The Convexity Maven

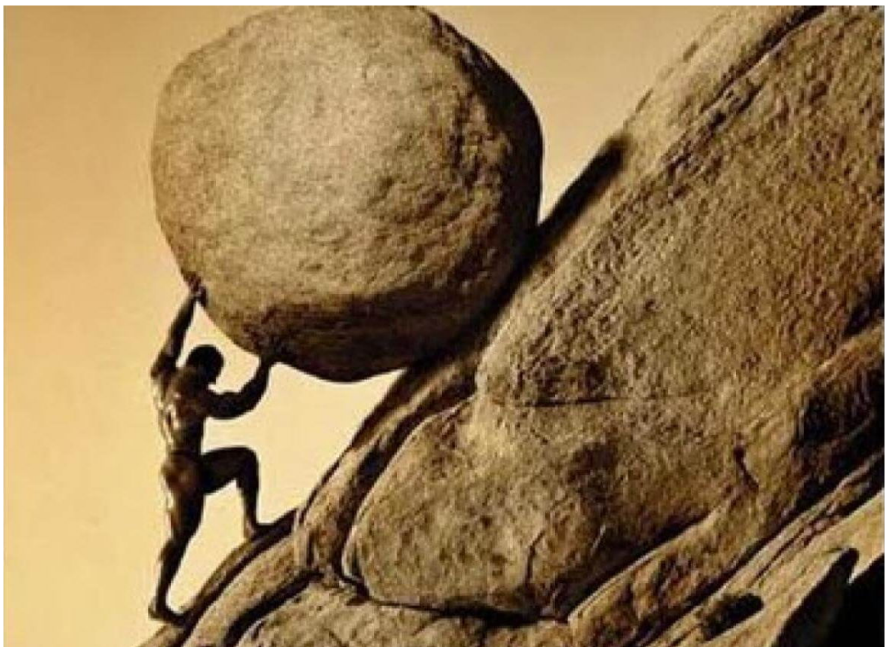
at

Simplify Asset Management

A Commentary by Harley Bassman

November 2, 2021

"A Cheerful Sisyphus"



Over the course of a dozen years and the terms of three Federal Reserve Bank (FED) Chairpersons, the FED has been working dutifully to create inflation in the US economy.

Seemingly at odds with their Congressional mandate to "promote effectively the goals of maximum employment, stable prices, and moderate long-term interest rates", the FED is well-aware that inflation is the only solution to unravel our problem of excessive debt, both public and private.

As a reminder, there are only two ways out of a debt crisis – either default or inflate with the caveat that <u>inflation is simply a slow-motion default</u>.

Now let us consider the implications of what might occur if the FED, with the unanticipated support of COVID, has finally achieved its goal.

While it may be a reach to claim "it takes a village" to crash the economy, there was certainly no lack of bad actors and actions that precipitated the Great Financial Crisis (GFC) of 2007-09.

But regardless of blame, at the end of the day there was not only too much debt, but also much of this debt was of poor quality.

