Convexity Maven

A Commentary by Harley Bassman

June 30, 2020

"With a Mighty Hand and an Outstretched Arm"

Deuteronomy 26:8

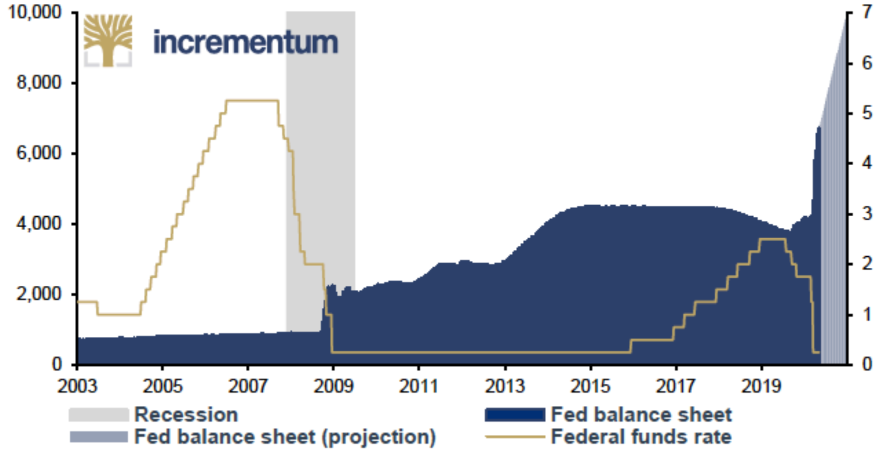
Let's be perfectly clear, I am not about to violate the first and third Commandments by implying the Federal Reserve (FED) is divine; that said, one must wonder if the common parlance of "the almighty US Dollar", which is in conflict with the second Commandment, will direct some folk South in the afterlife.

No matter – if a thirty-five-year career as a mortgage derivatives trader has not already condemned me to a slow ride down the Styx, then I am likely safe to pen a Commentary about the FED exercising its absolute power over the financial system.

A clever eye will notice that I did not say "U.S. financial system", and this was intentional. Since the USD still maintains its reserve currency status garnering perhaps two thirds of international trade, domestic FED policy is effectively Global monetary policy.

Today, I consider the implications of the FED's newly stated "guidance", and a few investment ideas that feed directly from its policies.

Across the spectrum, it has become an inconvenient truth that facts contrary to one's opinion are bothersome. Two such facts that receive no respect are:
1) Fiat currency created by the Central Bank at a rate greater than economic growth will eventually lead to inflation; and 2) The yield level of risk-free interest rates will have an impact upon the value of other assets.



Source: Reuters Eikon, Incrementum AG

Supporters of Modern Monetary Theory rest their heads upon the soft pillow of the FED's balance sheet -maya bars- exploding over the past decade while the Consumer Price Index (CPI) has barely pulsed a heartbeat.

This is utter nonsense; just because I have never been struck by lightning does not encourage me to swing a five-iron in a thunderstorm. Of course, the excessive creation of fiat currency leads to inflation; if it didn't, I can assure you there would be a shelf of books detailing such miracles over the past five thousand years of recorded history.

The lack of inflation should not distract one from recognizing that our financial economy is presently overwhelmed by too much debt, both public and private; this is what necessitated the FED's introduction of an alphabet soup of asset support/purchase programs.

GDP = Money * Velocity = Price * Quantity

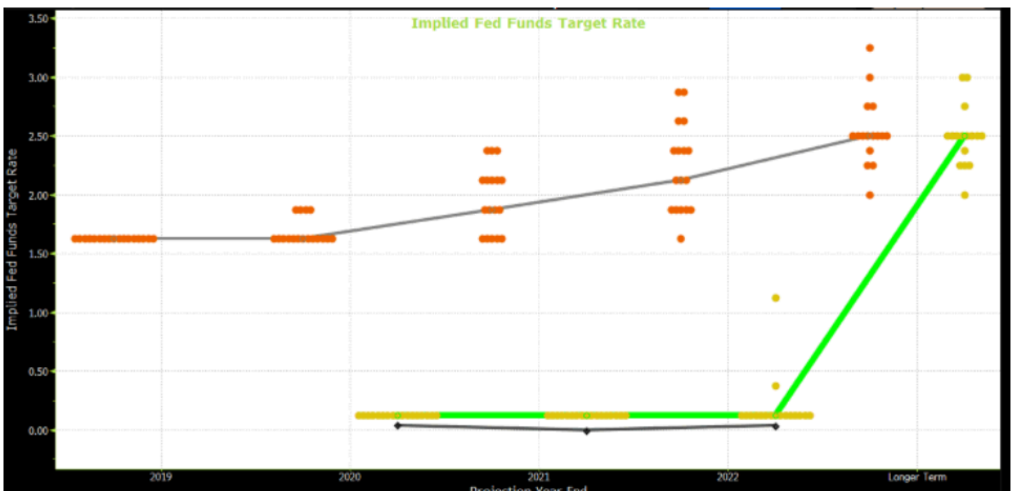
There are only two ways to resolve a debt crisis – either default or inflate with the caveat that inflation is simply a slow-motion default. (Yes, strong real GDP growth can also extinguish debt, but let's stipulate this avenue as closed.)

