makes it hard to win even if you're right because of how much extra premium has been pumped into the options.

We have a better way to structure the trade.

By shorting puts on VIX, we can finance a long VIX call without paying any time decay.

As of this writing the VIX 10.5 puts expiring in December are selling for \$.45. A seller of those puts does not start losing money unless the VIX passes 10.05 at expiry. That's a great deal

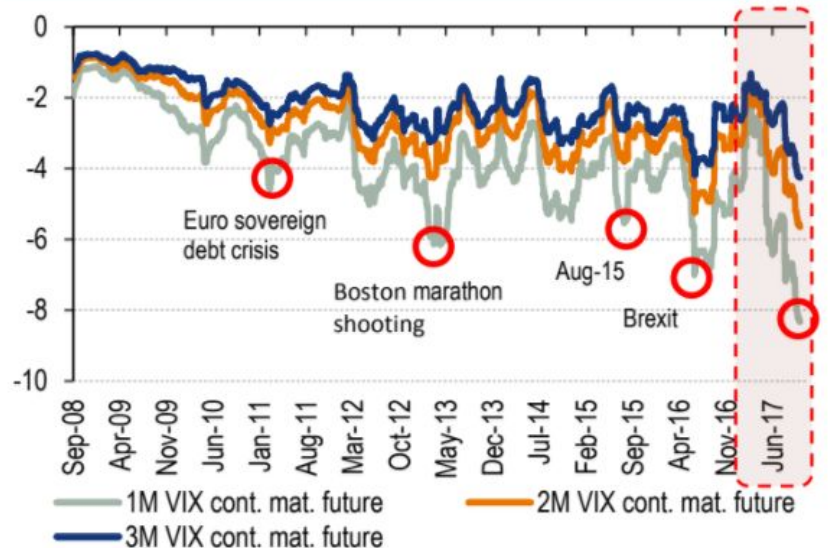
considering the lowest settlement value of 2017 has been 10.11. **And the lowest settlement value since the creation of VIX derivatives has been 9.95, which occurred in Feb. 2007.**

Although anything can happen, it's virtually impossible for the VIX to stay below 10 for long. Market makers on the SPX don't like inventorying a bunch of cheap options. It's a recipe for a blow up.

If you sell two of these VIX puts you'll have \$.90 to spend on something that will profit if the SPX has a washout day.

In our opinion, VIX calls are a much better downside bet here than the SPX puts. That's because low absolute levels of volatility have created a super sensitive VIX. The beta of VIX futures to SPX has hit a new record since the financial crisis. The front month has been clocking in at a -8 beta. During the European debt crisis that number was only -4.

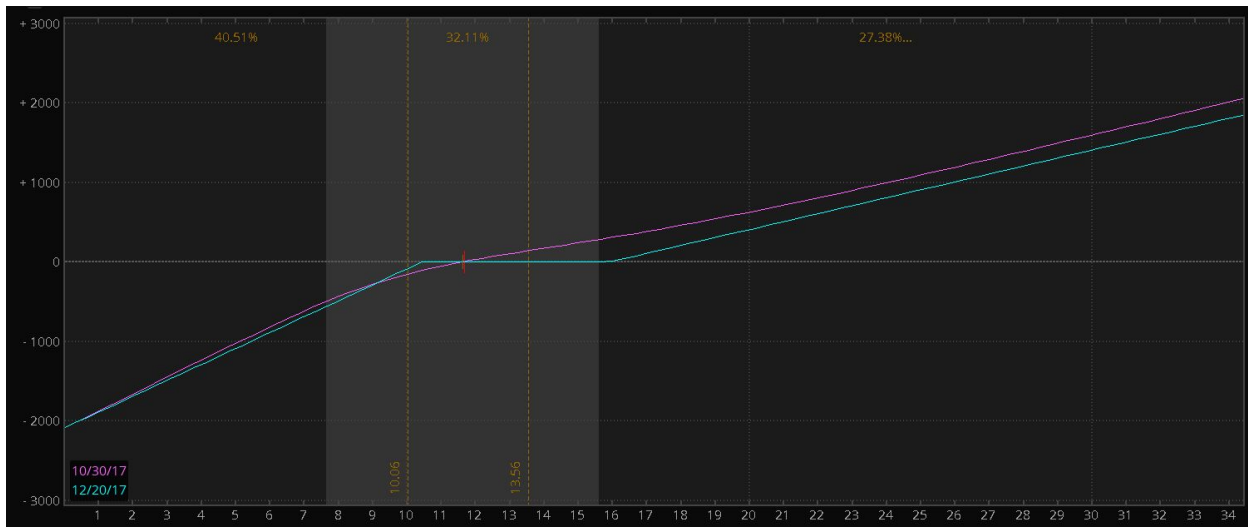
Chart 17: The beta of VIX constant maturity futures to SPX has increased during equity selloffs, setting records since '08 in 1M futures



Source: BofA Merrill Lynch Global Research. Data from 16-Sep-2008 to 20-Oct-2017.

If you've noticed how "spikey" VIX has felt throughout the course of 2017, you've picked up on this record negative beta.

With \$.90 of premium from the VIX puts you can buy a call struck at 16 expiring in December. Together the structure will produce a payoff profile that looks like the chart below.



The only losing scenario here on the trade is if VIX expires below 10. And we know statistically speaking that's super rare.

If any spike in VIX happens between now and mid-December, there will a fantastic opportunity to take profits and monetize the momo washout.

Here's the exact trade structure again for clarity.

2x Short VIX 10.5 Put Expiring on December 20th for \$.45
1x Long VIX 16 Call Expiring on December 20th for \$.90

If the market continues to defy gravity into the end of the year and the VIX hits 10 at expiry, this trade will only lose about \$110 per spread. Any spike up in VIX will yield multiples of that, so not only does this trade carry well, it has a great risk/reward ratio.

To be clear here — we're not expecting a huge vol eruption that will play out over a few weeks. Liquidity is still flowing strong and fundamental data has been continuing to strengthen. This washout, if it occurs, will be swift. Be quick to take profits if it occurs.

Summary:

- **The combination of trend strength and low vol has created lopsided positioning in the SPX**
- **The debt ceiling issue can catalyze an unwind of this leveraged positioning**
- **By shorting VIX puts to finance VIX calls, we can create a zero carry option structure to monetize a potential momentum washout**
- **We like selling 2 VIX 10.5 Puts in Dec to finance one VIX 16 call in Dec**

Asset Allocation

Asset Allocation Weightings	Underweight	Neutral	Overweight
EQUITIES			
Large Cap Growth		x	
Large Cap Value			x
Small Cap			x
Mid-Cap			x
International Equity			x
Emerging Market Equity			x
<i>Cyclical</i>			
Materials			x
Gold		x	
Commodities			x
Consumer Discretionary		x	
Financial Services			x
Real Estate, Domestic		x	
Real Estate, Global		x	
<i>Sensitive</i>			
Energy			x
Industrials			x
Technology			x
Telecom	x		
<i>Defensive</i>			
Consumer Staples		x	
Healthcare			x
Biotech			x
Utilities	x		
FIXED INCOME			
Preferreds		x	
Government Bonds		x	
Corporates		x	
Munis		x	
Long Duration		x	
Intermediate Duration		x	
Short Duration	x		
High Yield	x		
TIPS			x
Emerging Credit		x	