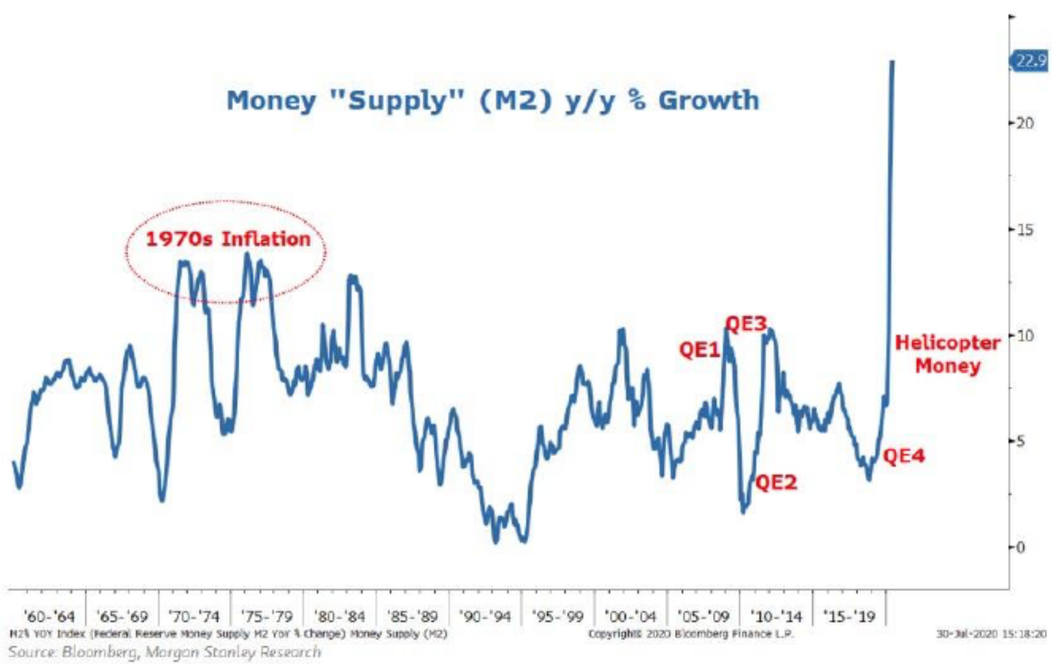
At a similar time at the onset of the Great Depression, Treasury Secretary Andrew Mellon advised President Herbert Hoover to "Liquidate labor, liquidate stocks, liquidate farmers…it will purge the rottenness out of the system."

If this path was unacceptable during the harsh times before FDR's introduction of Social Security and LBJs creation of the Great Society, it was certainly out of bounds for our modern-day FED.

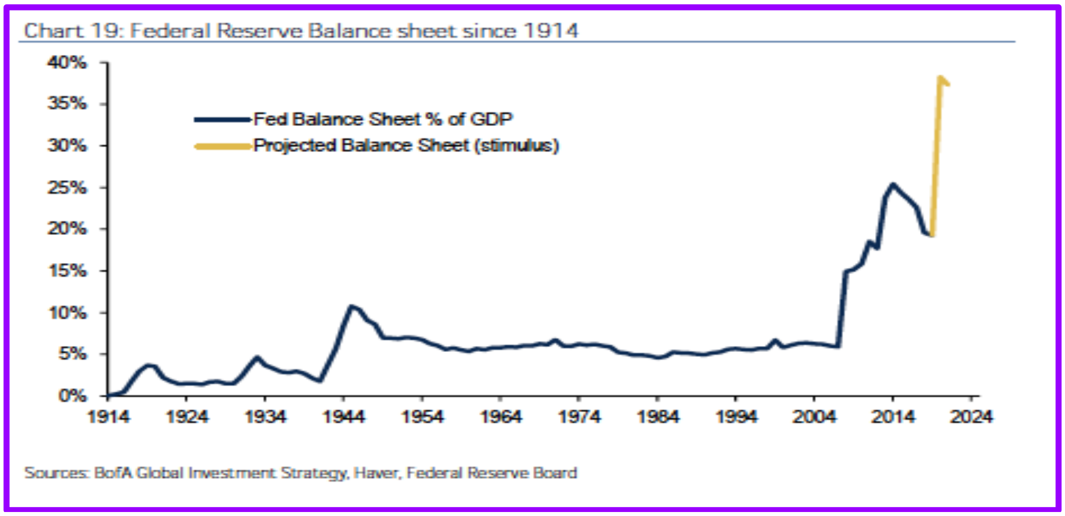
Thus, the FED's clever idea, which I still support, relied upon Milton Friedman's observation that "inflation is always and everywhere a monetary phenomenon".