So far, old school FED economics has not worked as planned. Despite a massive increase in Money (M2), the Velocity of money has declined at a similar pace.

Ever so clever, the FED seeks to increase Monetary Velocity via Financial Repression to create inflation that will depreciate nominal debt to de-lever both the public and private balance sheets.

The FED reduced its overnight interest rate target to near zero at the start of the Great Financial Crisis (GFC), but this could not halt the decline in the Velocity of money. A possible explanation is that risk takers (both businesses and investors) were uncertain how long they could cheaply fund their activities.

To resolve this issue, the FED offered "guidance" that the prior projected rate path -fulvous dot- would not only be reduced to near zero, but would also be held at this level -mindaro dot- until the end of 2022.



Source – The Bloomberg

Effectively 'promising' to hold short-term rates near zero for thirty months is a muscular policy to force money out of safe assets and into riskier ones. The theory is that an increase in Asset velocity will transmogrify into Monetary velocity; and thus, create the inflation that can reduce the real value of debt while also increasing nominal wealth.

Is this good Public Policy, of course not; but that boat left the harbor in 2011 when the "Grand Bargain" between President Obama and House Speaker Boehner to balance taxes and social spending collapsed.

I had suggested that Modern Monetary Theory would be implemented sometime between 2021 (Democrats win) and 2029 (Republicans win) since there is no longer a viable policy path to fund the retirement of the Baby Boom generation. COVID-19 has simply accelerated this process; MMT has advanced from a questionable concept to actionable US Government policy.

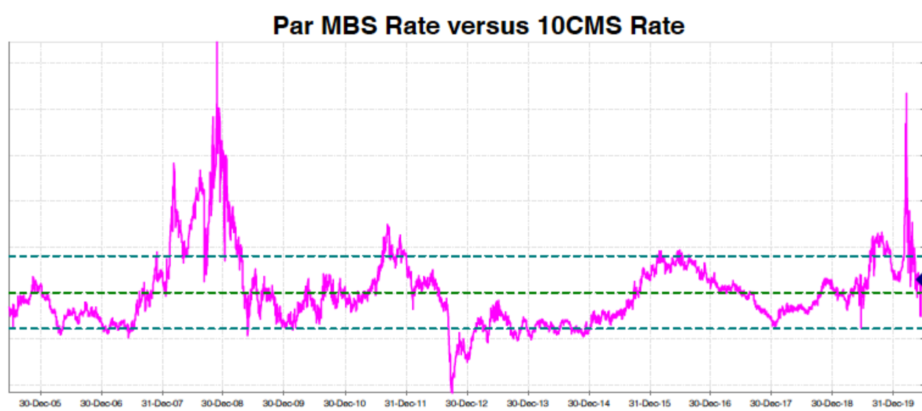
Notwithstanding my view that the long-run combination of Financial Repression and MMT will end in tears, success is likely in the medium-term.

Mortgage REITs

As a reminder, a Mortgage Real Estate Investment Trust (mREIT) is different from the more common Equity REIT. mREITs do not own commercial real estate assets (hotels, shopping centers, apartments), but rather mortgages supported by residential property.

Mortgage REITs are at times a rather simple structure; they buy securities guaranteed by a Government Agency (Fannie Mae / Freddie Mac / Ginnie Mae, aka GSEs), hedge out the duration risk by shorting Swaps or Treasuries, and buy a few options to control the negative Convexity created by the embedded prepayment option. They will do this using leverage, perhaps ten to one.

