MACRO INTELLIGENCE REPORT

March 3rd, 2017

Market Overview: The Capital Cycle

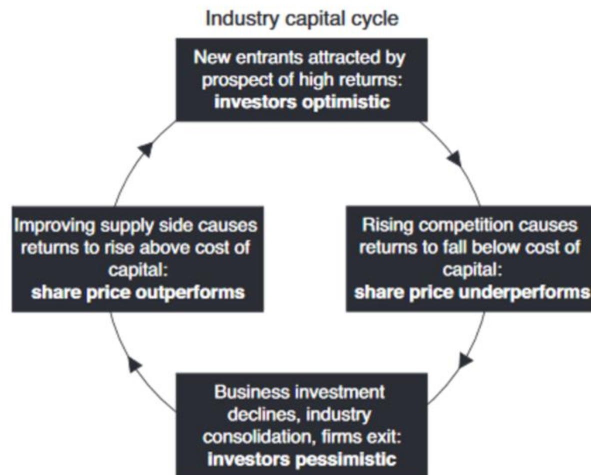

Chart I.1 The capital cycle

Source: Marathon.

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If you've been following Macro Ops for a while then you know the Bridgewater Debt Cycle model is the foundation for how we view larger market movements. The debt cycle drives the short-term business cycle (5-8 years) as well as the longer-term secular cycle (50-75 years).

Here's how it works:

1. The central bank lowers interest rates, bringing down the cost of money
2. This lower rate feeds into the rest of the economy, bringing down lending rates
3. Borrowing becomes cheaper and more attractive, driving consumers and businesses to borrow and spend more (boosting demand)
4. Existing debt becomes cheaper to service, leaving consumers and businesses with more income to spend (boosting demand)
5. The discount rate at which businesses and financial assets (risk-premia spread) are valued is lowered, increasing the present value of assets, which creates a flow into riskier assets (boosting demand)
6. Since one person's spending is another's income, a wealth effect is created and credit profiles improve, allowing consumers/businesses to borrow and spend more, creating a virtuous demand cycle

Eventually, central banks raise interest rates and the feedback loop shifts into reverse, until interest rates are lowered once again and the cycle starts anew. Short-term debt cycles compound into long-term debt cycles. This is how demand spawns and how bull and bear markets are born and die.

Again, if you've been following us for some time, then you know that we're in the tail end of the current short-term debt cycle. And this short-term debt cycle is on the backend of the long-term debt cycle. This means we're in the early stages of a secular deleveraging, which is why growth has been so elusive and also why Western politics have been so populous (a period not unlike the last secular deleveraging in the 1930's).

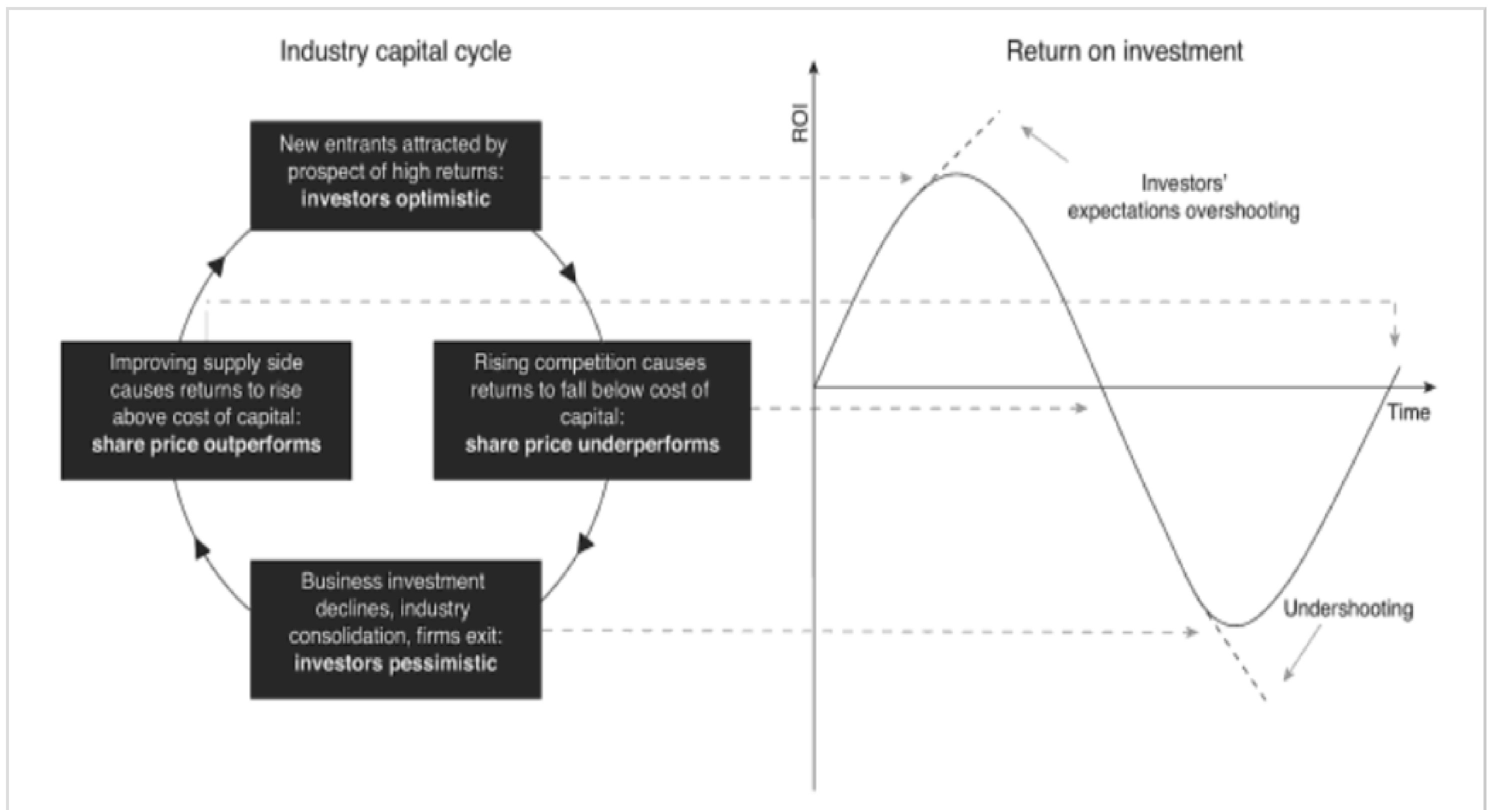
The Debt Cycle model looks at everything from a demand perspective. But we can also look at these cycles from the viewpoint of supply. Doing so gives us greater granularity of the forces at work.

The debt cycles' effects on the supply side are explained by Marathon Asset Management's "Capital Cycle" approach in their excellent investment book *Capital Returns* authored by Edward Chancellor. Here's a stylized example from the book of the Capital Cycle at work:

> *Here's how the capital cycle works. Imagine a widget manufacturer — let's call it Macro Industries. The firm is doing well; so well, that its returns exceed Macro's cost of capital. The firm's CEO, William Blewist-Hard, was recently featured on the front cover of Fortune magazine. His stock options are in the money, and his wife no longer complains about being married to a boring industrialist. Of the nine investment bank analysts who cover Macro's stock, seven have buy recommendations and two have holds. The shares are trading at a price-earnings multiple of 14, below the market average. Macro's stock is held by several well-known value investors.*
>
> *Macro's strategy department anticipates strong demand growth for its products, especially in emerging markets where widget consumption per capita is less than one-tenth the level found in the advanced economies. After discussions with the board, Macro's CEO announces his plans to increase manufacturing capacity by 50 percent over the next three years in order to meet growing demand. A leading investment bank, Greedspin, arranges the secondary share offering to fund the capital expenditure. Stanley Churn of Greedspin, a close friend of Macro's Blewist-Hard, is the lead banker on the deal. The expansion is warmly received in the FT's Lex column. Macro's shares rise on the announcement. Growth investors have lately been buying the stock, excited by the prospect of rising earnings.*

Five years later, Bloomberg reports that Macro Industries' chief executive has resigned after longstanding disagreements over corporate strategy with a group of activist shareholders. The activist, led by hedge fund Fantastic Investment, want Macro to shutter under-performing operations. Macro's profits have collapsed, and its share price is down 46 percent over the last twelve months. Analysts say that Macro's problems stem from over-expansion — in particular, its $2.5bn new plant in Durham, North Carolina, was delayed and over budget. The widget market is currently in the doldrums, suffering from excess supply. Macro's long-established competitors have also increased capacity in recent years, while a number of new low-cost producers have also entered the industry, including Dynamic Widget, whose own shares have disappointed since its IPO last year.

The market for widgets is suffering from the recent slowdown in emerging markets. China, the world's largest consumer of widgets, has vastly expanded domestic widget production over the last decade and has lately become a net exporter. Macro is reportedly considering a merger with its largest rival. Although its stock is trading below book, analysts say there's little near-term visibility. Of the remaining three brokerages that still cover Macro, two have sell recommendations with one hold.



The image above shows the capital cycle at work.