GDP = Money * Velocity = Price * Quantity

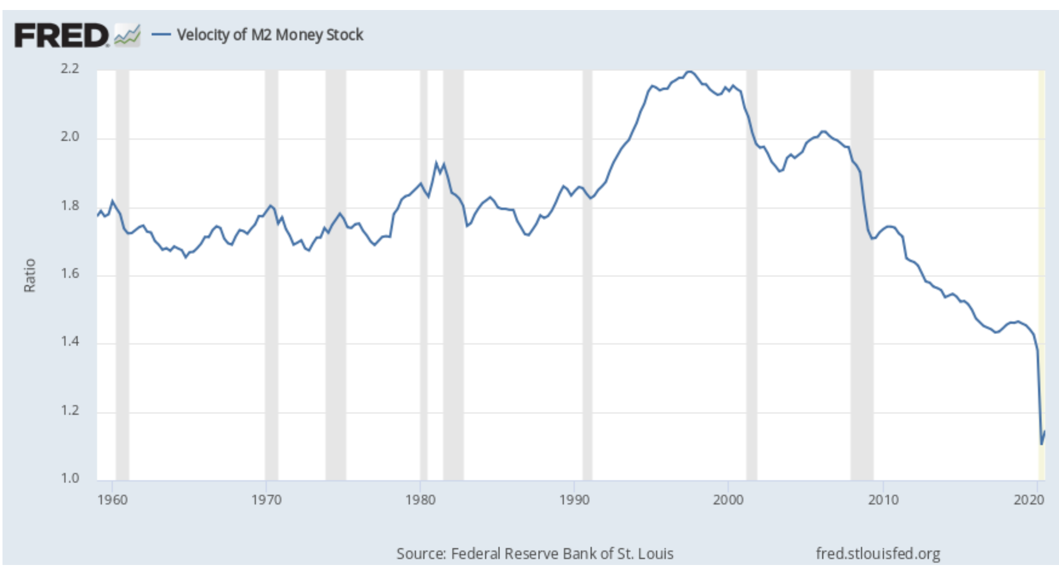
Via a process most civilians would call "money printing", but what the FED coyly dubs Quantitative Easing (QE), the -feldgrau line- money supply expanded.



The FED injected this money into the economy via its Large-Scale Asset Purchase (LSAP) program; here the FED went into the open market and purchased from Wall Street banks Treasury and Mortgage securities and placed them on to their -little boy line- balance sheet.



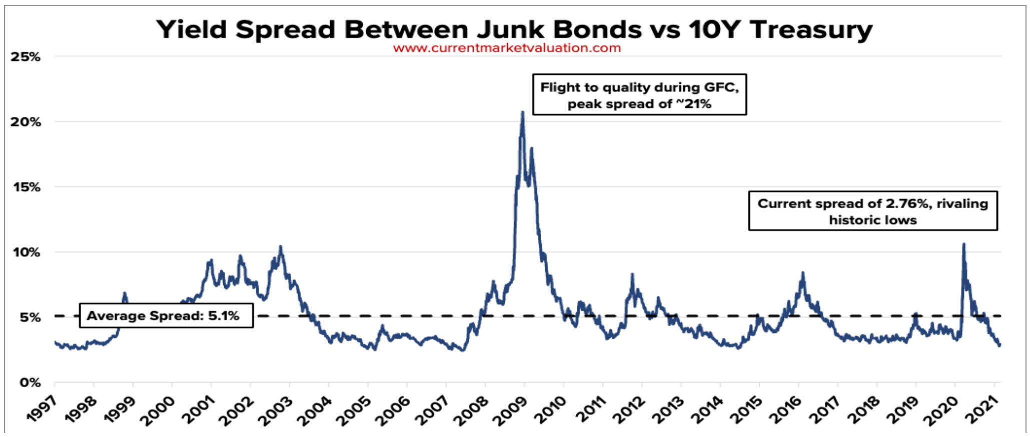
The (not) unreasonable notion was that, per the Friedman's monetary policy equation, an increase in Money would force an increase in Price (inflation), assuming Quantity and Velocity remained relatively constant.