Other mREITs will buy non-agency mortgages (quality securities not backed by one of GSEs) and Mortgage Servicing Rights (MSR). Using MSR as a hedge (instead of swaps) has the benefit of reducing their -pizzazz line- spread risk, but substantially increases the exposure to negative Convexity.



Source – Credit Suisse LOCUS unless otherwise noted

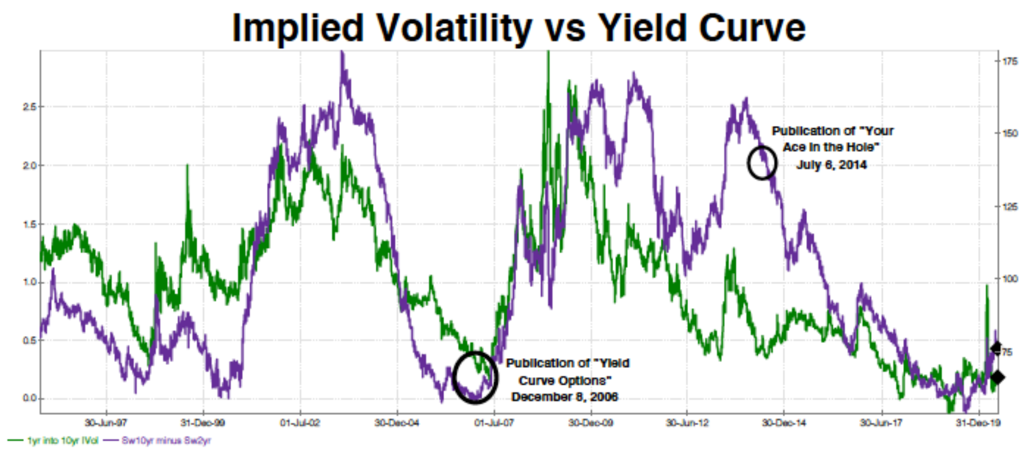
As currently advertised, Government policies should be quite supportive.

1) Thirty months at a near zero funding cost is a huge benefit; not only is the low rate valuable when used for leverage, but also the thirty month 'promise' reduces the need to hedge their short-term rate risk.
2) The FED has indicated they will continue to buy MBS; notice how the mortgage spread has reverted nearly back to its long-term average.
3) Financial Repression will depress volatility, both Realized and Implied.

   This last point is most important, so let's dig a little deeper.

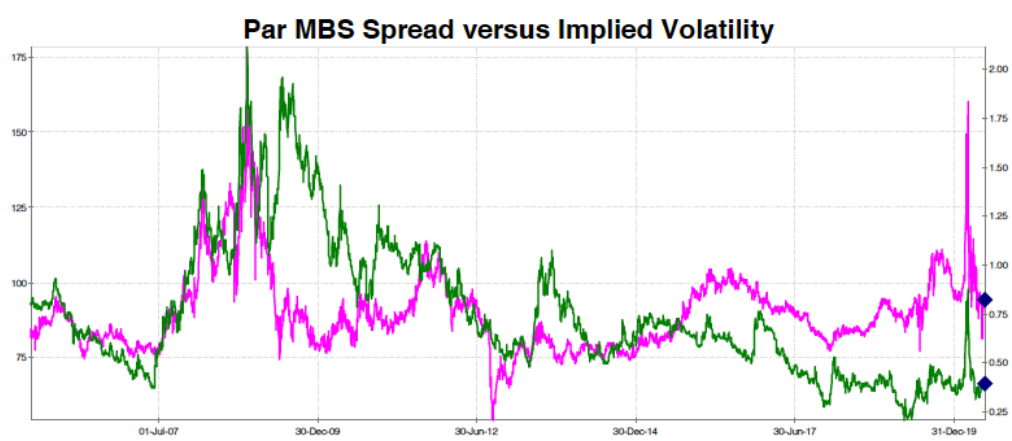
The FED's effective promise to hold their rate near zero until late 2022 combined with some version of Yield Curve Control (YCC) to absorb the financing of MMT should limit how much the curve can steepen.

Yield Curve shape is a primary transmission method for Financial Repression. Notice the -thyme line- of Implied Volatility is well correlated to the shape of the -majorelle line- Yield Curve.



If the FED limits how much the Yield Curve can steepen, the cost of hedging for the mREITs will decline, which may well lead to increased distributions.