Capital is attracted to high-return businesses and flees when returns fall below the cost of capital.

When capital flows in, it leads to new investments, increased competition, and greater capacity. Over time the increase in capacity leads to lower returns on the invested capital. When those returns fall below the cost of capital, money exits and capacity is reduced, until eventually, profitability returns.

This process plays out in cycles and resembles Shumpeter's process of "creative destruction", where the boom leads to inevitable capital misallocation and the bust eventually clears it out.

This cycle plays out at both the macroeconomic and sector level.

An example of this is the telecommunications bubble that occurred during the tech bubble in the late 90's.

As blind capital gushed into the tech space, telecom companies started doubling fiber cable infrastructure every three months, which was double the rate at which traffic was actually growing. Investors who understand capital cycle theory would have recognized the supply glut and the inevitable poor future returns, allowing them to sidestep the bust.

The same was obvious in the housing bubble and subsequent crash. Your's truly was tracking the housing market in 06' and knew things were unsustainable. The situation was obvious. All you had to do was look at the ratio of home prices to income, which reached ridiculous levels at the height of the boom. Rising home prices drove overinvestment (capital misallocation) that led to excess supply… something we're still dealing with today.

E&P energy companies in 14' are a more recent example. The extraordinary rise in the industry's ratio of capital expenditures to depreciation revealed the unsustainable situation.

Again, high returns attract capital, leading to overinvestment and a supply glut with lower future returns… eventually sparking Schumpeter's creative forces of destruction.

This relationship between capital expenditures and future returns is shown in the chart below.

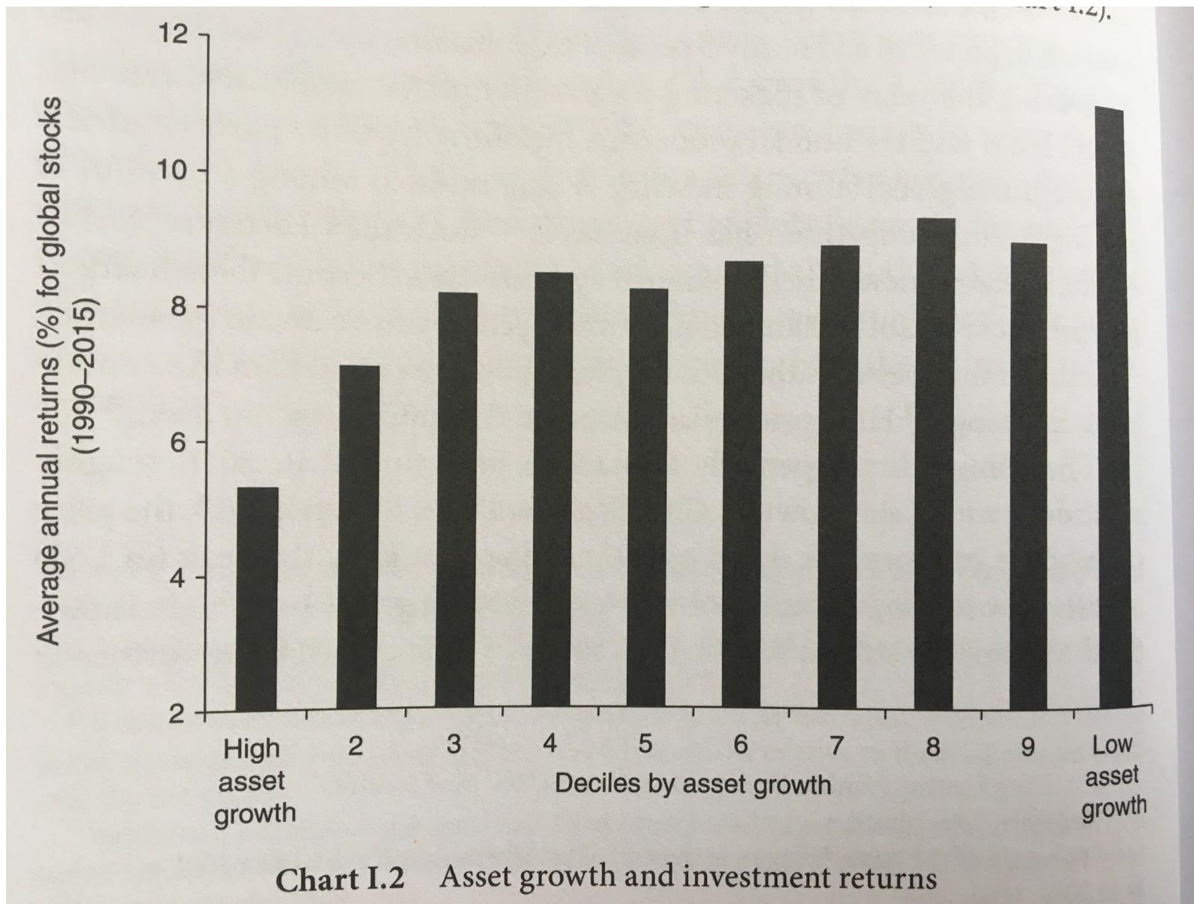


Chart I.2 Asset growth and investment returns

Higher returns follow sectors where there's been underinvestment.

Our debt cycle model and Marathon's capital cycle model are essentially two sides of the same coin. But debt cycles provide the advantage of seeing how the cycle starts. The lowering of interest rates are what unleash capital in search of investment. That investment leads to greater capacity. And that capacity leads to lower returns.

At the end of the business cycle there are three forces at work:

1. Rising interest rates sap demand and raise the cost of capital
2. At the same time, according to capital theory, future returns decline due to over capacity
3. While demand is decreasing and there's a glut of supply, the herding nature of market participants create euphoric sentiment that drives expectations (and market prices) well past likely outcomes.

This process is what forms a market top. And that is what we're seeing play out now.

A Process, Not An Event

In April of last year, we first wrote about how the Fed's refusal to follow through on its initial rate hiking path would create an extended bull run not unlike that of 98' and 99'. That's been our macro call for US markets ever since. And it's one we feel more and more vindicated in making.

We've recently been seeing the beginnings of investor euphoria that are typical of early stage market tops. For example:

- Snapchat (SNAP) closed 44% higher on its first day of trading, giving the cash burning company a market cap of roughly $33B. (Anecdotally, I received numerous phone calls and texts from friends and family asking if they should buy, with many claiming it's the next Facebook. Whether or not they'll be right, I don't know, but it's a small sign of retail interest returning to the market).
- The S&P 500 traded its narrowest intra-day range (sub 1%) for 50 straight days, making it one of the most "peaceful" markets on record.
- The Dow closed at new all-time highs for 12-days in a row — a streak of gains not seen since 1987.
- The percentage of bullish newsletter writers is now above record highs that were last seen in 1987.
- The market's Shiller P/E just crossed 30x for the third time in history. The first time was in 1929 and the time after that was late 1997.

The following quant study from Nautilus compares the current confluence of sentiment and price action to the few similar times it occurred in the past. Surprise, surprise… excessively optimistic sentiment and vertical price appreciation tends to precede large selloffs.

SPX forward returns after 7 events, 1967 - Present

Event Dates	1Mo	3Mo	6Mo	1Yr
08/31/1987	-2.42%	-30.17%	-18.79%	-20.70%
06/30/1997	7.81%	7.02%	9.64%	28.10%
02/27/1998	4.99%	3.95%	-8.77%	18.01%
06/30/1999	-3.20%	-6.56%	7.03%	5.97%
12/31/1999	-5.09%	2.00%	-1.00%	-10.14%
12/31/2010	2.26%	5.42%	5.01%	0.00%
02/28/2017				
Avg after Signals	0.73%	-3.06%	-1.15%	3.54%
Average All Periods	0.65%	1.93%	3.91%	7.96%
T-Statistic	0.04	-0.86	-1.13	-0.60
# Events Up/Down	3 / 3	4 / 2	3 / 3	3 / 3
Significance	51%	-79%	-85%	-72%

Monthly 2/28/1967 - 2/28/2017 Data Source: Bloomberg 3/2/2017 8:29

Market tops are processes, not events. They typically play out over 6-18 months. We're still at the beginning of this one. We expect the IPO market to begin heating up and retail investor participation to increase (the dumb money is always the last one to the party).

As we noted in last month's MIR, this bull market won't die until the ratio between the price-to-earnings of bonds and stocks is above 1 (ie, the cost of capital rises above expected returns). We're not there yet and probably won't be until at least the second half of this year.

Market tops are extremely difficult to trade.

This is due to a number of reasons:

1. The asymmetry is to the downside and the asymmetric risks increase the higher the market runs
2. Future returns are completely speculative. Overcapacity permeates the system at market tops and future market returns are for the most part short lived and based off speculative sentiment, not sound fundamentals
3. Volatility (both up and down swings) tends to increase at the same time the fear of missing out (FOMO) becomes strongest.

What then is a trader and investor to do?

Most importantly, your time frame for most of your trades and investments needs to be shortened. And your cash positioning needs to grow the longer the topping process plays out. Patience is paramount and an increase in trade/investment selectivity is key.