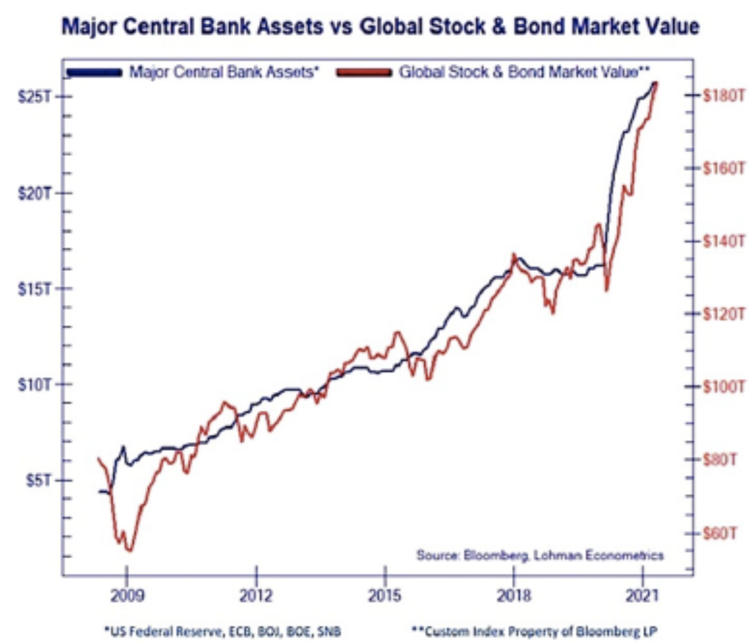
It was an unexpected bother for policy makers that –air force line- Velocity collapsed, muting the impact of their monetary expansion.

Slightly preceding, but concomitant with the LSAP program, was the FED's Zero Interest Rate Policy (ZIRP). A 0.25% overnight rate, combined with the LSAP purchase of ultra-safe USTs and MBS, pushed fixed-income (bond) investors into riskier assets to achieve their yield/return targets.

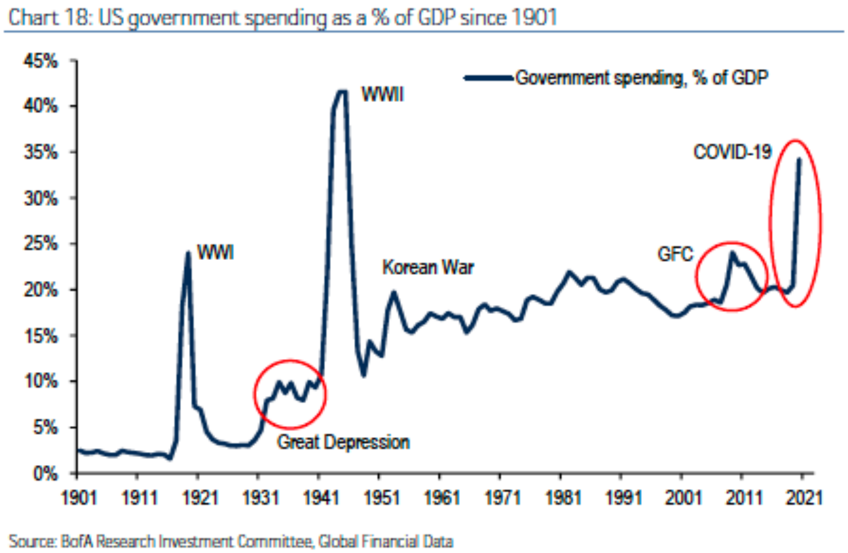
The objective was to force-fund risky ventures, and thus revive Keynes's so called "animal spirits" to pull the economy out of recession. Chalk up a success as the -maya line- Junk bond spread has compressed such that the High-Yield Index now barely yields 4.00%, an oxymoron almost by definition.



