

4th Quarter Commentary

January 2021

A Moment of Transition, From the Last 10 and 20 Years to the Next (*and New Asset Classes!*)

The Way Things Have Been vs. the Way They Will Be

Most people are unprepared for large-scale changes to the accepted order or way of doing things. The accepted way in the financial markets has been going on for a decade, if we're discussing indexation and market concentration; for a good two decades if discussing money creation; and three decades if we're talking interest rates. Even those of us who develop great competence within the established rules and routines might not know how to cope during the disruptive period after the rules change but before new lane markers are drawn. Even fewer are able to observe the early signs that prefigure an upheaval, so they can't even know to prepare.

For some time, we have described historical-scale stresses and the crossing of various limits that should frighten anyone who has savings, anyone who earns money and has living expenses. Unfortunately, the discussion has occurred while the asset prices that are symptomatic of these stresses continued rising. The satisfaction and the confirmation bias of rising prices dull the senses to assertions of danger, irrespective of their analytical vigor, if there are no observable price declines to confirm the warnings. Of course, by the time that price declines *can* be observed, it is too late to prepare.

"When prices are up...it is always said that while preceding booms have not lasted, there are circumstances...which make it unlike its predecessors and give assurance of permanency.

There is always a disposition in people's minds to think the existing conditions will be permanent. The fact pertaining to all conditions is that they will change."

(Excerpted, Charles Dow, 1900)

Likewise, the types of securities and assets that might protect or benefit in such an environment had been in decline or had yet to appreciate, so these proposals also lacked the credibility of price confirmation.

Very lately, though, prices of some of these alternative asset classes have begun to change in the observable way that so many of us require – in the confirmation of what *other* people pay. In this instance, we'll adjudge such price-checking to be welcome if it lends greater credence to the data, if it's in furtherance of taking appropriate action. Some of those changes and alternative assets will be described here – some of which we've not discussed before, both publicly traded and private – because major, long-

- Page 1: The Way Things Have Been, The Way They Will Be*
- Page 2: What's Not Going to Work: The Cash and Bond Asset Classes*
- Page 5: The CPI is 2%, Why is Excess Money Supply a Problem?*
- Page 8: Still, How Does Money Supply Link to Inflation? (The Inflation We Don't Understand)*
- Page 9: The Stock Market You're Celebrating*
- Page 15: The Inflation We Do Understand*
- Page 20: Outside the Hood: What You Can't Find in the Index*
- Page 21: Non-Debasable Money and Cryptocurrency Exchange Rates*
- Page 23: A New Asset Class: True (Asset-Light) Inflation Beneficiaries*
- Page 25: Another Uncorrelated (Temporary) Asset Class – In Japan*
- Page 26: An Improved ESG Index (With Benefits)*
- Page 28: What is NOT Research*

term shifts are underway, and people are unfamiliar with the possibilities that exist outside the major index-based choices. We've been identifying and allocating capital to a number of them.

Although I'm preceding myself – for this will be discussed later – I'll quote Michael Saylor, the CEO and primary shareholder of MicroStrategy, who recently said, *'Until people see the price change, they don't really believe it.'*

"For the times, they are a-changin'..."
(Bob Dylan, 1964)

For reference, MicroStrategy is an enterprise software company, and this past August and September, Mr. Saylor directed it to use \$425 million of its \$500 million of balance sheet cash to purchase bitcoin. That amounted to about 30% of the company's stock market value at the time. In December, just last month, the company bought another \$650 million of bitcoin, with cash raised through the sale of convertible notes. Curiously, it was precisely this past New Year's Eve that Morgan Stanley filed a report with the SEC that it increased its shareholdings in MicroStrategy from 2% to 11%, at which moment MicroStrategy's market cap was 2.6x higher than in September. Morgan Stanley and most other major brokerage firms do not yet permit their clients to purchase bitcoin or even a fund that holds bitcoin.

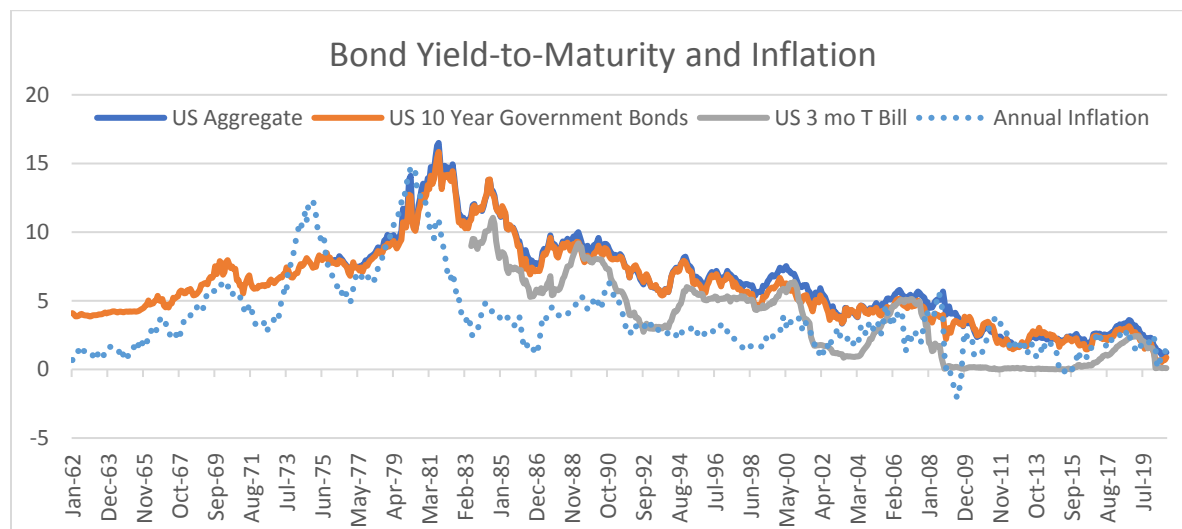
Again, I put the cart before the horse. We should first address, in brief, the essential nature of a couple of the systemic risks facing us all, and which induced Mr. Saylor to make what to most people must have seemed a bizarre and dangerous choice, yet to him was the height of conservative, well considered balance sheet management, even a necessity.