An interesting knock-on effect is the potential for an increase in Book Value (BV) as assets tighten to their benchmark. At 30,000 feet, the -cerise line- MBS spread follows the -hourbour line- of Implied Volatility. To the extent the FED further reduces Volatility, both mREIT cash flows and asset values can improve.



The BV of Mortgage REITs was crushed in March. Since then, they have mostly cleaned up their balance sheets and now yield about 11%. This is a huge yield vs. other assets; moreover, they mostly trade at a discount to their March 31 BV.

Buy the S&P 500 ?

I must confess the notion of buying the SPX near 3000 sounds silly. Over 13% of the labor force is unemployed with an 8% year-end rate as a best-case. Airports are barely running at 20% of capacity, commercial real estate is a disaster, and small businesses are still closed as Phase 2 commences in NYC.

More worrisome is the seasonal "second wave" due in October, as well as the possible jump off the Fiscal cliff when CARE and other benefits are curtailed.

Pushing back against this economic disaster the FED has printed nearly $3tn of M2 in three months, a roughly 65% annualized increase. Follow the money ?

From the Taper Tantrum (2013) to last year, institutional investors could buy T10yrs at 2.40% and T30yrs at 3.10%. While this is not a great return, it did fit well into a balanced portfolio and offered income, upside and hedge value.

But unless one believes in negative interest rates (which I do not), T10s @ 0.67% and T30s @ 1.42% offer none of the above.

Your Bloomberg will quote a dividend yield of about 2.0%, but that is using trailing distributions, which will surely be reduced; but by how much ?

Fortunately there is a futures market for SPX dividends. The 2021 dividend peaked at $63.75 before kissing $34.00. It has now settled near $50; and this is likely a conservative value since dividend futures tend to trade cheap because they are a primary hedging tool for Wall Street structured note dealers.

ASDZ0 Index | Export | Settings | Futures Contract Table

S&P 500 Annl Div | As of 06/25/20

Source Chicago Mercantile Exchange | Session | Display Quoted Value | Type Specific

Exchange Symbol SDA | Currency USD

Aggr Vol 0 | Aggr Open Int 154,064

Futures | Spreads

Description	Last	Chg Settle	Time	Bid	Ask	Open Int	Volume	Yest Settle
1) Spot	30.05	+.01	17:29					30.04
2) Dec20			6/24	51.70	55.70	49075		54.90
3) Dec21			6/24		51.15	43346		50.60
4) Dec22			6/24	43.70	52.95	27321		50.65
5) Dec23			6/24	41.00		21842		51.20
6) Dec24			6/24			5514		51.05
7) Dec25			6/24			3159		51.85
8) Dec26			6/24			2028		52.00
9) Dec27			6/24	52.25		1136		53.95
10) Dec28			6/24	53.15		567		55.10

The right -aureolin column- indicates some confidence that SPX dividends will bottom out down about 15% from last year's realized dividends of $58.21, and then resume their historical annual increase of about 2.5%.

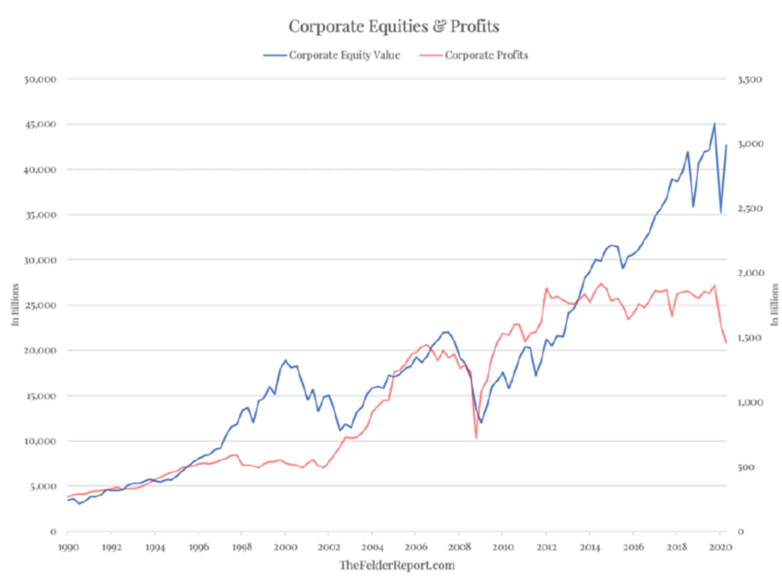
A projected \$50 dividend in 2021 versus an SPX level of \$3000 is a yield of 1.67%, or 25bps above the T30yr. Is this dividend safe ? The SPX is the 500 largest U.S. companies of which the top five make up a 21% weighting. This pandemic will burn out as herd immunity is eventually realized; and surely the top corporations will continue to gain market share until then. Is this bad public policy – Yes ! But this is an investment Commentary, not a sermon.