Now is not the time to start being greedy.

This is tough to do. There's no way to *know* beforehand whether we're in early 98' and have a long runway ahead of us, or if we're in the middle of 99' and the game is in its final innings. We can only be reactive and adjust fire as new information presents itself.

The tendency for vertical runs during tops makes it nearly impossible to outperform the market without assuming dangerous risks.

These periods of underperformance need to be accepted with the knowledge that vast outperformance will come when the pendulum swings and valuations revert to their mean.

During the final stages of a bull market I like to go back and reread a now famous newsletter written by Justin Mamis called the "Philosophy of Tops". It came out a few weeks before the devastating crash of 87'.

Mamis is now retired, but was one of the top ranked newsletter writers for decades, having started his career in the late 70's. Fund managers and high net worth individuals paid up to $20k a year to receive Mamis' market insights.

Here's a few relevant excerpts from his July 87' newsletter on the "Philosophy of Tops".

> *The Charts Themselves:* *Market tops, in chicken and the egg fashion, do not, can not, form without individual charts shaping up as sales, as shorts. Indeed, in the past, and despite tops made while the Dow actually goes on to a marginal new high (see April 81'), many stocks were no longer advancing but were, instead, already in downtrends. This is a truism that must follow from deteriorating breadth and lagging new highs: by the time the blue chip average makes its own peak probably a third to a half of all NYSE stocks have already long since seen their highs. Perhaps another third top out as the Dow does; and the rest cave in after the bear market takes hold.... Portfolio management requires anticipating: identifying which stocks have already had it. Since it has become virtually impossible to outperform the averages on the upside, it becomes all the more essential to try to do "less bad" during selloffs, by paying attention to not owning vulnerable stocks… rather than being lulled into believing that the ongoing bull market will bail everything out eventually.*
>
> *Long-term forecasts, which once were modest, suddenly become "the sky's the limit". Belief expands, while the place to put money narrows to "the stock market's the only game in town."*
>
> *If you look at every top we've lived through, they each have certain ingredients — internal market deterioration; rationalizations and lullings; using up buying power even though you used to know better; and waiting and waiting for the bell to go off, which proves in hindsight to be rather more of a little tinkle that you thought you heard but weren't sure enough of to act upon. The one eternal aspect of every market top is that it occurs before we're ready for it.*
>
> *Other "missing" ingredients:* *Past tops typically have also seen such factors as public speculation, insider selling, and the end of a new issues boom.*
>
> *Tops are not made in a day. Unlike bottoms, which often can abruptly materialize on a climatic panic, with many stocks making their lows at the same time (although still requiring ample subsequent base-building), tops form over a much longer period of time. Also unlike bottoms, which form in anticipation of discernable, albeit unbelieved, change, tops seem to come out of nowhere, indeed, out of a glowing good-news climate. Nevertheless, there are several repeatedly appearing essential ingredients to tops, the chief of which is, of course, how to fool the most number of people into confidently*

> *holding (and even buying) stocks as the bull market ends. The way this is done is often almost by magic. Tops don't look like tops.*
>
> *Everyone kept saying 'a top is not in place yet.' They persistently pointed to the 'normally reached' levels of this or that statistic that were not yet there to reinforce their desire to remain bullish. ... Apart from statistical measures of increasing blindness, this unwillingness to acknowledge what they themselves were already feeling revealed a comfortableness, a confidence, a conviction that whatever was happening – short-term survivable dips – would continue . . . until 'the top,' like a striptease artiste of our youth would, with decorum, appear on stage, bow, and then, accompanied by applause from all the bulls eager to cash in on their excitement, would begin to twirl its statistical tassels in front of everyone.*
>
> *I've gotten so old I can't remember the names of those ladies at the Old Howard, but I can remember that all you got was a flash of this or that, before they waltzed off. Stock market tops are like that. You know it's there somewhere if you squint hard enough, but you never quite see it, so you keep waiting for more. And then, in the end, as the curtain comes down on the bull market you realize that the one rule about tops is not that they provide this or that signal, but that they come before anyone is ready.*

Mamis' signs of a market top are still relevant today. Things like insider selling, market breadth, new issues boom etc… are all things we track closely. Some of these signs, like insider selling and market rationalizations are already ringing, but others are not.

An advantage we have over old Mamis is that he was purely a market technician, while we, of course, also closely track macro. In addition to those technical signs we watch a host of credit and liquidity indicators. These will always provide an early warning of coming large corrections and combined with Mamis' signals, will help ring the bell once the top is firmly in place.

Currently, these macro indicators are supportive of further upside. Liquidity is still strong, but a few indicators that tend to lead the way have begun to roll over. All of this supports our case that we're in the early stages of the topping process and likely have a good deal of upside still ahead.

Our plan is to stay bullish, but proceed with caution. Slowly start increasing your cash position and focus more on capital preservation versus market outperformance. Supply is overcapacity and the debt cycle is old… now is not the time to be greedy.

Deep Dive: GAIA

When the median market PE multiple is at its highest level in history and heading higher, it's nearly impossible to find investments that have long-term holding potential. Stock market tops are a trader's purgatory — it's far too early to start shorting, but going long is just as much of a crapshoot.

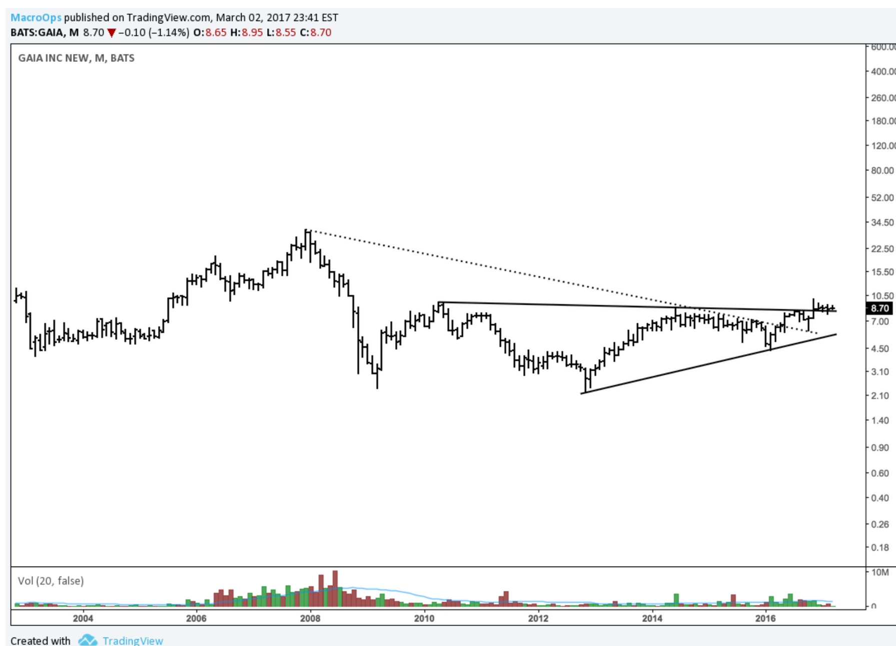
With that said, there are still some hidden value/growth opportunities that are improperly discounted by the market. To find them you just have to sift through the more overlooked areas of the market, which often means diving into the microcap space.

This involves digging through hundreds of junk stocks to only occasionally find a diamond in the rough, the one that has the real 10+ bagger potential.

This has been our equity strategy over the last six months. During this time, we sifted through hundreds of stocks and uncovered one high conviction trade in Goldfield Corporation (GV).

This was one of those stocks that made you do a triple take. It had all the boxes checked for an explosive growth stock, but was trading at left-for-dead multiples. GV is now up 150% since our initial purchase in November and still has plenty of runway.

After digging through hundreds of other similar micro-cap stocks over the last month, I've come across one other stock that has GV-like potential. The company is called Gaia and it's run by an unusual CEO.



I remember digging into this company a few years ago. At the time, I thought it was interesting but lacked direction, so I passed on it.

But over the years it's stuck with me and I've continued to check up on it from time to time. The reason I do so is because of the founder and now CEO (he's recently returned to lead the company after an 8 year hiatus).

That man is Jirka Rysavy, and he's unlike any other successful CEO you'll ever read about.

Rysavy originally hails from Czechoslovakia, where he was a national champion hurdler. He escaped Soviet rule during the 80's and fled to America where he spent a good deal of time walking across the country and sleeping on park benches.

In 1984, with hardly any money or formal business training, he started an office supplies distributor.

He took a page from Sam Walton's playbook and sought to revolutionize the highly fragmented office supplies space by selling cheaper and more efficiently than anyone else. In this vein, he was highly successful.

In under a decade his company "Corporate Express" became the largest office supplies distributor in the world, as well as a Fortune 500 company. In 98' Rysavy sold Corporate Express to a Dutch firm for $2.3B.

During this time Rysavy also started a number of other companies that ranged from an organic market (which later became Wild Oats and was bought by Whole Foods) to a solar power company and nutritional supplements maker, all while still finding time to train for the Olympics with his native track team. Simply put, the man is a serial entrepreneur and an unusual one at that.