What's Not Going to Work – The Ties that Impoverish

The Cash and Bonds Asset Classes: FGLPs (Federally Guaranteed Loss Programs)

Cash and bonds are supposed to provide a 'guaranteed' return. And they do. It's just that they now guarantee a negative return. This loss is assured by the Federal Reserve achieving its official monetary policy goal (i.e., the FGLP).

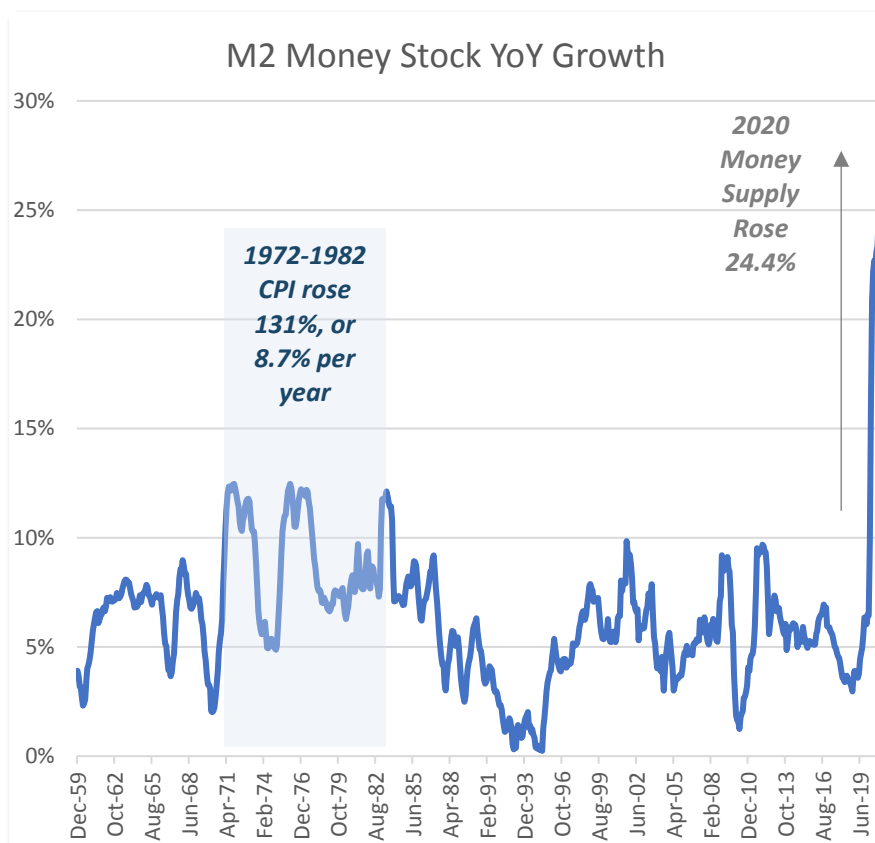
A 3-month Treasury Bill, as of January 11th, yields 0.08%, and a 10-year Treasury pays 1.13%. The Federal Reserve, meanwhile, has just stated that it intends to achieve inflation at or above 2% for an extended and indefinite period of time. That instructs you that your cash will decline in value or purchasing power by 2% each year, and that your 10-year Treasury Note will have a real return, through its maturity date, of just about negative 1% per year.



Source: Bloomberg

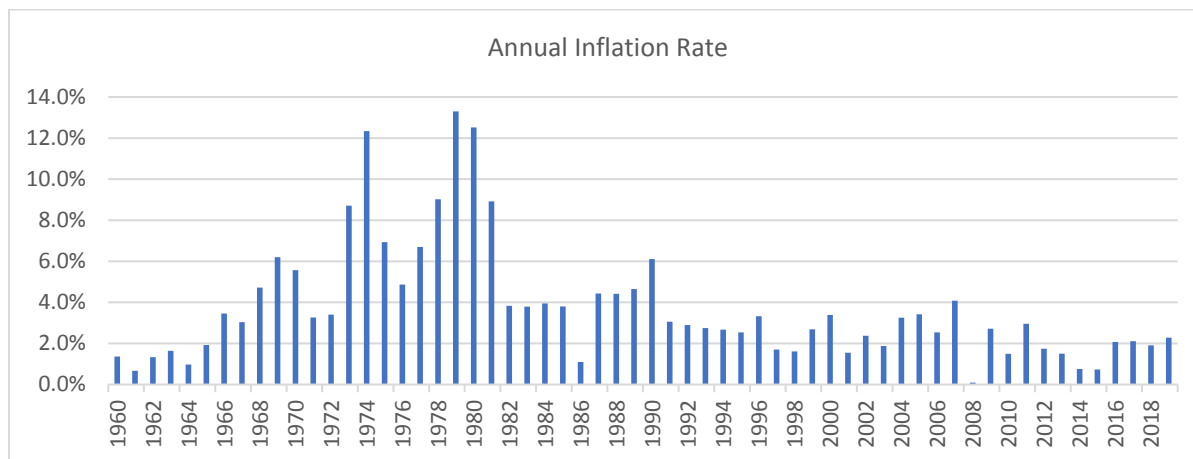
That's *if* the Federal Reserve achieves its goal. It might not. It could be worse. Inflation could be higher. In 2020, the supply of dollars in the U.S. increased by 24.4%. How high is that? It's a quarter more money than there was a year ago, even though the amount of goods and services in the economy didn't change much, nor did the amount of cash in a savings account if it was left alone. In that sense, that savings account cash has 20% less purchasing power for that same quantity of goods and services.