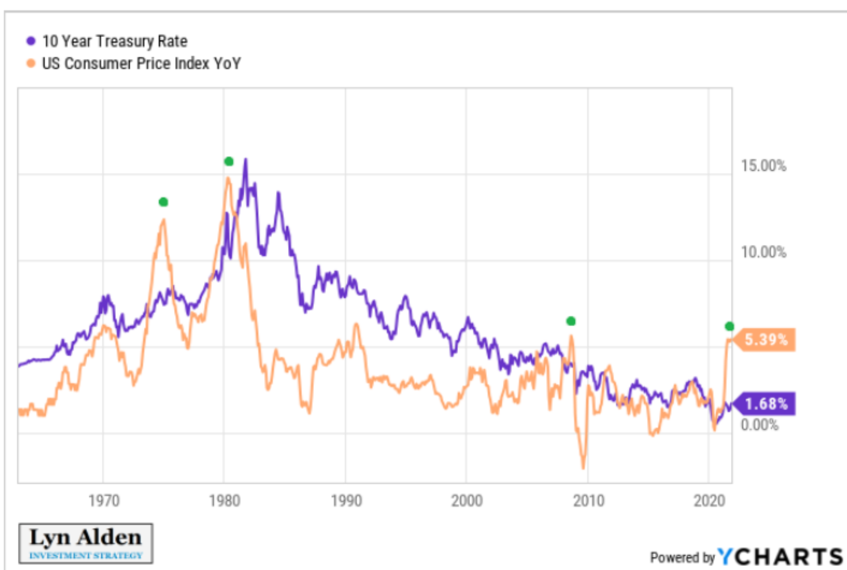
But let's be clear, <u>it is bogus to say that Western Central Banks have not created inflation</u>. It has been an unintended consequence, and a public policy disaster, that instead of increasing wages and reported CPI, their -phlox line- money has fed directly to -Yale line- financial Assets.



"Be careful what you wish for" might be timely advice for the FED, since their request for Fiscal support was granted by the arrival of COVID. While the FED could inject Money into the system, only the Federal Government can deliver it directly -Prussian line- to the wallets of consumers who will spend it.



The -gamboge line- inflation arrived soon after the vaccines were approved with a third quarter rate of 5.4%; nearly triple the 1.95% average since 2016. Paradoxically, the -glaucous line- 10yr interest rate at 1.55% is unchanged from its pre-Covid level creating a negative "Real" Interest Rate.



While it is possible inflation is a short-term "transitory" blip related to the rebound from Covid, let's consider investment opportunities if inflation remains elevated well above the FEDs somewhat floating ~2% target.

Buy Equities

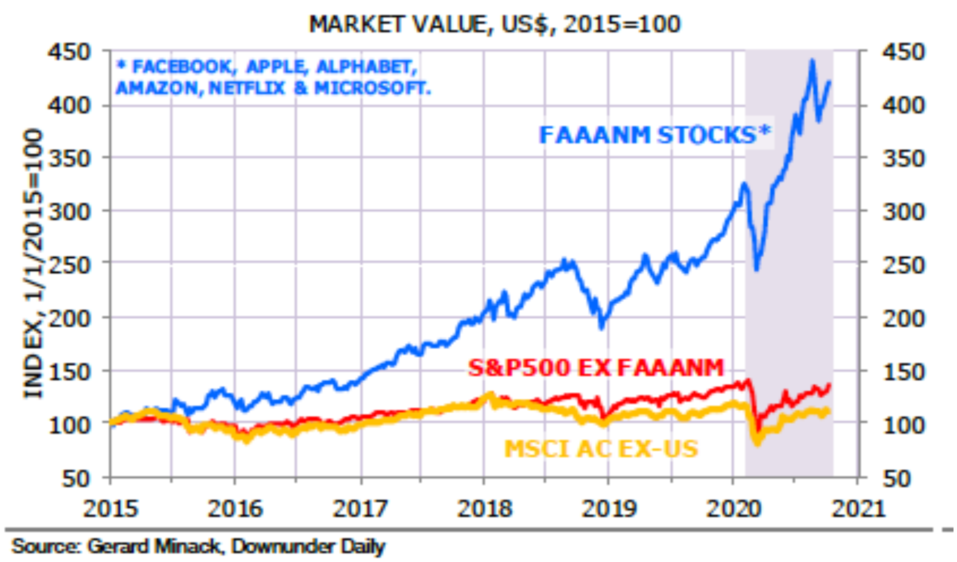
In theory, stocks are the Discounted Present Value of a company's earnings over the life of the firm. For non-financial readers, this means determining the value of a dollar today (current stock price) versus a dollar tomorrow (future earnings).

If we are entering into a period of increased inflation, a company can raise their prices (and earnings) slightly ahead of rising input prices. If interest rates (the discount factor) remain constant, the value of their stock will rise.

However, there is an inflection point where interest rates (usually) catch up to inflation, and this greater discount rate will offset the enhanced earnings.