Even after accumulating a net worth that's in the hundreds of millions, Rysavy chooses to live on a small secluded plot of land in the mountains of Colorado. It's a tiny log cabin with no running water and little in the way of amenities — he sleeps on the ground in a sleeping bag. Once, when asked in one of his very few interviews, why he chooses to live so frugally, he responded "I have everything I always wanted. Just because I have money, why should I buy extra stuff?"

You can read up some more on one of America's most interesting CEOs here.

I'm putting emphasis on Rysavy because the trade thesis behind Gaia is largely a case of betting on the jockey.

An exceptional jockey (management, leader) can make up for a lot of the present day shortcomings of a company. Just like great stocks, exceptional management is tough to come by. There's only so many Steve Jobs, Mark Zuckerbergs, and Jirka Rysavys in the world.

When the opportunity arises where you have a rock star leader and a company with a long runway and low stock price… you get an amazing investment opportunity.

That's what we have here with Gaia.

Gaia was started by Rysavy in 1998 immediately after he sold his office supplies company. It started off as a lifestyle brand that produced yoga clothing and nutritional supplements. At its peak 10 years ago it was doing roughly $300 million in revenue a year. But in 2008 Rysavy stepped down as CEO and the company lost direction. As a result, it saw sales and earnings decline.

This past year, Rysavy, apparently tired of meditating in the mountains and practicing his sun salutations, returned as CEO and has completely pivoted and refocused the company.

He's sold off its large branded yoga apparel business for $167M and its travel business for $12M, leaving just a video streaming business and a large pile of cash. Gaia used some of that cash to buy back 40% of the company last July. Rysavy now owns 38% of the company.

The new Gaia is gunning to become the Netflix for the "New Age", making it a play on the trend towards distributed and specialty programming in television. It's creating a platform subscription business. I *love* these types of businesses.

Gaia's content ranges from guided meditations and yoga, to holistic nutrition, parenting, spirituality, and some paranormal shows that are really out there (they make the History channel's Ancient Aliens look like sober academia).

It's safe to say that Gaia is going after a niche market. But because of its online streaming platform and global reach, this niche is potentially very large.

Gaia produces the vast majority of its content in-house. It has a number of Gaia stars or "gurus" that are paid on the number of subscribers they attract to the platform. This makes for low-cost customer acquisition and aligns incentives between the platform and its content creators.

Subscribers can watch Gaia's content through its newly optimized VSOD site or through one of its many partners like: Apple TV, Roku, Amazon, Hulu, Comcast and Verizon. On average, users pay $10 a month for a subscription.

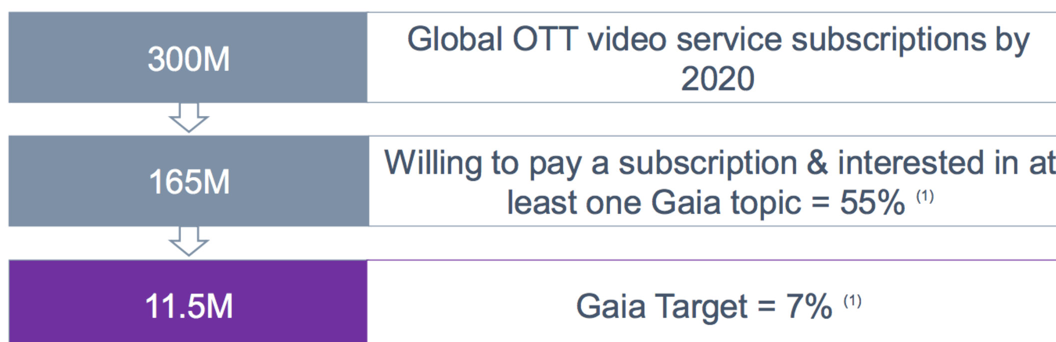
Like Netflix, the investment thesis is all about growth potential. So what does that look like so far?

As of last quarter, Gaia saw subscription growth of 52% over the year prior, bringing the total subscribers to 202,000 with members in 140 countries.

Given that Gaia started from scratch just three years ago and streaming video was just an afterthought of the business until last year, that's impressive growth.

One of the many great things about the online platform business model is that the trend growth is not linear, it's exponential. That's how Netflix was able to more than 3x its subscriber base in under four years. Gaia can do the same.

According to Bespoke Research Group, there'll be an estimated 300 million video streaming customers around the globe by 2020. Out of those 300 million, 55% are interested and willing to pay for at least one Gaia topic.



Gaia will only get to a fraction of the total addressable market, but that's all they need for the stock to rise by a few multiples.

Right now, the company is projecting 80% subscriber growth for this year and the next. They expect to hit 1 million paying subscribers in 3 years time. With their expected margins, they should reach $60 million in pretax earnings within 5 years. With only 15.1 million shares outstanding, that would give the company an earnings per share of $2.50.

And here's the thing, we think these growth projections are on the conservative side. Rysavy has a long history of under promising and over delivering.

The company is currently losing money, but this is by design. Gaia has to expense all the costs of acquiring new customers as they're incurred, but revenues from new customers are realized over their lifetimes, creating a mismatch between expenses and revenues. They *could* be profitable at current subscriber levels, but are foregoing current profitability to focus on growth, which is the right strategy.

Even though Gaia is unprofitable at the moment, they're fully funded and shouldn't have to access any additional financing as they grow. In fact, there's a lot of safety in buying the stock at current levels.

Currently the company has $50M+ in cash that covers nearly 40% of its market cap. Gaia also owns a large campus that is less than 20% occupied by the company. The property and land values are estimated to be worth at least $20M. They also have 77,000 titles in their video library equating to around 7,400 hours of content, which is worth approximately $20M.

This means that at the current market cap of $132M, roughly 60% of the market cap is covered by cash and property alone. With no debt, our downside is protected.

Assuming Gaia is able to hit its conservative growth targets over the next four years, and given a very modest 10x multiple on those assumed earnings, we arrive at a market cap of approximately $350M… roughly 3 times what it is today — and that's our conservative case.

Simply put, with Gaia you get a niche company with little to no current competition, that's run by a serial entrepreneur who owns nearly 40% of the business (major skin in the game) and who has a long track record of being able to rapidly grow businesses. This trade is undiscovered for the time being, but once other investors see the potential here, the stock should take off. A three bagger is our base case.

Around The World

France: Third Time's The Charm

Everyone's attention is now turning to France where the populist wave is set to touchdown next.

As Operator Junaid explained in the Comm Center, the French are pissed for the same reasons as the rest of Europe. Immigration is out of control. And with it comes terror attacks (Charlie Hebdo, Paris, Nice). In the eyes of the French, there's one group to blame for all this — the EU "elites". Brussel's open border policies have effectively ignited a war against French culture and tradition. Even though immigration *sounds* nice and *seems* like the right thing to do, the actual mechanics of it get messy. In this case, you have two completely opposite cultures trying to mesh together. The result is chaos. Just check out the riots and unrest France has been dealing with in this video.

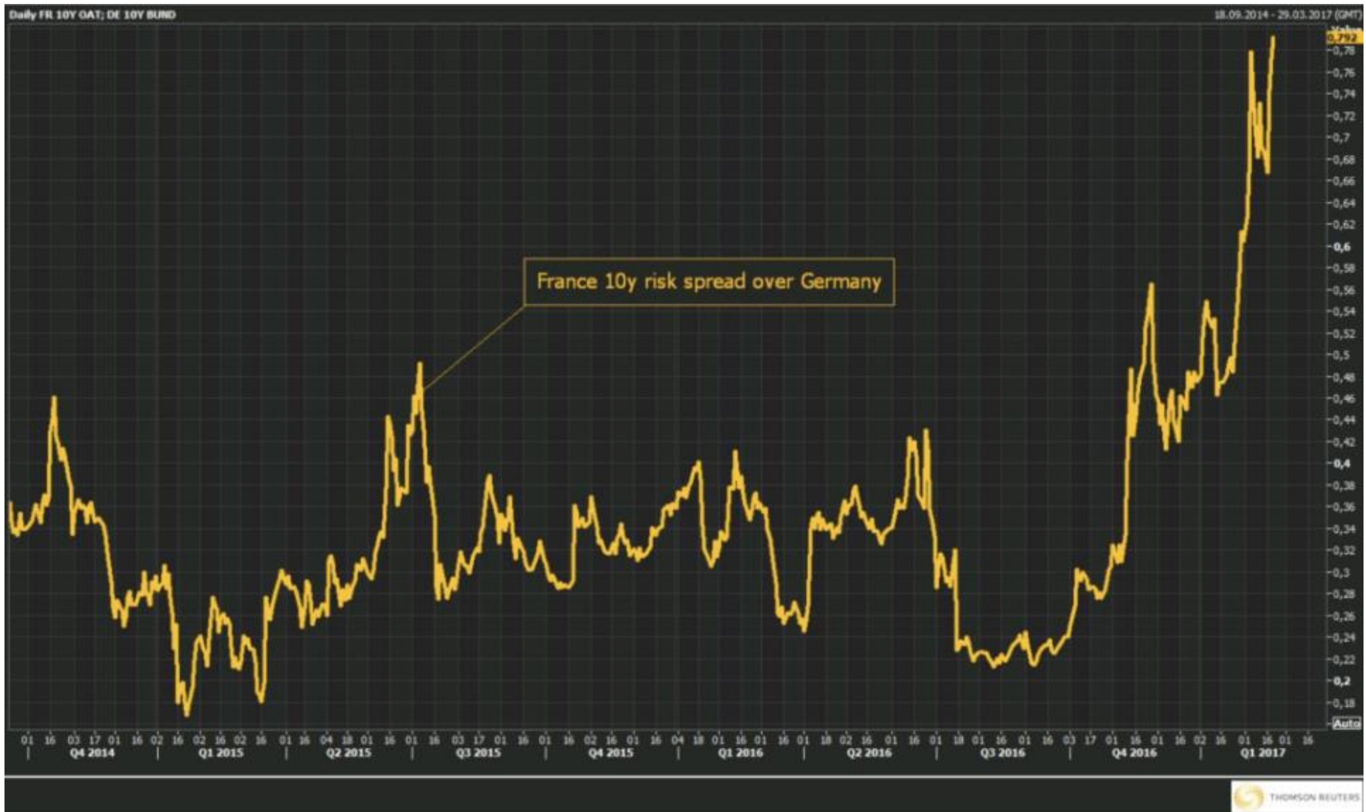
Surprised? I don't blame you. The media doesn't report on it much.