In the 60-plus years that such records have been kept, the largest previous one-year money supply increase was about 13.4%, achieved in 3 separate years during the 1972 – 1982 inflation decade. In those 10 years, the Consumer Price Index¹ increased by 2.3x.



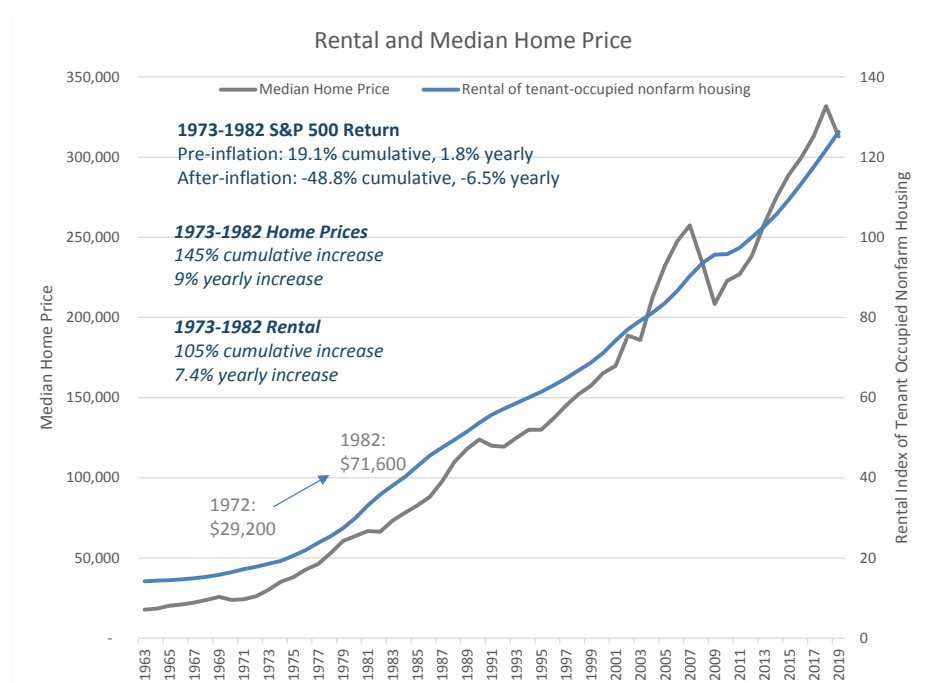
¹ <https://www.bls.gov/cpi/tables/supplemental-files/historical-cpi-u-202011.pdf>

Someone who had bought \$10,000 of 10-Year Treasuries would have needed over \$23,000 of Treasuries in order to buy the same amount of goods and services just one decade later. That's what inflation of 8.7% per year for 10 years looks like.



Source: St. Louis Fed Consumer Price Index: Total All Items for the U.S., Growth Rate Previous Period, Monthly

Inflation of the 8 or 9% level is devastating if an investment can't appreciate, or if the income level it provides was struck at pre-inflation rates and can't rise or can't rise at the same pace. There are large-scale transfers of wealth between different sectors of society; many winners and losers trade places.



Source: St. Louis Fed, Bloomberg, Factset

Median Sales Price of Houses Sold for the United States, Dollars, Quarterly, Not Seasonally Adjusted

It is well-known that in the first portion of 2020, extraordinary measures were required to keep the economy afloat, so it might be misleading to make over much of the 24% increase in money supply. Yet, in the 2nd half of 2020, the nation's money supply increased at a 9.2% annual rate. And even in the 4th quarter of 2020, the money supply also increased at a 9.2% annual rate. Other than the 1972 – 1982 inflation decade and its immediately surrounding years², there have only been 5 years in the past 61 years with a 9%-plus money supply increase.

These cards suggest say that inflation via excess money creation is coming our way. It doesn't mean it will, but there are credible reasons to believe it will. *Should one not have some portfolio stance that will protect against such an outcome?* The unquestioned problem, though, is that even without a rising inflation environment, the government's FGLP insures a negative return on cash and bonds.

Still, the CPI is 2%, so Why is Excess Money Supply a Problem?

Many people are curious about the CPI, though, since it has only risen at a 2.0% rate over the past 20 years, while the money supply has risen at a 7.0% rate. They conclude – those are certainly a lot of observation points – that there is no worrisome linkage between a rising money supply and inflation or the economy. Nevertheless, it is a historically exceptional divergence, and there are a variety of factors that explain it, and which we've discussed previously.

