Inflation Growth

The Damped Spring Report

A synthesis of market drivers

Flow Risk Premium

Global market volatility continues to be under severe pressure. Damped Spring Advisors believes that this will continue throughout the 2nd quarter and possibly through the summer months. Today we will more formally introduce our framework for the way markets work by discussing the Damped Spring Model of Forward volatility. Currently, despite the extremely rare condition that global central banks are unwilling and/or unable to act as the traditional damper to uncontrolled volatility, the other key fundamentals which impact shifts to new equilibrium prices and the path markets follow to these prices is extremely benign and not likely to change. One day in the future the Global central banks will be tested and likely because of inability to fight economic weakness, (BOJ, ECB and even Fed) or unwillingness (the Fed) to fight overheating the markets will reprice meaningfully but #NotToday.

Synthesis

It is an interesting time. The global central bankers have essentially exited the playing field to watch developments unfold. Only a significant shift in the global economic outlook or more so than ever before a US stock market drop resulting in significant pressure on Powell from President Trump will bring the central bankers back to the field. China is the one exception delivering large monetary and fiscal stimulus measures which seem to have run their course.

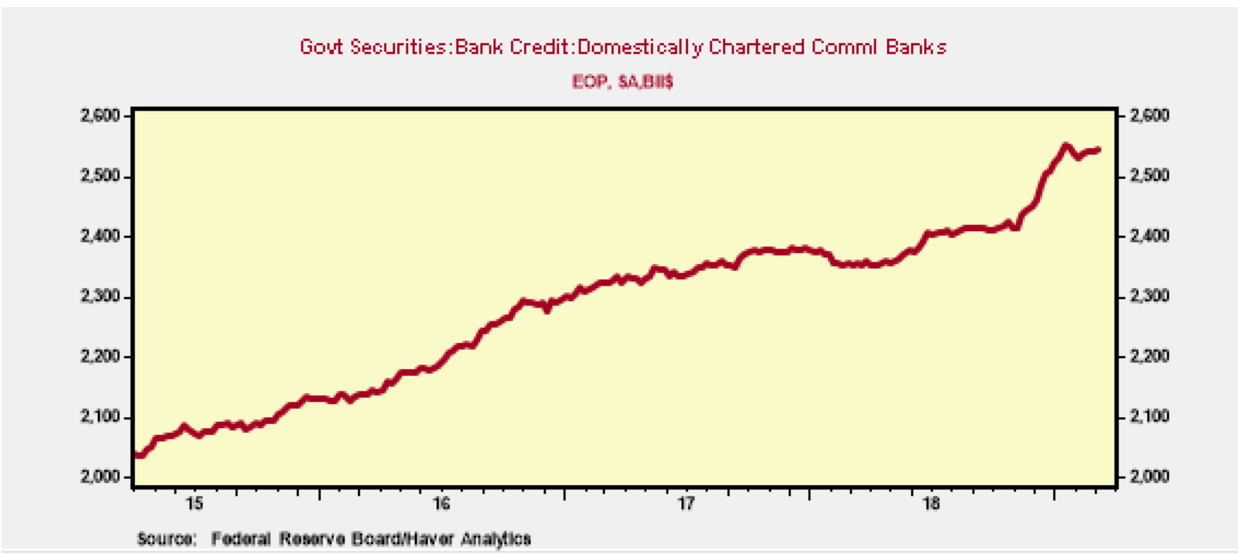
Ahead of Central Bank meetings this week the markets have recently traded in a very narrow range. Bond prices have rallied, and equity and commodity prices have been essentially unchanged. As expected, growth expectations and inflation expectations have both retraced slightly given the recent run up in both measures. Risk Premiums have remained tight as central banks pivoted abruptly in the 1st quarter to more accommodative. However, Japan and Europe have no ability whatsoever to ease and markets and the US despite the desires of the President and his staff are not going to cut rates unless markets sell off somewhat dramatically particularly given the relatively strong 1Q GDP and the continued strong job market. We will see on US China Trade talks but as I have said many times, we either get no deal or a deal which is non impactful but declared a huge victory by both sides. Growth Expectations are likely to high ahead of these scenarios.