Enter Marine Le Pen. She's set to run in France's presidential election this year. Here's a quick summary of her plans if elected (head to Bloomberg for the full list):

- Break away from the EU and exit the euro
- Eliminate the French central bank's independence
- Tighten borders to prevent immigration (including from other EU countries)
- Abolish the freedom of movement guaranteed to EU workers
- Promote "smart protectionism" which includes eliminating trade deals and enacting capital controls and tariffs/taxes
- Nationalize various "strategic sectors"

Sound crazy? The media thinks so. That's why they continue to claim that Le Pen has no chance of winning the election. But we've seen this episode play out before with Brexit and Trump. The media thinks it can't happen, and then it *does*.

But this time around investors are ready. They've already been caught off-guard twice before. They're not about to let it happen again. You can already see money flowing out of France and into the "safe" arms of Germany, all in anticipation of a Le Pen win. The graph below shows the spread between the French and German 10 year bonds. French yields are rising quickly as investors sell OATS and buy up German BUNDS.



The first round of French elections are set to take place on April 23rd and includes all 5 candidates. Now if one candidate wins over 50% of votes in the first round itself, he or she will secure the office immediately. But this is rare. A second round is usually held where the top two candidates with the most votes in the first round face off. This will occur on May 7th. The question now is how we play this, both pre- and post-election.

The most obvious option is to short the Euro.

But is there any edge left here? Most investors are expecting the "unexpected" this time. They're looking to short the euro with the idea that France leaving the EU will be the final nail in the coffin for the currency. This makes sense long-term. We're bearish on that timeframe as well. But in the short-term we may not get much of a move if this scenario is already priced in. Le Pen *not* winning may be the real surprise and could send the Euro higher. We rather not make a play just yet. We want to see a trend establish itself after the volatility from the election calms down.

The next possible play is to short French equities.

You saw Le Pen's plans for office. She wants to take an already super socialist country and throw even more government intervention into it. She's completely anti-business. And the French people fully support it. They're extremely distrustful of big business and industry and love socialism. This being the case, French companies should look out below…

But again the question here is when. Long-term, yes we're bearish French equities. But in the short-term volatility of the election anything could happen. If the Euro *does* weaken, French equities could actually rise. We'll want to wait for a solid trend to form before trying to short anything.

The one area capital is definitely flowing to is Germany. Investors consider it the safest place in the EU. But what's really going on over there?

Germany: Not As Safe As Everyone Thinks

Germany has the strongest economy in the EU. There's no doubt about that. And it somewhat makes sense that investors are parking their money there for safety. But they're missing one obvious fact. Germany's economy is intimately tied to the rest of the Eurozone.

We've discussed this problem in past MIR's. Germany derives about 47% of its GDP from exports, making it more dependent on exports than any other large exporting country. Germany is the 3rd largest exporter in the world after China and the US, but China's exports only account for 22.6% of GDP and exports in the US only make up 12.6% of GDP. And while both China and the US have reduced their reliance on exports over the last decade, Germany has increased theirs. It has now reached a point where every 10% drop in exports is equivalent to a **5% reduction** in GDP for the country. 25% of Germany's GDP is made up of exports directly from Europe. And guess who's the number one importer of German goods in Europe — France.

Le Pen's plans are very clear when it comes to trade deals and open borders (for goods and people). What are the chances a renegotiation will benefit Germany? Le Pen is going 100% nationalistic under the guise of "smart protectionism". She could care less about Germany and its "elites".

These screwed up trade relationships won't be constrained to France either. If France leaves the EU, the entire union will fall apart. That means new trade deals need to be negotiated with all the former member countries. There's no way this doesn't become a huge cluster that has a significant impact on German exports.

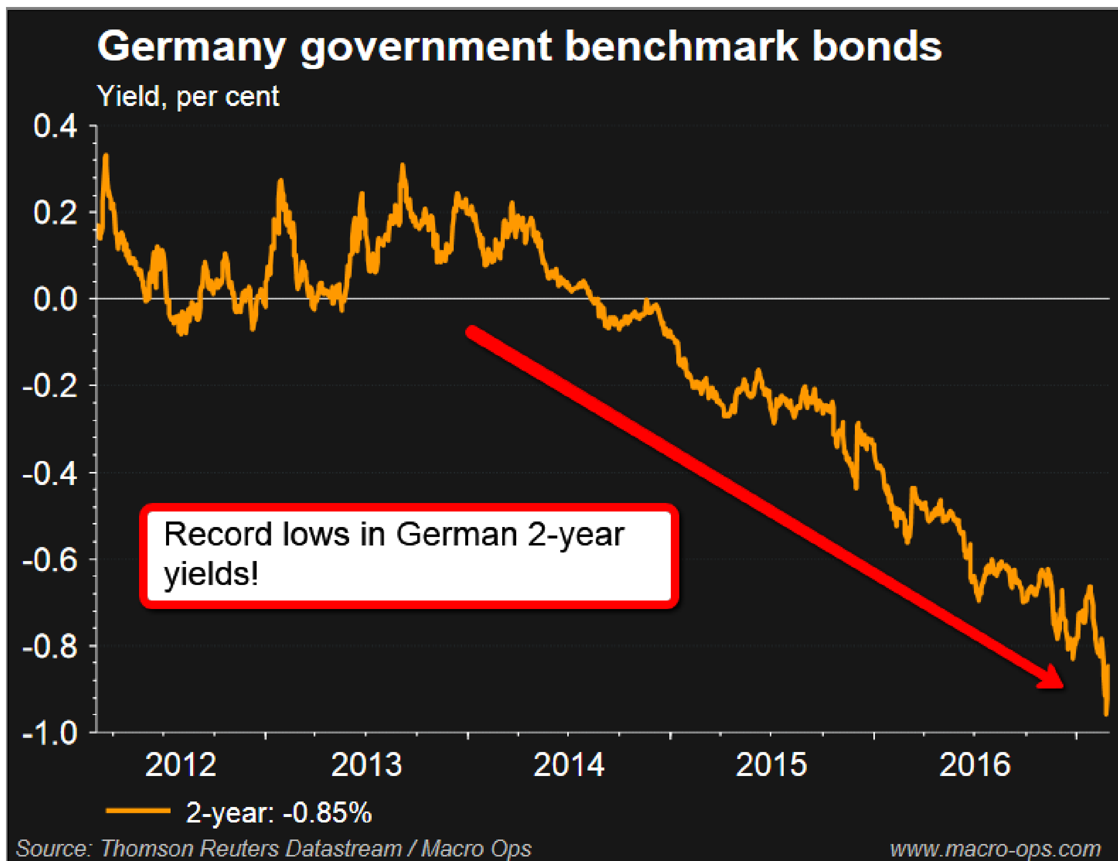
Just this month, various German banks reported losses due to the struggling shipping sector. Commerzbank, Germany's second largest bank, reported that earnings fell 5% in Q4 2016 because of increase provisions against bad shipping loans. It expects losses on shipping loans to be as high as 600 million euros this year, after already doubling to 559 million euros last year. Deutsche Bank also reported that losses on shipping loans tripled from a year earlier to 346 million euros.

The problems in the shipping industry and with exporters in general stem back to the 2008 crisis. Demand never fully recovered and over the last two years, fleet capacity continued to outpace it (capital cycle at work!). Freight rates plummeted to record lows and many shipping companies reported huge losses in 2016. Maersk, for example, recently reported an annual loss for only the second time in its entire history.