This begs the question of what might occur if, anomalously, earnings were to inflate while interest rates declined ?

There is no reason to guess as this is precisely what has occurred over the past few years and explains the leadership of the six -space cadet line- FAAANMs.



Unless the Government (finally) reins in these monopolies, I will stipulate that the FAAANMs will earn oodles money in the future; so, then the only question is what is the value of this pile of cash decades hence ?

Trust me on the math, but if the discount factor has followed interest rates, that would explain much of the price movement over the past three years. These stocks are effectively 70-year bonds with massive rate sensitivity.

Not to bury the lead, if the FED holds rates down (Yield Curve Control – YCC) while inflation runs hot, stocks can explode higher.

In the past, I have offered the many public policy benefits of the FED allowing long-term rates to rise while holding short-term rates low. [*"Open Letter to the FED"* – July 26, 2021]

But there is an equally compelling case that the FED should model their policy after the Bank of Japan (BOJ) and place an (explicit or implicit) cap on rates.

If you think inflation is not transitory, and a fearful FED will not allow interest rates to rise significantly, buying SPY is a fine idea. A better idea may be to check out some of Simplify Asset Management's convexity enhanced products.

But the big money idea is to **buy long-dated in-the-money call options**

Current SPY = 450;
Strike price = 400; (notice it is in-the-money by 50 points)
Expiry = January 19, 2024 [Listed option]
Price = 80

This option is 50 points in-the-money; with a "time value" of only 30 points (80 – 50 = 30); thus, the break-even requires a rally of a mere 6.67%.

Using this type of option also offers cheap leverage as one is "borrowing" the strike price until January 2024 at a rate of 0.72%.

Pencil to paper, a 30% rise in SPY would translate into a 131% gain in the option price at expiry. In a 40% rally in SPY, the option would gain 188%.

Be careful though, <u>if SPY is at or below the strike price at expiry, the entire option investment will be worthless</u>.

The interesting strategy is to take your $450 of investment cash, and instead of buying a share of SPY, buy the option at $80. Place the remaining $370 in a safe place. If the market tumbles hard, your option is worthless, but you still have the $370, which is effectively a "stop out" put option on your nest egg.

In a FED propelled rally, you have positively convex upside; conversely, on the downside your losses are effectively limited to a 17.78% portfolio loss.

If you like this, look at <u>listed call options on the SX5E</u> - the Dow 50 of Europe.

SX5E Index = 4200; Strike price = 4200; Expiry = December 19, 2025
Price = 365 [only an 8.7% breakeven over four years !!]

This option is listed on the EUX exchange, available to many financial "civilians".

Buy a House

Except for the ultra-rich (who will soon be taxed back to Earth), nobody "buys" a house; rather, they sign up for a thirty-year payment plan.

The rather daunting -rainbow- table details the math, so take a moment. The old rule was to allocate 28% of income to shelter. Working backwards with the Mortgage rate, one can figure out how much can be borrowed assuming a 10% down payment is required. At the macro-level, the median house price must be available to the median income; which creates a type of Affordability Index.