The Damped Spring Model is currently expecting low realized volatility to continue for the next few months. While the counter trend dampers of the central bankers are not on the field which would ordinarily be a concern for the volatility outlook, portfolio performance is strongly positive across almost all asset classes and small drawdowns are unlikely to generate major liquidity events. Banks particularly in the US are very healthy despite stock market underperformance. As for geo political noise as past readers know we at Damped Spring consider geo political events to be noise by and large. However, the markets react to that noise and we suspect have fully priced in the most likely outcome of China trade talks which in our opinion will be more of the same, a declared victory with very little economic consequence. Many outcomes are possible but at this point only an extraordinary concession by the Chinese to import significant amounts of stuff will move the needle for the US economy or its companies.

<u>Flow and positioning</u>

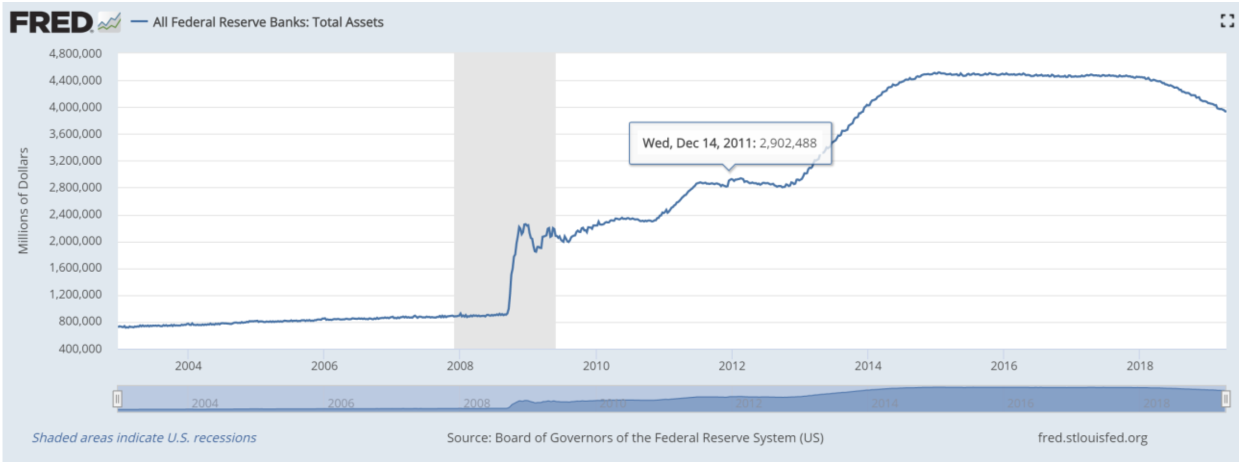
Positioning is little changed

Bond flows have been meaningful as Banks have slowed purchase of bonds

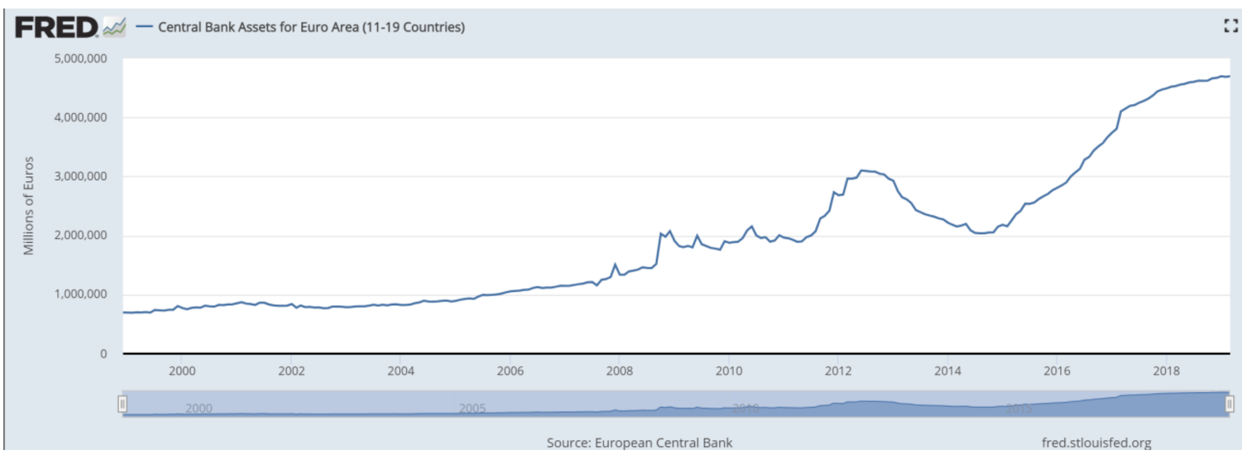


This slowdown gives banks the ability to once again buy bonds if the curve steepens.