There isn't expected to be a recovery anytime soon. These shipping companies will continue to struggle to pay off their debt which in turn spells more trouble for German banks. According to the German Shipowners' Association, German banks and investors own about 29% of world container-ship capacity. And statistics from Petrofin Global Bank Research show that German banks own 25% of all outstanding shipping loans (nearly $90 billion). Germany is all-in when it comes to exports, not only through their own German businesses, but also through their banks which are exposed to international exports. And let's not forget the powder keg brewing for German banks in the Italian banking crisis…

So no, Germany is not a safe place for investors' money. But in the spirit of playing the player Keynes's beauty contest style, we need to figure out where the crowds are most likely to move their capital and how we can profit from it.

And it looks like the masses believe in Germany regardless of their current and future export problems. 2 year bunds are hitting record lows yields.



The DAX looks strong as well.

Recent data out of Germany has been positive. German manufacturing grew at its strongest rate in 6 years in February. PMI rose from 56.4 in January to 56.8 in February, the highest level since May 2011. Growth rates for output, new orders, exports, and purchasing all improved. Manufacturing new orders also rose at their strongest rate in over three years. And German GDP grew .4% in the 4th quarter, meeting estimates. Market participants see numbers like this and think the coast is clear.

In reality though, this is a short-term bounce, a reversion to the mean. With all the problems we've discussed, we can expect to see the data deteriorate later this year.

Once market participants finally realize Germany isn't as safe as they think, capital will stampede out of the country. We'll be watching USD and gold as potential new homes for their cash. If you're interested in seeing how we play these moves in real time, check out the Macro Ops Hub.

Quant Overview

> *I do not recall a time in recent years when I have been so unimpressed with the speculative trading environment. Markets in 2017 have been fraught will false breakouts, erratic trends and a near-complete lack of developing chart patterns supportive of risk positions. These markets have been custom made for range traders willing to sell into bursts and sell into strong breaks (and then be wrong for a period until the trade works) – but this is not my style.*

The quote above is from 40-year market veteran Peter Brandt. He's seen it all. When he says markets are especially noisy and choppy, you can bet it's a killing field for trend traders.

Realized vol has collapsed across the board causing every move to reverse back into its congestion. This makes it impossible to establish low-risk, high-reward positions in outright underlyings. Tight stops continually get taken out while both bulls and bears are faked out.

If you're a trend trader, you have three ways to combat these hostile price action conditions:

1. Lower size and wider stops
2. Sit out completely
3. Purchase options

So far our strategy has been lowering our size and reducing our activity in the macro portfolio. But we still want to play the '99 analog we think we're in. So that leaves us with options. They're the best way to gain asymmetric exposure during choppy conditions.

Typically we avoid buying options because the negative carry eats away at returns. You find yourself fighting an uphill battle against time decay. To win, you need to be correct on two things instead of one — the direction of the move AND the timing of the move. If the move doesn't trend as fast and hard as you expect, you can still lose all your premium. (We explain this concept in detail in our Options Report.)

Long options aren't all bad though. They *do* have beneficial components. You get defined risk, as well as a position that adds exposure if the move goes your way (due to positive gamma), creating an asymmetric payoff.

With a long option you don't have to worry about the market consolidating and whipsawing you out. This not only preserves your account capital, but your mental capital as well. Too many stop outs in a row is taxing.

UUP Calls

The first trade we're looking to play the '99 analog with is USD.

We're eying the 30 delta calls on UUP (dollar ETF) that expire in January of 2018. The implied vol is neither rich nor cheap, but our directional bias is strong enough to still warrant a purchase. The details of the trade are below :

Symbol: UUP
Strike: 28 Call (30 Delta)
Date: Jan 2018
IV: 9.55%
Cost: $.39

Payouts:
UUP 28.39 (up 8.20%): Breakeven
UUP 29.00 (up 10.57%): 1.6 R
UUP 30.00 (up 14.33%): 4.1 R
UUP 31.00 (up 18.16%): 6.7 R

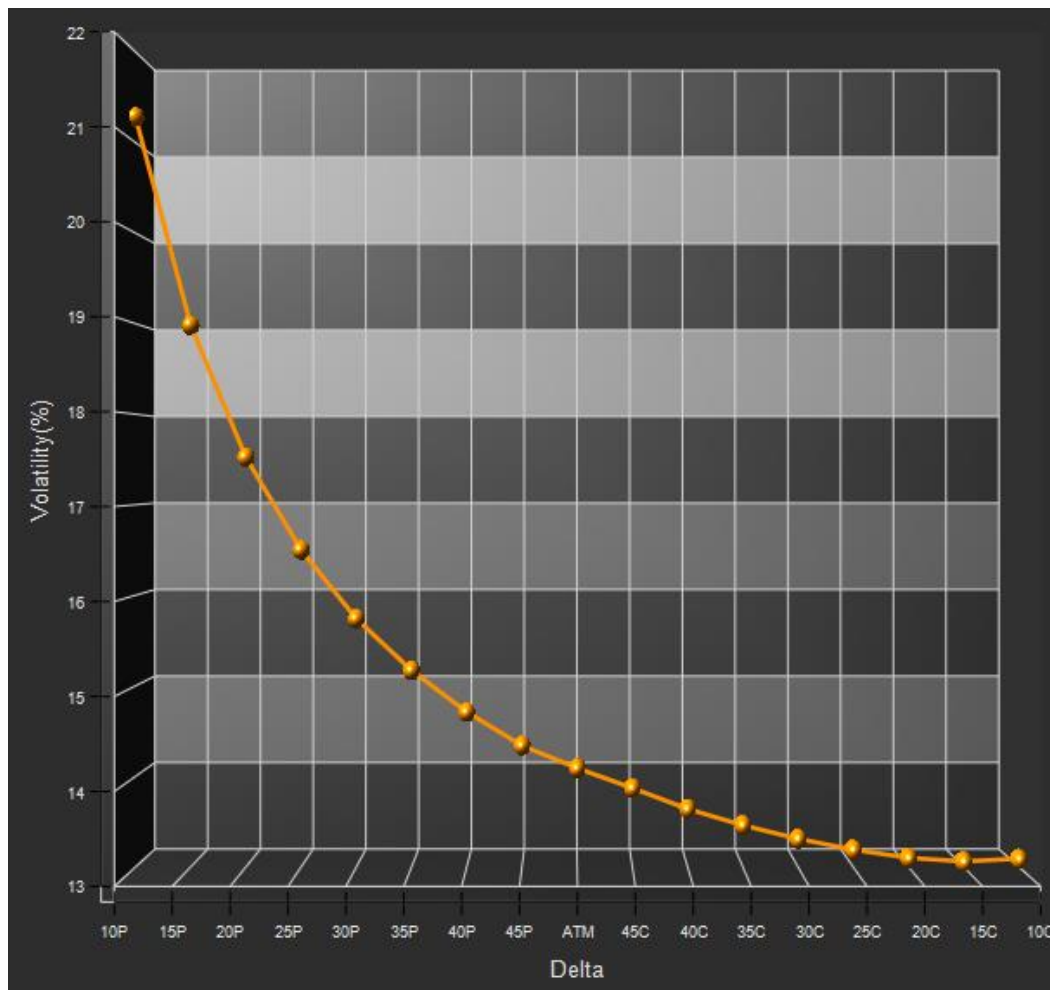
A full payout on this option will occur if the dollar rallies to '99 highs.

BTFD

We also plan to purchase some calls in SPX to capture a blow-off top.

It's best to buy SPX calls when the market dips. The "crash-up" characteristics of the modern day S&P have still not been factored into option SKEW. This gives the trade an incredible edge. SPX calls have been cheap this entire bull market run.

Take a look at the SKEW on 1-year SPX options below:



SKEW graphs implied volatility for ATM options and for all OTM put and call options. You can see on the put side (the left side) the farther out-of-the-money you go, the more expensive IV becomes. It's a consistent relationship. The smaller the delta, the higher the IV. Under the original Black-Scholes pricing model this shouldn't occur. But the crash of October 1987 woke people up to the fact that the risk of outlier returns is significantly greater than what the original model would predict. The higher IV pumped into the puts is how the market "makes-up" for the limitations of Black-Scholes.

But notice the right side of the graph, the call side. The curve actually slopes *down*. IV gets cheaper the farther out-of-the-money you go.

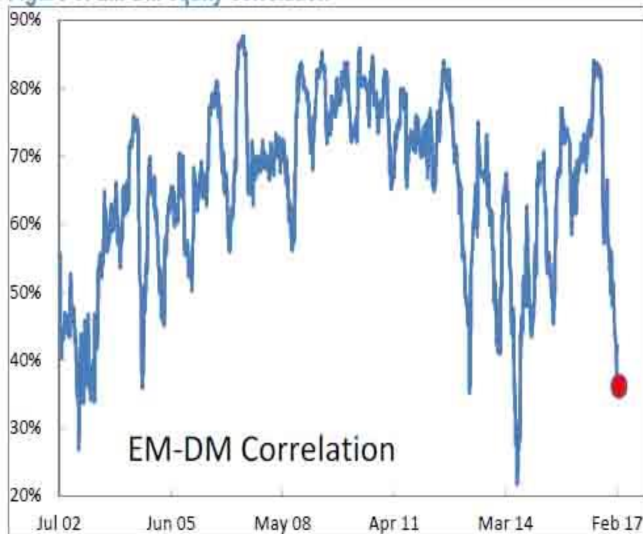
This is the market's way of saying that outlier returns only occur to the downside in stocks, not to the upside. But the market has continued to misprice just how vicious rallies can be. Traders have heavily underestimated how popular strategies like risk parity and vol targeting have changed the way the market reacts during dips.