Year	Median Income	28% Monthly Payment	Mortgage Rate	10% Down-payment Affordable Mort Balance	US National Median House Price	Affordability Ratio
1992	$30,636	$715	8.39%	$107,814	$121,300	112.5%
1993	$31,241	$729	7.31%	$121,940	$126,142	103.4%
1994	$32,264	$753	8.38%	$113,648	$130,408	114.7%
1995	$34,076	$795	7.93%	$125,225	$133,433	106.6%
1996	$35,492	$828	7.81%	$131,936	$139,767	105.9%
1997	$37,005	$863	7.60%	$140,383	$145,050	103.3%
1998	$38,885	$907	6.94%	$157,507	$151,975	96.5%
1999	$40,696	$950	7.44%	$156,820	$159,842	101.9%
2000	$41,990	$980	8.05%	$152,558	$166,542	109.2%
2001	$42,228	$985	6.97%	$170,530	$172,608	101.2%
2002	$42,409	$990	6.54%	$178,975	$185,025	103.4%
2003	$43,318	$1,011	5.83%	$197,109	$191,383	97.1%
2004	$44,334	$1,034	5.84%	$201,513	$217,817	108.1%
2005	$46,326	$1,081	5.87%	$209,884	$234,208	111.6%
2006	$48,201	$1,125	6.41%	$206,193	$243,067	117.9%
2007	$50,233	$1,172	6.34%	$216,469	$243,742	112.6%
2008	$50,303	$1,174	6.03%	$224,014	$230,408	102.9%
2009	$49,777	$1,161	5.04%	$247,244	$214,500	86.8%
2010	$49,276	$1,150	4.69%	$254,786	$221,242	86.8%
2011	$50,054	$1,168	4.45%	$266,166	$224,317	84.3%
2012	$51,017	$1,190	3.66%	$298,355	$242,108	81.1%
2013	$53,585	$1,250	3.98%	$301,372	$265,092	88.0%
2014	$53,657	$1,252	4.17%	$294,958	$283,775	96.2%
2015	$56,516	$1,319	3.85%	$322,907	$297,258	92.1%
2016	$59,039	$1,378	3.65%	$345,692	$316,258	91.5%
2017	$61,136	$1,427	3.99%	$343,422	$313,250	91.2%
2018	$63,179	$1,474	4.54%	$332,435	$317,375	95.5%
2019	$68,703	$1,603	3.94%	$388,273	$321,500	82.8%
2020	$67,521	$1,575	3.11%	$423,005	$337,500	79.8%
2021	$68,725	$1,604	2.92%	$441,133	$382,600	86.7%

1) The large median house price increase from 2019 to 2021 is mostly due to a declining mortgage rate;
2) With mortgage rates below 3.00%, housing is still "cheap";
3) FED purchases of MBS (to reduce mortgage rates) is a financial dagger at Millennials who are now forming households and trying to buy a home;
4) If inflation is not transitory, and the FED limits rates via YCC, real assets such as Gold, Art, Jewelry (and maybe Crypto) will increase in price.

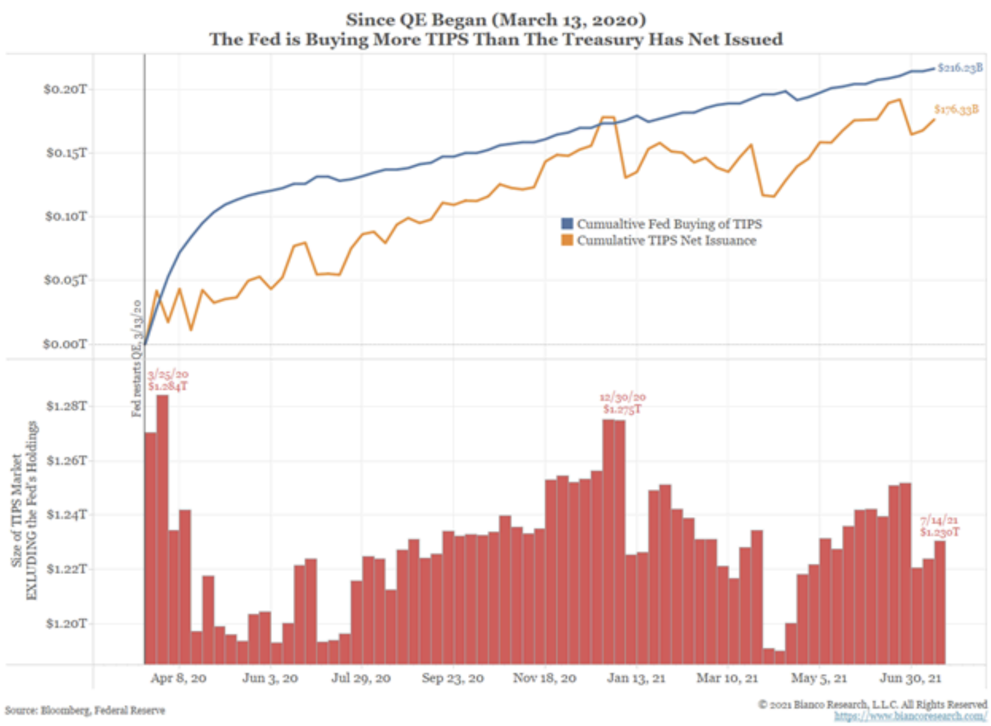
Buy TIPs (Treasury Inflation Protected Securities)

Please shoot me….you know I hate TIPs….but….