The Fed continues to taper but the steep decline will flatten again in the months to come



The ECB Balance sheet is stuck at its peak level for the foreseeable future

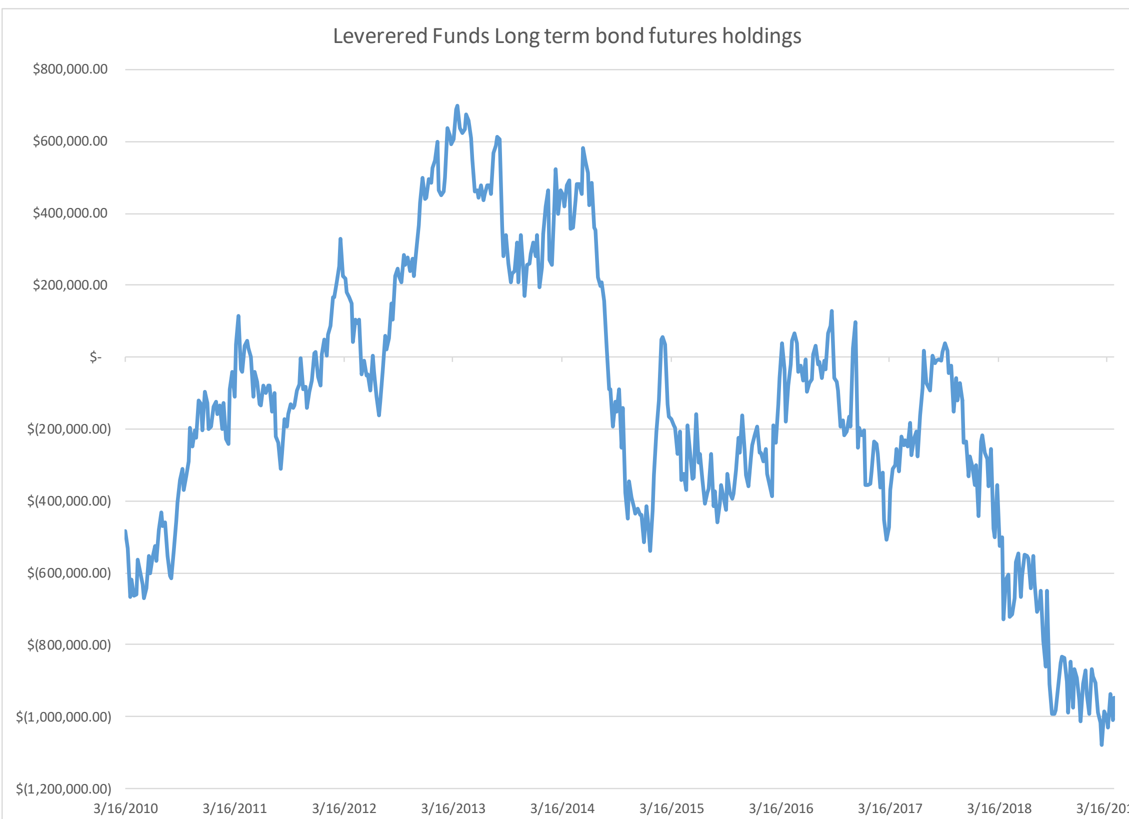


China continues to slowly sell US bonds which has a QT impact on risk premiums.

Institutional Bond flows have rebounded dramatically primarily in credit products.