These strategies need to de-lever (sell e-minis) when the SPX falls and then lever back up again (buy e-minis) when volatility subsides and the SPX starts to rally. This type of short-term risk control algo has a powerful momentum effect that oversells the market on corrections and then rips it back up again near highs as systematic strategies add back leverage.

Beyond that, we all know the passive investing chorus continues to grow louder and louder as each year passes. More and more investors are ditching active strategies and blindly throwing money into index funds. The most popular way to index is through the S&P 500. This creates a "wall of demand" that can't wait to allocate new capital when an index trades a few percent cheaper than a month ago.

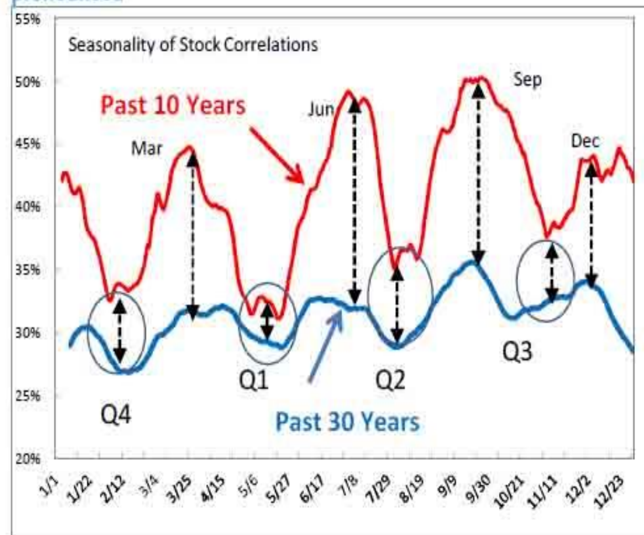
SPX as the "only game in town" also distorts dispersion, which is a measure of how correlated index components are to each other. The J.P. Morgan chart below shows how this effect has increased because of the move to passive indexing.

Figure 3: EM-DM equity correlation



Source: J.P. Morgan QDS.

Figure 4: Seasonality of stock correlation is becoming increasingly pronounced



Source: J.P. Morgan QDS.

Stocks are typically the least correlated during earnings season, which makes sense. That's when the most single stock news is released.

But when earnings end, passive index traders start to take over again and correlations turn up. Higher correlations between components means sharper moves in the SPX because there's less "push-pull" to cancel out net index movement.

You can see correlation has increased at a much higher rate over the last 10 years than it used to. More correlation equals quicker moves — a good thing for buyers of cheap optionality.

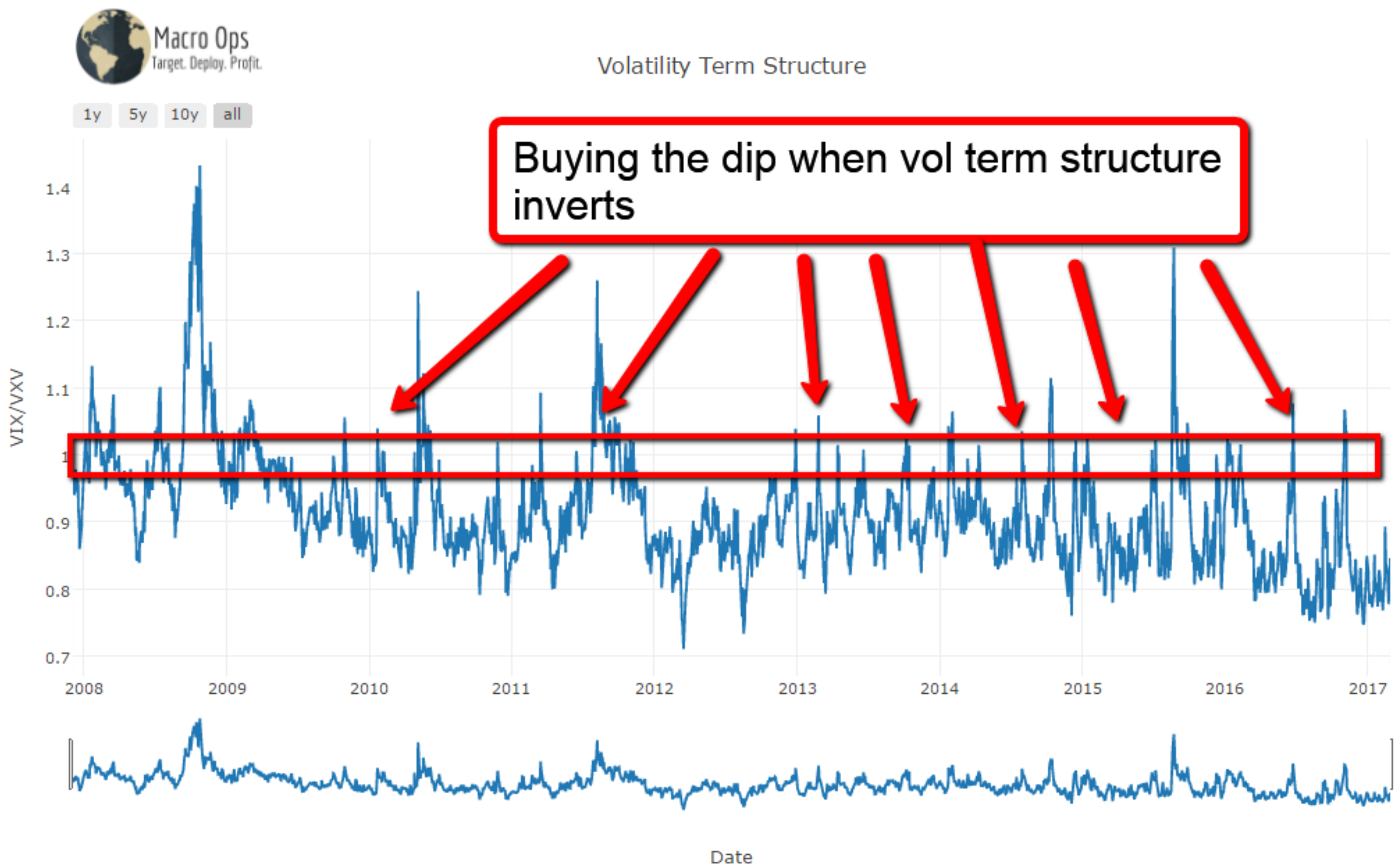
And finally, there's the yield hogs who've had a hard time realizing their targeted returns in the post-2008 low rate environment. These investors have turned to out-of-the-money covered call selling to create a "yield" on their passive holdings. The mass call selling cheapens the IV and distorts the upside SKEW in SPX.

All these factors combine to produce a market that can "crash up", even though the option market still doesn't think it's possible.

A quick look at the data since 2008 proves this point.

We ran a study on SPX calling dating back to 2008. The results may blow your mind.

- Period studied was from 6/30/2008 to 11/2/2016
- We used the volatility term structure (ratio of VIX:VXV) as an indicator for when to buy the dip
- When the blue line in the graph below spiked above 1 we went out and bought calls around 30 delta with 20-40 days to expiry.



Here were the results:

Macro Ops
Target. Deploy. Profit.

Start	$100,000				
Bet Size	5%				
Trigger Date	**Call Price**	**Call At Expiration**	**R**	**Cum R**	**Account**
6/30/2008	$21.80	$0.00	-1.00	-1.00	$95,000
9/9/2008	$20.80	$0.00	-1.00	-2.00	$90,250
10/28/2009	$18.00	$40.80	1.27	-0.73	$95,966
1/22/2010	$17.75	$0.00	-1.00	-1.73	$91,168
4/27/2010	$16.45	$0.00	-1.00	-2.73	$86,609
11/26/2010	$13.95	$44.00	2.15	-0.58	$95,937
3/15/2011	$17.45	$11.00	-0.37	-0.95	$94,164
6/16/2011	$18.25	$26.40	0.45	-0.50	$96,267
7/27/2011	$17.05	$0.00	-1.00	-1.50	$91,454
12/28/2012	$10.85	$56.45	4.20	2.70	$110,672
2/25/2013	$12.45	$48.55	2.90	5.60	$126,717
4/15/2013	$11.80	$70.75	5.00	10.60	$158,369
6/20/2013	$13.15	$55.50	3.22	13.82	$183,871
10/7/2013	$14.70	$75.40	4.13	17.95	$221,833
1/24/2014	$11.50	$18.80	0.63	18.58	$228,874
4/11/2014	$13.60	$16.00	0.18	18.76	$230,893
7/31/2014	$14.25	$41.50	1.91	20.67	$252,970
10/9/2014	$17.00	$79.20	3.66	24.33	$299,249
12/12/2014	$17.20	$0.00	-1.00	23.33	$284,286
6/29/2015	$14.85	$0.00	-1.00	22.33	$270,072
8/20/2015	$16.95	$0.00	-1.00	21.33	$256,568
12/11/2015	$20.60	$0.00	-1.00	20.33	$243,740
2/11/2016	$24.65	$145.10	4.89	25.21	$303,291
6/22/2016	$15.75	$43.50	1.76	26.98	$330,009
11/2/2016	$18.70	$113.60	5.07	32.05	$413,747

The trade had a 60% win rate with an average win of 2.8R and average loss of 0.9R! You almost *never* find trades with a high win rate and asymmetric risk/reward profile.