Rather than repeat them, let's look at a real economic linkage that *has* occurred during this period, between money supply and, as attorneys might say, our joint and several financial wellbeing. This linkage has approached a dangerous tipping point and is one of the change threats to the past decade or two of financial stability to which we've become accustomed.

In the past 20 years, GDP grew at a 4.21% annual rate, if we look at the period to January 2021, and 3.66% if through July 2020.³ Not so robust, considering that it was a period of perpetually declining interest rates and the longest economic and stock market recoveries in history.

During these 20 years, the Federal debt increased by 8.20% per year.

<i>On this day in</i>	<i>Debt per Tax Payer</i>	<i>Interest Exp. Per Citizen</i>	<i>Real Median Personal Income</i>
2000	\$ 55,750	\$ 8,053	\$ 32,032
2004	69,299	7,067	31,496
2008	89,984	13,585	31,559
2012	146,044	8,325	30,108
2016	167,250	7,386	33,132
2021	222,191	14,939	49,217*
<i>Annual change, 21 Yrs.:</i>	6.81%	3.00%	2.07%
<i>Notes:</i>	<i>The important figure, the real one.</i>	<i>Care of artificially low interest rates</i>	<i>Even after a record 2-decade expansion</i>

Source: National Debt Clock, St. Louis Fed

Real Median Personal Income in the U.S., 2019 CPI-U-RS Adj Dollars, Annual

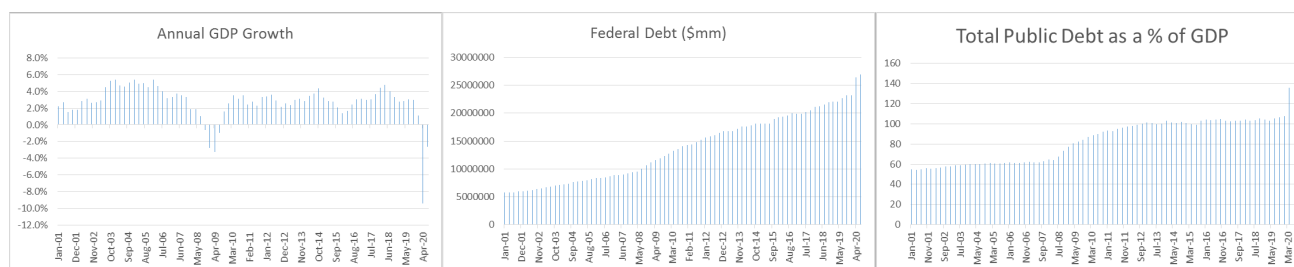
*Source: Bureau of Labor Statistics – est. from median usual weekly earnings in current dollars

² The year preceding and the three years following.

³ Figures through 1/11/21 from <https://usdebtclock.org>, and through 7/31/20 from <https://fred.stlouisfed.org/>

The amount of Federal debt per U.S. taxpayer has increased at a 6.81% annual rate, from \$55,796/taxpayer in 2000 to \$222,191 now. *Aren't those figures remarkably closer to the 7.01% annual increase in money creation than to the 2.0% CPI figures?*

The Federal debt was 60% of GDP 20 years ago; today it's 130%. That is the product of excess money creation and debt accumulation, to support excess spending, excess meaning above the growth rate of the economy. Ok, so there's more debt, but how does that impact the economy or GDP growth?



Source: St. Louis Fed.

Gross Domestic Product, Billions of Dollars, Quarterly, Seasonally Adjusted Annual Rate

Federal Debt: Total Public Debt, Millions of Dollars, Quarterly, Not Seasonally Adjusted

Federal Debt: Total Public Debt as Percent of Gross Domestic Product, Percent of GDP, Quarterly, Seasonally Adjusted

The GDP figure, as presented, is typically misunderstood to represent the nation's economic capacity or output. It does, but with a caveat. Like one's take-home compensation. What if you take home \$50,000 a year, but also have \$10,000 of credit card interest expense? You might say you have \$50,000 of spending capacity, but your mortgage lender would say \$40,000. They say that you don't really have \$50,000 to spend. And they're right.

That debt impinges on your ability to enjoy or improve your life. Say that you spend \$25,000 per year on mortgage, health insurance and car payments, which is not so far from the national average. That's only 50% of your take-home income. You might be thinking of allocating some of what's left to your savings account, or to roof repair to maintain the value of your home, or to building a patio to improve the value of your home, or to a professional degree program to improve your job market value. Except you really have only \$40,000 of income, because the credit card interest has to get paid. Those potential investments are going to be constrained by \$10,000 of prior obligations. They might not happen.