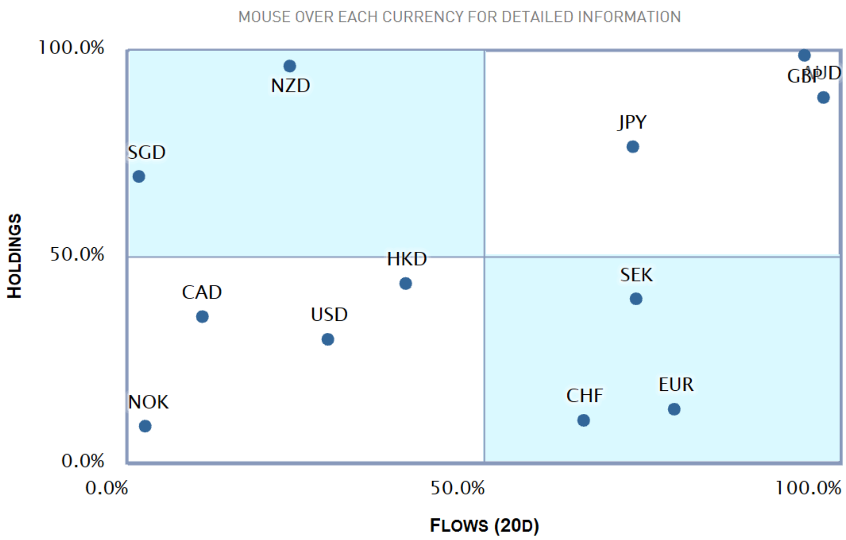
The buying is likely not sustainable.

However, Hedge funds are quite short long term bonds



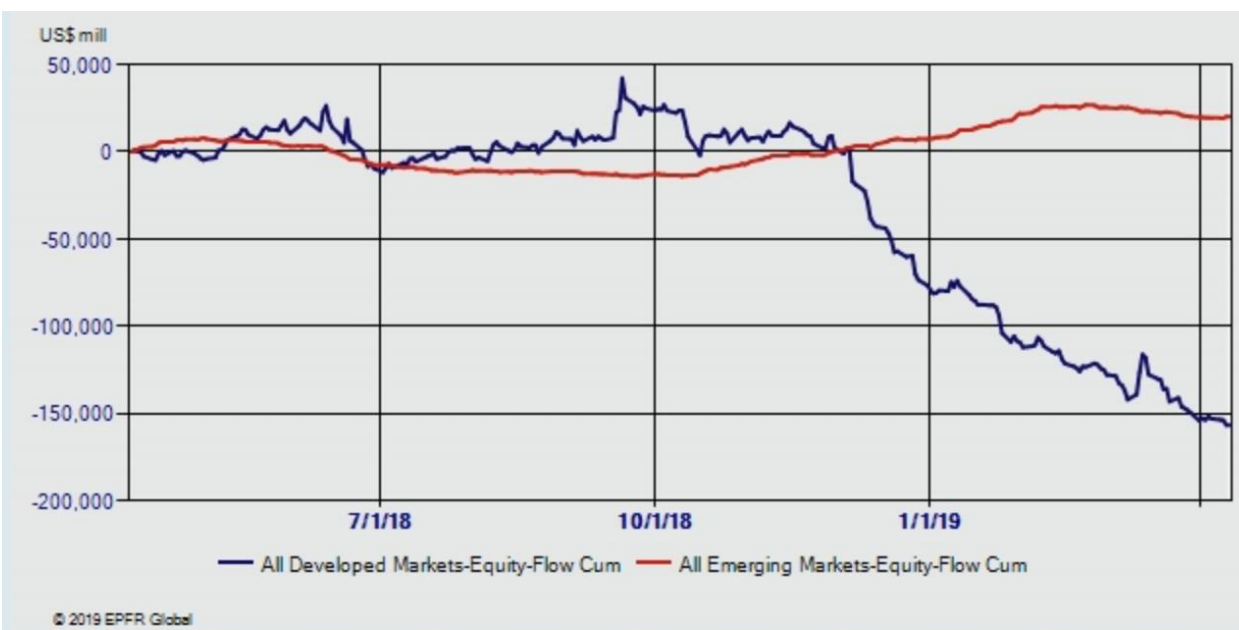
Currency markets are largely balanced with no large positions offsides besides the GBP which is massively over bought