If you took every setup since 2008, risking just 5% of your portfolio each time, you would have 4x'd your capital with minimal drawdown.

Our plan going forward is to establish a small position in some out-of-the-money SPX calls. We then want to add more to the position on the next dip when the vol term structure inverts.

Here are the specifics of the calls we want to purchase:

Symbol: SPX
Strike: 2550 Call (30 Delta)
IV: 11.22%
Cost: $47.80

Payouts:

SPX 2600 (up 8.87%): Breakeven
SPX 2700 (up 13.21%) 2.16R
SPX 2800 (up 17.27%) 4.25R

If any of you have additional questions on the mechanics of options or vol, feel free to email me at tyler@macro-ops.com. Some of these concepts can get a little mathy and hard to understand.

Systemic Risks

Yuan Devaluation

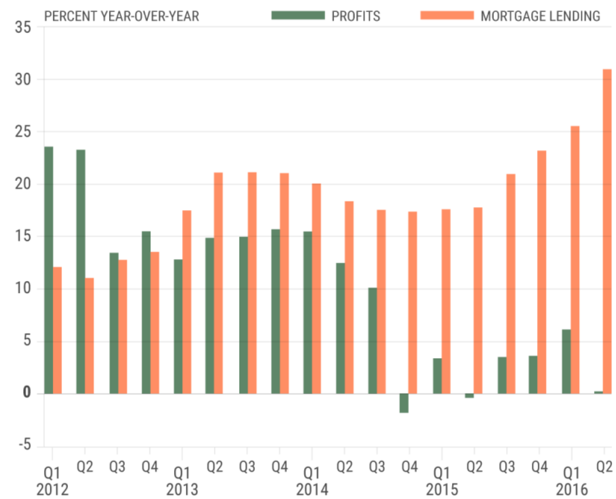
There's a good reason the Chinese have a strong gymnastics team every Olympics. It's because the whole country is constantly on a financial balance beam…

On the one hand the Chinese government needs to cool the country's excessive credit growth. But on the other hand, credit growth directly supports the real estate market, which is the foundation of the economy. The trick is to stifle the credit binge without causing a financial crisis. Easier said than done…

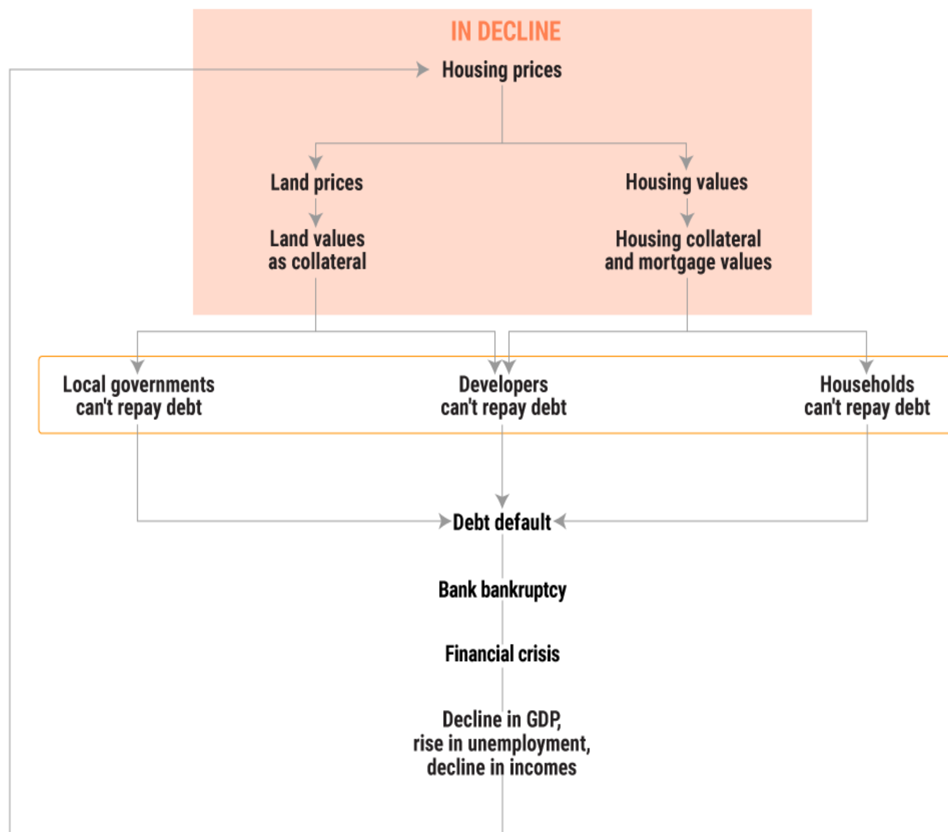
This year the PBoC has been slowly raising rates on reverse repos and medium-term lending facilities. The goal is to cool the credit expansion, but not too rapidly. Their markets have only gotten a 10 bps raise so far. They've learned in the past what slight changes in rates can do to the real estate market. Hikes in 2011 and 2013 led to huge drops in property price growth which shocked the economy.

Any drop in housing growth is dangerous. About 15-20% of the economy is dependent on real estate, which includes the construction, sale, and outfitting of homes. In last month's MIR we discussed the problems Chinese banks are having with unprofitable state-owned enterprises (SOEs) and their non-performing loans (NPLs). A majority of these problem SOEs are directly connected to real estate. The struggling companies we mentioned like BBMG and Taiyuan Iron & Steel are material providers for construction services used by real estate developers. And even companies outside the real estate sector, with entirely separate businesses, are still invested in the space too. Data from the St. Louis Federal Reserve estimates that 45% of all non-real estate firms in China invest in properties for capital appreciation.

All of China's eggs are effectively in one basket. This poses enormous credit risk to banks, who have continued to make mortgage loans even as net profits have fallen. A recent IMF report estimated that "total debt at risk could rise to about a quarter of total debt of listed firms in the event of a 20% decline in real estate or construction profit." A reflexive financial crisis is likely. The following diagram sketches out what the feedback mechanism looks like.



HOW A CHINESE REAL ESTATE BUBBLE COULD LEAD TO A FINANCIAL CRISIS



Source: © Lincoln Institute of Land Policy

Graphic redesign by Geopolitical Futures

Do we think China will be able to continue balancing this mess indefinitely? Of course not.

As we explained before, Xi Jinping will do everything in his power to prevent social unrest before the 19th Party Congress this year. So if the choice is between taking pain now or later, the choice will always be later. That means the government will likely lean on more credit and debt to keep the party going. Inflating the real estate market further is bad, but not as bad as a financial crisis. And the easiest choice to finally manage the excessive debt in the future will be to devalue the yuan, thereby reducing the total burden.

Portfolio Snapshot

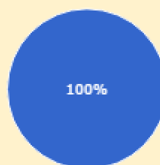
Strategic Ops

NAV $1,126,588

Asset Class	Position	Size	Cost Basis	Risk Point	Open Risk	Target	Notional
Equity	Goldfield GV	1,000	$3.89	$2.52	$1,370.00	$4.50	$7,000
Equity	Whiting Petroleum WLL	1,000	$10.41	$8.10	$2,310.00	$16.42	$11,390
Equity	Century Aluminum CENX	400	$11.11	$7.55	$1,424.00	$16.55	$26,860
Equity	Uranium Res URRE	3,000	$2.56	$1.58	$2,940.00	$9.00	$6,300

Metrics

Exposure Breakdown	
Equity	$8,044.00
Commodity	$0.00
Fixed Income	$0.00
Forex	$0.00



Total Open Risk

$8,044.00

0.71%

**Updated 3/3

Volatility Ops

NAV $1,172,261

Asset Class	Position	Size	Cost Basis	Notional
Volatility	April VIX Future	-17	15.697	-$259,248

Scenario Analysis/Stress Tests

1-Day VAR -$34,531

**Updated on 3/3

Asset Allocation Weightings

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		
Cyclical			
Materials		x	
Gold		x	
Commodities		x	
Consumer Discretionary			x
Financial Services			x
Real Estate, Domestic	x		
Real Estate, Global	x		
Sensitive			
Energy	x		
Industrials			x
Technology		x	
Telecom		x	
Defensive			
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		

For more information about real time portfolio updates please email alex@macro-ops.com