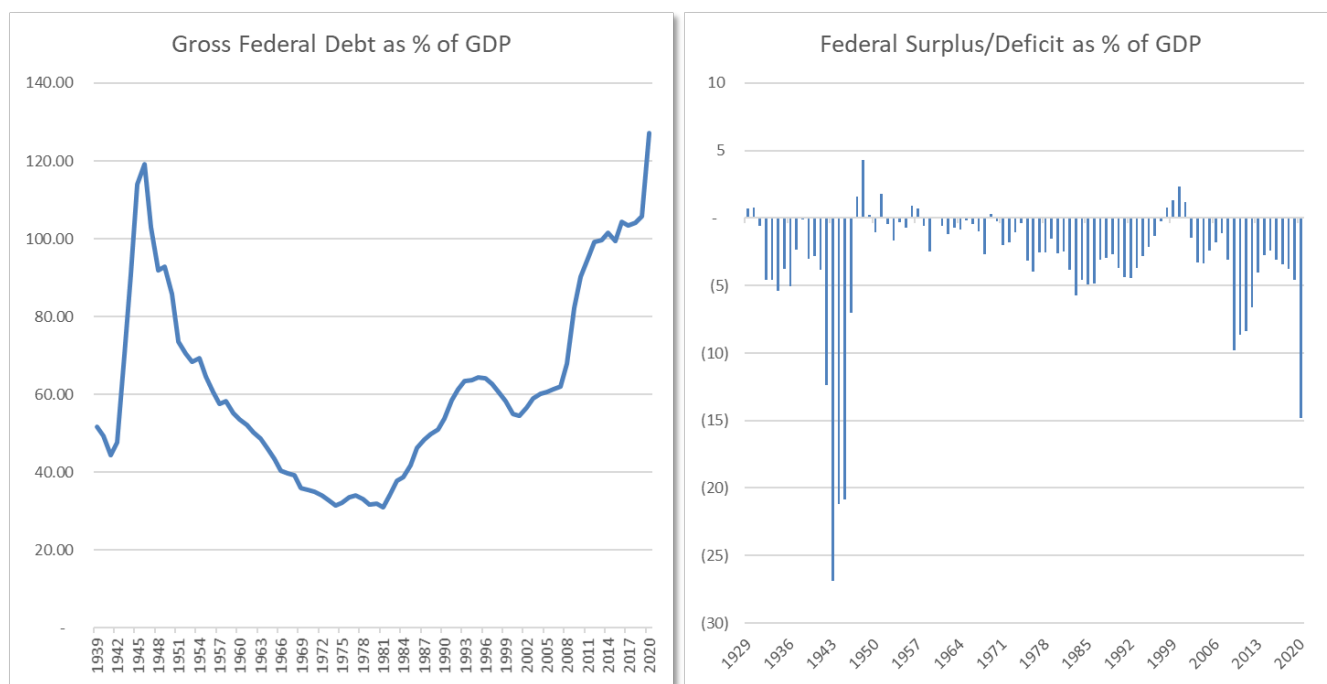
Moreover, debt leverage can have a disproportionate see-saw impact on finances. After the interest expense, your basic fixed expenses are not 50% of your available income, but 63%. Alternatively, the interest expense, at \$10,000, is not 20% of your take-home pay after your most basic fixed expenses, but 40%. And that doesn't count food or utilities, or medicine and medical co-pays, or gasoline and tolls.

Federal tax revenue is about \$3.453 trillion. Take away the mandatory expenditures on Medicare/Medicaid, Social Security, and Defense spending, and there's \$369 billion left before interest expense. If that sounds like a lot, the Federal interest expense, at \$392 billion is actually a touch more than that, so there's nothing left for anything else at all. But there's plenty of additional expense, including other

4th Quarter 2020

January 2021

mandatory spending programs. The additional unfunded expense is the federal budget deficit, which is now \$4.422 trillion. That's a historical record in more ways than one.



Source: St. Louis Fed, Percent of GDP, Annual, Not Seasonally Adjusted

But the situation is likely to get worse. That deficit means the government has to borrow \$4.422 trillion more, which will be a 15.9% increase in the total Federal debt. The current Federal debt figure of \$27.781 trillion is now, as shown earlier, 30% larger than GDP, which is a historical first.

It doesn't stop there, though, because in order to borrow the \$4.4 trillion deficit, the government has to create that much more money. One sees the frightening prospect: that the size of the debt and its rate of increase are now beyond the ability of the economy to outgrow, since we know that GDP expanded, even during these beneficent last 20 year, at only a 4% rate. And with more debt, additional interest expense.

If the economy cannot expand sufficiently to allow the debt/GDP ratio to gradually subside to a sustainable level, the government's only politically realistic option – a timeworn solution – is to actually continue printing more money. By expanding the money supply sufficiently over enough years or decades, the government arranges that there will be more dollars in everyone's pockets (each one worth less, but more of them). The borrowers within society are thereby enabled to gradually pay off their fixed obligations – meaning the bonds or bond ETFs that you as an investor might hold – in the ever more plentiful dollars, while the holders of those obligations are stuck with the same value as last year or 10 years ago.

It's devastating to savers and investors and people on fixed or quasi-fixed incomes, but governments historically prefer to impose the devastation slowly over time rather than suddenly and openly by, say, cutting services and social support programs.

Still, How Does Money Supply Link to Inflation? (*The Inflation We Don't Understand*⁴)

This is the cycle we might have tipped into. Still, we've been asked, how specifically, does money growth cause inflation?

Inflation is a dangerously misunderstood term. For Americans it tends to conjure memories of grocery prices rising by the month in the 1970s. That's a natural reference to a prior pattern – one that feels like a cost-push pattern, as when the price of a commodity like oil or wheat suddenly rises. It would not be the reference point for someone who spent a lifetime in Italy or Greece or Venezuela or scores of other countries. Through repeated experience they understand that their money's purchasing power can be destroyed by its dilution or debasement – and that this is measured relative to other countries' currencies. They know that if they have 1,000 Bolivars in the bank and that the government is printing up 100% more money this year, then their 1,000-Bolivar share of the total money in that country is going to shrink by 50%, that their money will lose 50% of its purchasing power. That they'll need twice as much to buy the same liter of milk.