Developed Markets - Flows and Holdings

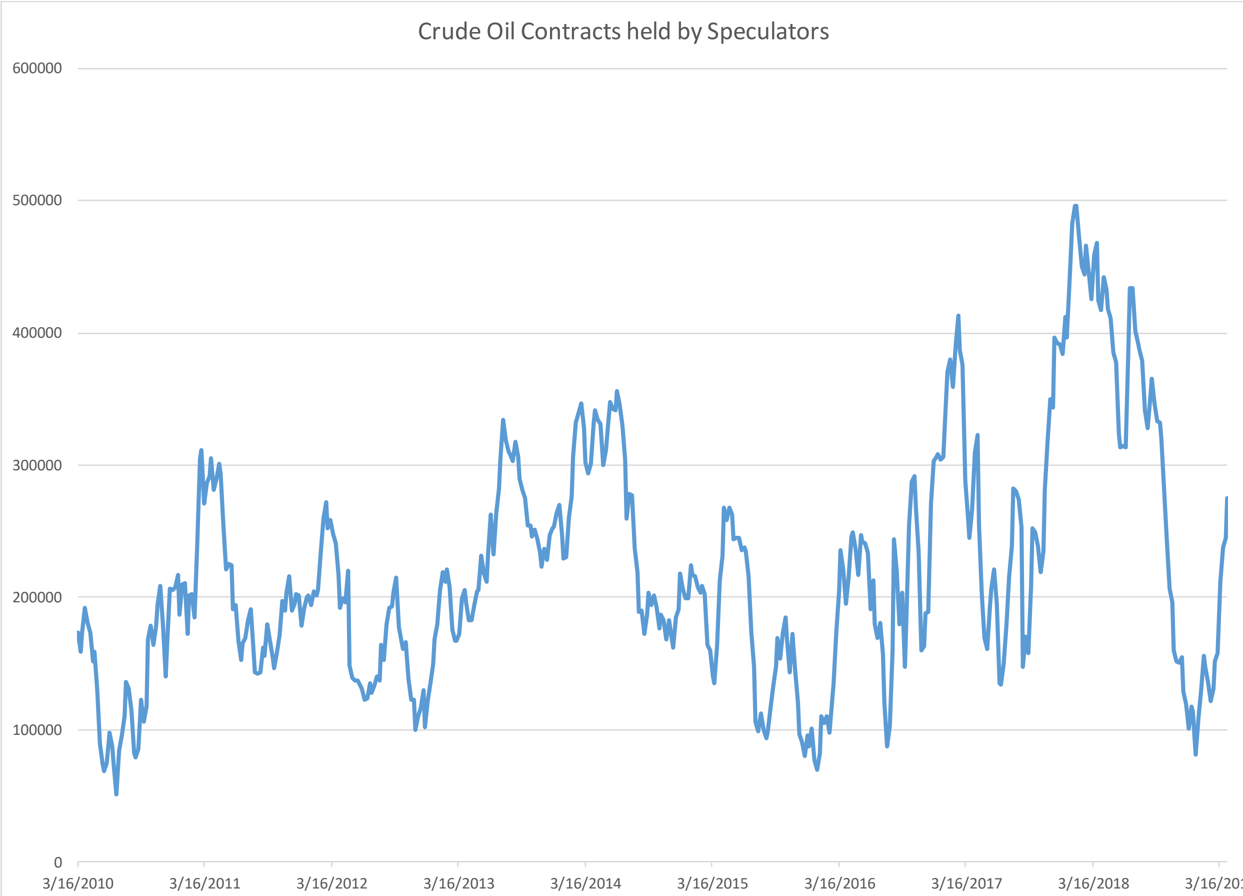


Blue quadrants indicate potential unwinds of overweights (upper-left) or underweights (bottom-right).

Equity markets continue to be dominated by the same trends as massive US share buybacks offset institutional portfolio equity exposure cutting



The oil market has had a huge runup in this rising growth contracting risk premium environment and aggressive buying by hedge funds is unsustainable.



Recommended Portfolio

How does that add up to a portfolio?

- Weakening growth expectations is bullish bonds and bearish stocks and commodities,
- Weakening inflation expectations is bullish bonds and stocks, and bearish commodities
- Risk premium expansion is bearish all assets.

That combination of fundamental views is modestly bullish bonds, and modestly bearish stocks and a triple whammy to commodities.