TIPs pay off based upon the Consumer Price Index (CPI), a Government-manufactured number that intentionally low-balls inflation. Revised in 1998, it includes both "hedonic" as well as "quality" substitutions. Since many Government transfer payments have a CPI-based cost of living adjustment (COLA), the Government has a vested interest in understating CPI.

Notwithstanding the above, TIPs could still be interesting at the right price, but presently five-year TIPs yield **negative** 1.75% while ten-year TIPs are posting a forever low of **negative** 1.02%.

A significant contributor to this rich price is the FEDs -ruddy line- purchases of TIPs at a rate greater than their -coquelicot line- net issuance.



But as they say, "Don't fight the FED". The "real yield" on TIPs is calculated by the Nominal yield of a Treasury security minus the CPI inflation to the same maturity. So, if the 10yr yields 1.5%, and CPI is expected to be 2.5%, the TIPs yield will be negative 1.0%. This "real yield" is what one earns after inflation.

If inflation (CPI) runs hot, let's say 4.5%, and the FED holds rates at 1.5% via YCC, a 10yr TIP will rally about 11% in price to yield negative 3.0%.
Of course, there is also the scenario where inflation runs above the FEDs target, and they allow long-term rates to rise, not Weimar-style, but moderately. The 10yr rate was nearly 200bp higher for most of 2018 and the sky did not fall.

To profit from this view, consider the **Simplify Interest Rate Hedge Strategy**

This strategy was detailed in *"Fire Insurance"* – June 8, 2021, so I will not repeat. Rather, below is a "modeled profile" updated to reflect the current rate and volatility structure. [And be reminded, this is a profile and not a prediction.]

	-50bp	Unchanged	+50bp	+100bp	+150bp	+200bp	+250bp	+300bp
20yr Swap Rate	1.35%	1.85%	2.35%	2.85%	3.35%	3.85%	4.35%	4.85%
Stretegy Value Today	$36.59	$42.00	$49.75	$60.11	$73.15	$88.64	$106.10	$124.84
1x listed Future Value	$39.40	$42.00	$44.42	$46.67	$48.76	$50.71	$52.52	$54.22
Px Difference	-$2.81	$0.00	$5.33	$13.44	$24.39	$37.93	$53.58	$70.62
Two year hence Strategy Value	$33.45	$38.23	$45.63	$56.21	$70.29	$87.82	$108.34	$131.01
3x Listed Future two years hence	$29.82	$37.63	$44.88	$51.63	$57.91	$63.76	$69.20	$74.28
Px Difference	$3.63	$0.60	$0.75	$4.58	$12.38	$24.06	$39.14	$56.73

Closing Comments

The preponderance of evidence suggests that inflation is not transitory, the rub is that **interest rates may no longer be correlated with inflation**.

I appreciate how this can be a short-term financial salve; but let's be clear, it is a long-term public policy blunder. What is indisputable is that Implied Volatility is way too low since the range of outcomes is now much wider.

Remember: For most investments, sizing is more important than entry level.

Harley S. Bassman
November 2, 2021

SIMPLIFY

Follow me on Twitter: **@ConvexityMaven**
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

Program Note: As noted in my title page, I have joined Simplify Asset Management [https://www.simplify.us/investment-philosophy]

I will not become a corporate shill, and I will continue to write independently; that said, Simplify has an investment philosophy that mirrors mine. Moreover, they presently offer a suite of ETFs with embedded options.

Careful readers will recall that I have hinted at finding a platform to offer my best ideas to the non-professional (civilians)…. **this is it.**

If you want to torture the GME shorts on Robinhood, have at it; but don't bother me. If you want to build a long-term investment portfolio that accelerates the gains and dampens the losses with a low fee structure, then ping Simplify.

I am placing my name on Simplify – That is a statement by itself.