Importantly, they understand that the milk itself didn't go up in price, but that their money went down in value. It's why they know that to save their purchasing power, they have to exchange some of their debasing currency, whenever they have extra in hand, for a stronger one, like the U.S. dollar. A year later, their dollars might be worth twice as much if measured in their local currency.

As Americans, we have no domestic frame of reference for that. Having lived with the reserve currency of the world, most of us have not had to contemplate the exchange value of the dollar in our day to day lives. We think that inflation means that the price of milk went up – that somehow, the process of raising and feeding and milking a cow became more effortful or consumed more resources than before and therefore must 'cost' more – when, really, it was that the value of the dollar declined because there were too many more of them. The dairy farmer's problem is that it requires more dollars in order to buy the same amount of hay.

If the money supply increases 6% or 8% or 10% more rapidly than the goods and services we produce, then the share of the total pie of money supply that is represented by your Treasuries or bond ETF will be diminished by that rate. In 10 years, its value would halve, in 15 or 20 years, well... That's inflation via monetary debasement.

So, cash and bonds are now a dangerous place to be for the long term. If this made sense to you, then Michael Saylor's desire to protect the value of the cash on MicroStrategy's balance sheet should be more understandable – whether his allocation choice, bitcoin, sits well with you or not.

⁴ The form of inflation we do understand is highlighted on Page 15.

Under the Hood: The Stock Market You're Celebrating; What's in It, What's Not

Investors have been quite pleased if they've owned any growth stock indexes these past 10 years. Even mainstream indexes like the S&P 500 are so concentrated in the mega-cap growth companies that they have become growth-stock index proxies. The satisfaction is fortified by the fact that those companies whose share prices have outperformed all others have been the largest and are high-quality businesses. It is natural, when investing is done via baskets of stocks, that perceptions of performance or risk center more on the basket overall than on the individual stocks within it.

But since people have gotten so accustomed to looking at the summary index-level figures, not at the companies themselves, we thought we'd provide a closer look, so you more fully appreciate what you own, if you own 'the market.'

Here are 10 stocks at the top of the S&P 500. They are a generous mix of the more successful. They rank from #1 to #58. This last, Starbucks, is an outlier in that it has only a \$120 billion stock market value. All the rest, even #40, Nike, have market caps of \$200 billion or more, while Apple and Google are 10x larger than that.

With such massive numbers, how to judge how big \$200 billion is? Well, the \$200 billion market cap border in the S&P 500 is roughly around ranking #30, although there are variations when some companies have high levels of inside ownership, since the index is float-adjusted. In order, Pfizer (PFE), Salesforce.com (CRM) and AbbVie (ABBV) have market caps⁵ of \$204 billion, \$196 billion and \$195 billion. They are ranked #28, 30 and 31. The remaining 470 or so companies, 94% of the total, are smaller than that.

S&P 500 Rank	Market Cap. (\$ bill)	Company
1	2,139	Apple
2	1,608	Microsoft
6	2,342	Google
16	297	Home Depot
17	322	MasterCard
23	220	Adobe
24	220	Netflix
30	196	Salesforce.com
40	222	Nike
58	120	Starbucks

How much smaller? What's a characteristic size? The company at the mid-point of the index weightings, #250, has a \$25 billion market cap. That's Delta Airlines. U.S. airlines directly employ about 0.5% of the nation's workforce. The S&P 500 companies employ roughly 27 million workers, but many of these work in other countries, not the U.S., so their U.S. workforce is smaller. Even taking all 27 million, that's about 20% of the U.S. workforce, in which case the airline companies, very roughly, account for about 2.5% of all the employees of all the S&P 500 companies. Interestingly, U.S. airlines also account for about just about the same proportion, 2.6%, of all the revenues of the S&P 500 companies. In economic terms, then, the airline industry is a significant portion of the gigantic U.S. economy and, again in economic terms, about 2.5% of the S&P 500.

This can be a very useful exposure in an index risk/return context. Though I don't have much interest in how the stocks in this industry will do, it's quite plausible that airlines will be one of the sectors of the economy that will begin to recover later this year, which would benefit the index. It's just as plausible that, at the same time, some social media stocks might suffer due to political efforts toward increased regulation, which would harm the index. That scenario doesn't have to happen, but it very well could; would it really

⁵ As of Jan 15th.

shock anyone? One of indexation's central ideas is resilience and risk reduction through the idea that the index captures different industries that exhibit different price behaviors or correlations. Consider that Delta is up 60% from its mid-year low, and it would rise another 50% if it simply returns to its mid-2019 price before the Covid-19 pandemic began.

Unfortunately, Delta's weight in the S&P 500 is only 0.08%. Even extreme appreciation would amount to a rounding error, at best. In pragmatic terms, Delta does not even exist in the S&P 500. Total all of the airline companies in the S&P 500, and that's only 0.26%. As far as index exposure, that is about one-tenth of the airline industry's economic presence in the U.S.

One half of the S&P 500 companies are at or lower than Delta's 0.08% weight. They are what, in practical terms, the index is *not* providing exposure to. Over one-third of the companies in the S&P 500 have a weight of 0.05% or less. If that's what you *don't* have exposure to, what *does* one have exposure to in the S&P 500?