Volatility is low but as mentioned above is likely to realize even lower over this quarter, for that reason, I suggest positions using short atm put and call spreads to be certain of your downside while collecting premium as markets are likely not going to move much in the near term

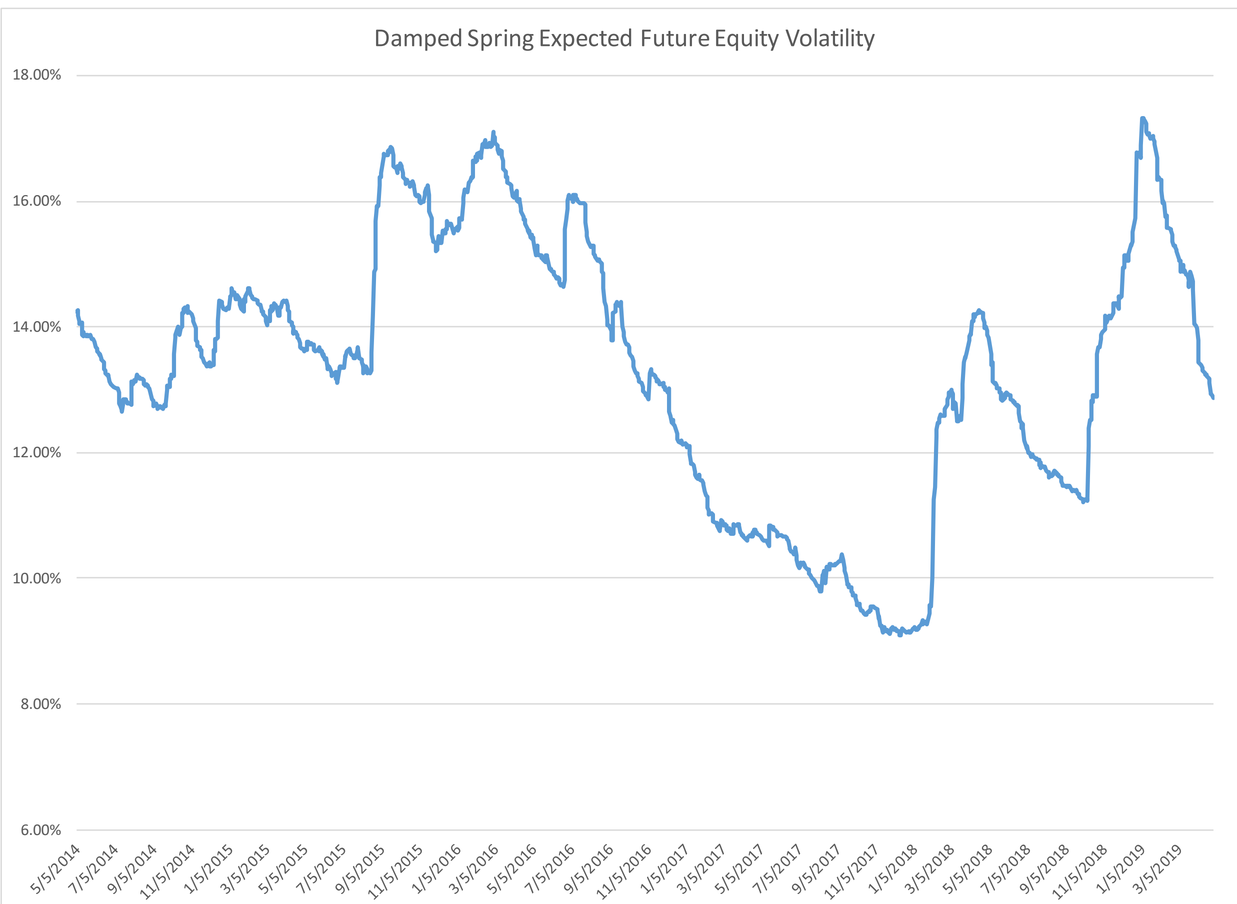
Current portfolio

- Short put spreads on TY
- Short call spreads on SPX
- Short call spreads on Eurostoxx
- No recommendations on currency due to coincident central bank policy and neutral positioning
- Max short call spreads on Oil due to triple whammy of fundamentals and overbought conditions

Framework

Global realized volatility has collapsed over the past 4 months as central bank pivots have eased the pressure on portfolio deleveraging while tepid and within expectations growth and inflation data has been announced. Furthermore, the political noise has been reduced with the release of the Mueller Report and the delay of Brexit. Long volatility positioning has been largely eliminated at losses and there is currently no sign of offside short volatility positioning.

Our forecast for future realized equity volatility continues to drop rapidly and as we will discuss below the framework which drives our expectations remains extremely benign



We do not expect our estimate to fall below the 2017 historic lows, but further low realized volatility drops are predicted.