Most public Pensions have a statutory hurdle rate near 7%, and an Insurance portfolio likely needs a 6% rate to keep the lights on. When the risk vs return profile is fully considered, it is almost a certainty that <u>institutional funds must flow out of Bonds and into Equities</u>.

1) The T30yr bond yielding 1.40% would incur a 31% price decline if rates move back to 3.00%; the March 2019 level – an Equity-type loss.
2) Actual SPX earnings in 2019 were \$163; let's clip it by 15% to \$138.50. This is a P/E of 21.7 at 3000 - an earnings yield of 4.65% or +400bp/T10y
3) Perhaps it takes three years for earnings to return to \$163, at 3000 that is a P/E of 18.4 for an earnings yield of 5.40% - close to current Junk yields.
4) Equities have unlimited upside vs. Bonds that pay Par at maturity.

Bearish pundits note the historically high P/E ratio for the SPX; and a popular (and rather clever) new metric is to scale the -steel line- SPX level to -carmine line- National profits. A portion of this out-performance is due to the leverage of stock buy backs, but I suggest the real reason is massively lower interest rates.

From 1998 to 2008 the T10yr averaged 4.75% while from 2012 to 2019 it averaged a 2.25% rate. Such a rate change would lift a T10yr by 22% and a T30yr by 54%. If Equities are discounted cash flow, how can rate not matter ?



I am utterly confounded that the creators of the CAPE (cyclically adjusted p/e ratio) insist there is no correlation with rates. Suppose rates were 10%, Equities at a P/E of 20 would be silly unless GDP was advancing at over 8% annually. As such, the converse must be true - low rates allow for P/E expansion.

The Trade - Listed Option Idea:

S&P 500 = 3000   ~SPY = 300 Forward = 286.25
Buy December 16, 2022 call; K = 340 @ $21.0; Vol = 21.25%; Delta = 37%
Sell December 16, 2022 put; K = 230 @ $21.5; Vol = 27.50%; Delta = 23%

1) This is a "better beta" idea; substitute this for your current SPX exposure;
2) Steep volatility skew initially creates long Convexity and short Theta;
3) Call strike is the old high, put strike is a 16.6 P/E with E = $138.50;
4) Monetizes the rate differential to depress the forward to cheapen the call;
5) The longest listed expiry available; it allows one to ride out the pandemic.

It seems crazy to be offering a bullish trade idea in what is at best the third inning of a pandemic; but the FED has gripped the financial markets with its Mighty Hand and has "promised" not to release it anytime soon.

If the economy realizes a U-Shape recovery, stocks will jump to new highs. If the economy founders, the FED will support financial assets via zero rates and QE~ until congress can load the MMT fiscal cannon. Indeed, this will not end well in the long-term, that's a problem for another day.

Perhaps retail will shiver along with the bearish pundits, but there is no Plan B for institutional money. Buying bonds at 1.42% is near certain suicide since the terminal payoff is in fiat currency that the FED is actively depreciating. Buying Equities is a claim on real assets that offer a long-term inflation hedge.

Europe and Japan have both tried "whatever it takes" finance with some success; now imagine such policies from the unconstrained hand of the Central Bank that manages the Global reserve currency.

I already regret this epilogue; so with all due respect to YHWH:
Jeremiah 32:17 – *"Nothing is too difficult for You !"*

Harley S. Bassman
June 30, 2020

Your comments are always welcome at: harley@bassman.net
If you would like to be added to my distribution, just ping me.

For reference literature on the financial markets - particularly about options and derivatives - I will immodestly direct you to my educational archive at:

http://www.convexitymaven.com/themavensclassroom.html

If you still have kids in the house, please take a vacation that is more interesting than the Four Seasons, Costa Rica – life is not a dress rehearsal. Turn off the Crackberry (did I just date myself ?) and explore with the family. You don't need to break the bank, rent an RV and see the U.S. We traveled with our four kids on five incredible RV trips.

http://bassman.net

If you are an institutional investor, I can highly recommend:
Hunter Davis at BNP and Jordan Brink at Morgan Stanley

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