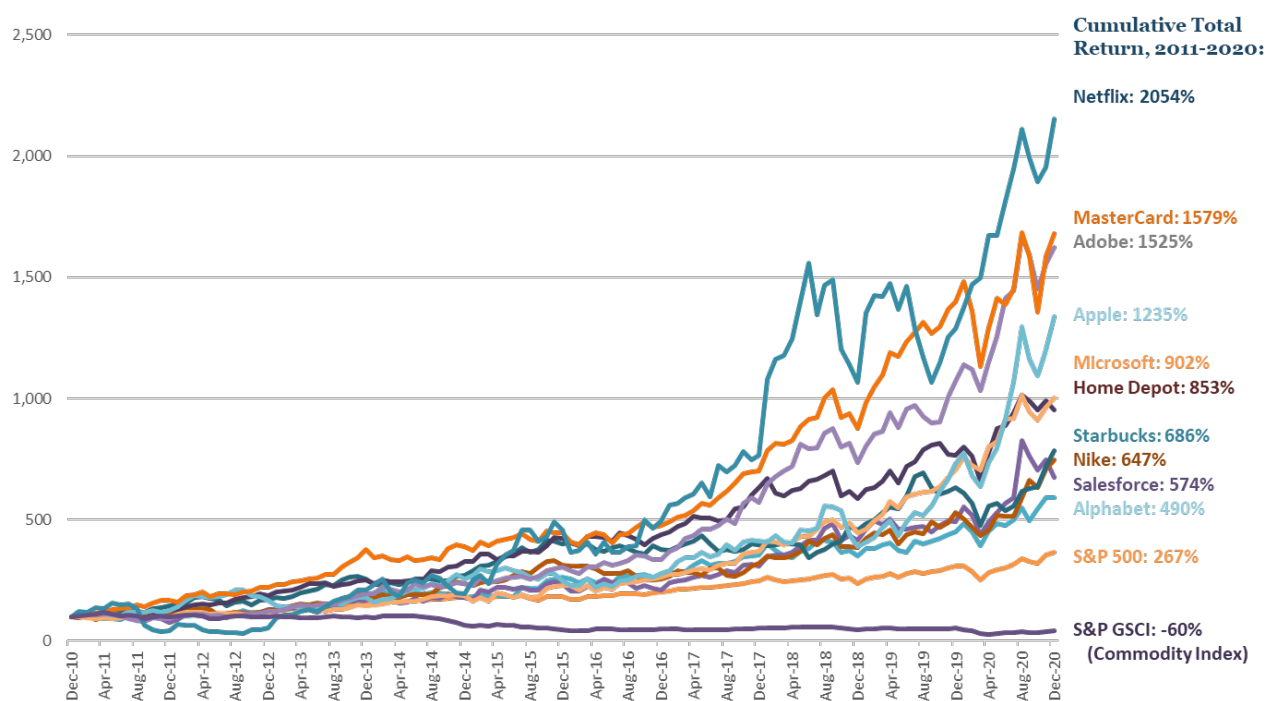
	Market Cap. (\$ bill)	MV % S&P 500
250 th		
Company – Delta Airlines	25	0.08%
Aggregate bottom 250		11.73%
Aggregate AAPL + MSFT		11.44%

The aggregate weight of all the companies from the midpoint ranking of #250, Delta Airlines, down to the smallest, is 11.73%. The aggregate weight of the #1 and #2 ranked companies, Apple and Microsoft, is 11.44%. In the index construction sense, these two companies purport to have the same exposure to and representation in the economy as one-half of the 500 companies in the index. They implicitly purport to provide the same exposure to changes in economic growth, accounting and tax regulations, interest and currency exchange rates, competitive and technological developments, employment costs, raw materials and energy and electricity costs, international trade relations, anti-trust regulations, what have you.

In any event, they have been very successful stock investments, as can be seen in this chart. The chart is a bit busy, but the S&P 500 is easily distinguishable: it's the 2nd bottom-most line that looks as if it's hardly risen. That's only comparatively, of course, because on a price basis, the index has returned 13.9% per year, and that's with the benefit of the growth companies at the top. In the past 10 years, these 10 companies at the top of the S&P 500 have appreciated by anywhere from 5x more than the entire index to 20x more. As a group, using a simple average, they have outperformed the index by almost 4x.

4th Quarter 2020

January 2021



Source: Bloomberg

Excluding the largest 25 companies, 5% of the names, the S&P's rate of return would have been 10.3%, not 13.9%. Excluding the largest 50, 10% of the names, the return was 8.4%.

iShares Core S&P 500 ETF
1/01/2011 to 12/31/2020

	Annualized Return
Total	13.9%
Excluding the 25 Highest*	10.3%
Excluding the 50 Highest*	8.4%

*Return calculated by avg. weight

Source: Factset

It is naturally presumed that the appreciation of the growth stocks simply reflects their robust growth, whether in sales or earnings. As a group, these 10 companies appreciated at an annualized rate of 26.7%. We should see something similar in their financial results.

4th Quarter 2020

January 2021

Revenues of these companies grew at a 14.4% rate. That's quite superior to the average company, but it is only about half what their share price appreciation was.

It's possible that their earnings expanded much faster than the revenues, through the benefit of scale-economies. This could be confirmed by looking at their operating margins.

The average operating margin for these 10 companies – the amount of operating profit they generate per dollar of sales – actually contracted at an annual rate of -1.6%. Lest one think that this result was overly influenced by a retailer like Nike, whose operating margin did contract by a total of 3.8% points over the 10 years, Home Depot's margin expanded by 5.8%. Among the information technology companies, Apple's margin contracted by 4.0% points, Google's margin contracted by 15.1%, and Microsoft's by 1.4%.