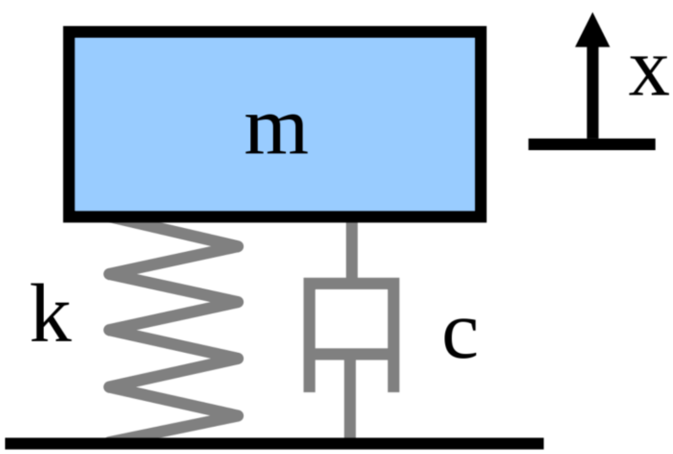
Why? Let's look at the framework

The Damped Spring Framework has four basic principles:

- Changes in expectations drive market prices
- Market prices can overshoot and undershoot "fair value"
- Positioning and Investor conditions can impact flow which can lead to mispricing
- The Damped Spring Model is useful in understanding market, market participant and market dampening participant conditions

The inputs for analysis are taken from a wide range of data sources and systemized where possible. Graphs of relevant data will be provided throughout the report.

The Damped Spring Model describes markets as a physical system.



Where

- m is the market
- x is a market moving influence
- k is the springiness of the market and its ability to incorporate the market moving influence
- c is the damper of various participants and market structure elements which counteract volatility created by market moving influence and market participants seeking new price equilibrium

What about today?

<u>Market moving influences (x)</u>.

- Brexit and to a large extent Trump are off the table through the summer.
- Earnings are almost done in the US.

- Central Banks are on hold waiting for data.
- We can never know what exogenous shocks can arise but, the predictable sort, are unlikely.

Markets Ability to absorb shocks (k)

- Investor performance has been strong which is consistent with drawdowns that are shallow.
- Banks and Broker/Dealers who provide leverage to investors and medium-term liquidity, when necessary, are in good shape in the US and ok shape around the globe.
- Portfolios having derisked in 2018 have some capacity to add risk.
- A negative is that Government deficit expectations are growing, and the paper will need a home.
- However, QT will stop by September and that provides some offset.
- Corporations continue to buy shares
- Another possible negative which has yet to fully develop is the squeezing out of investors by IPO issuance. The proceeds of those IPO's will go into the real economy and not the stock market so some ability to absorb supply shocks may develop.

Move countering forces and mechanisms (c)

- The Big Deal for the future of volatility will come when the central banks are tested. The ECB and BOJ will fail a declining growth test for sure as they are out of ammunition. The US has shifted radically to more accommodation and it will be a test of the willingness to implement further shifts if the economy weakens given the likely extreme pressure that Trump exerts. The US will also face a real test of Fed independence if growth holds or improves and inflation becomes a real threat. My expectation is they will fail that test miserably. But today the lack of central bank guardrails can be largely ignored.
- US banks/Broker Dealers are shifting toward added risk capital for medium term liquidity which should provide a meaningful counterweight to market moves
- Non-Traditional market makers continue to enter the field and are volatility killers.
- Market Mechanisms continue to evolve and remain neutral now.

Adding it all up

A combination of less impactful news with strong performance by traditional market participants and healthy medium-term liquidity providers is usually enough to keep realized volatility quite low. Volatility would likely to go even lower if central banks were willing and able to adjust policy but for the next quarter at least we think the environment will benign.

Current Model Portfolio performance and recommendations

	Assumed Portfolio size	100,000,000				
	LTD P/L	292,312				
	Total Returm	0.29%				
Date	Position	Entry Price	Amount	Worst case loss	MTM	P/L
4/15/2019	SPX 2910/2960 June Calls	25.8	-207	500,000	32.6	(140,496)
$/15/2019	SX5E June 3500/3550	8	-1190	500,000	16	(95,238)
4/15/2019	CLA June 64/65 Calls	0.53	-4255	2,000,000	0.47	255,319
4/15/2019	TY June 123.5/122.5 Put	0.484375	-1939	1,000,000	0.34375	272,727