Company	Change in Operating Margin, 10 Yrs to 2020
Apple	-4.0%
Microsoft	-1.4%
Google	-15.1%
Home Depot	5.8%
MasterCard	4.3%
Adobe	6.8%
Netflix	5.2%
Salesforce.com	-6.8%
Nike	-3.8%
Starbucks	-6.6%

With the lower average profitability, operating income rose by only 11.5% per year, under one-half the rate of share price appreciation. The profitability of their assets declined as well. The average return on assets of this sample contracted by 2.30%, annualized, albeit with plenty of variation between firms.

Company	Change in ROA, 10 Yrs to 2020
Apple	-6.3%
Microsoft	-7.2%
Google	-4.6%
Home Depot	13.7%
MasterCard	0.7%
Adobe	13.3%
Netflix	-11.8%
Salesforce.com	-3.0%
Nike	-5.4%
Starbucks	-12.0%

Source: Bloomberg

4th Quarter 2020
January 2021

Then, as far as sales growth over the past 10 years, 6 of the 10 companies in this list have obviously slower growth in the past five years than the first five.

Some might ask for the benefit of the doubt to exclude last year, since 2020 was so anomalous. But, 2020 didn't stop their stocks from rising.

One might think that companies with contracting operating margins and return on assets would suffer from a reduction in their valuation multiples; investors might question whether negative competitive or other forces are impacting those businesses.

**Avg. Year/Year Sales Growth
for the 5-Year Periods:**

Company	12/10– 12/15	12/15 – 12/20
Apple	25.2%	3.2%
Microsoft	6.2%	10.3%
Google	20.7%	18.0%
Home Depot	5.2%	7.7%
MasterCard	11.8%	10.0%
Adobe	4.8%	21.8%
Netflix	25.7%	29.8%
Salesforce.com	32.3%	26.3%
Nike	9.6%	4.1%
Starbucks	13.0%	3.6%

Source: Bloomberg

**S&P 500 Growth Leaders,
10-Co. Sample, 10 Years to 2020**

Changes in:	Total	Annualized
Revenue	4.8x	14.4%
Operating margin		(1.6)%
Return on assets		(2.3)%
Operating income	4.0x	11.5%
Price/Sales Ratio	2.6x	9.0%
P/E Ratio	2.6x	9.2%
Share price	10.7x	25.5%

The Price/Sales ratio expanded by 9.0% per year. The P/E ratio rose by 9.2% per year. That's the other half that's missing. Multiply these out over the course of 10 years and, basically, people paid 3.1x more for every dollar of sales and every dollar of net income that these companies produced. Without that, their share prices would have tracked their net income growth, roughly a 13% rate.

What's this all about, then? It's one way of trying to show how lopsided, concentrated and extremely expensive the stock market has become – just a look under the hood.

Now for the Equity Asset Class: Balancing Growth and Valuation

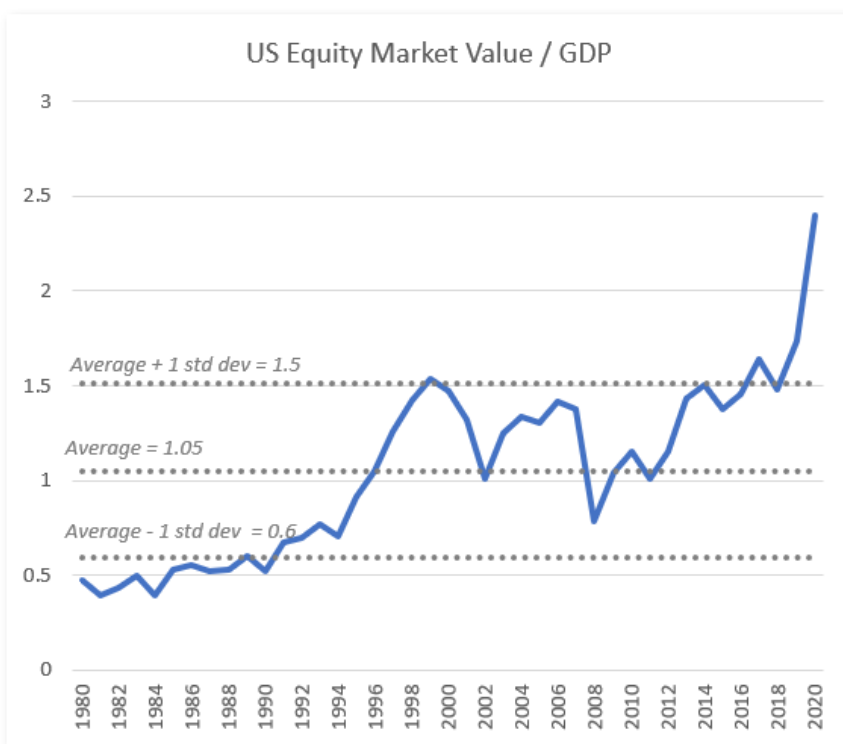
Yet, there are a great many more analysts and investment strategists who would firmly assert that the above observations, as colorful as they might be, do nothing to refute the thesis that their rapid growth will ultimately fully justify the leading companies' valuations. I know this, because there are people who share research with me from other firms, research that heartily recommends such stocks, ranging from MasterCard to Peloton, the interactive exercise equipment company. Peloton stock is up about 5x in the past year; it has twice the market cap of Delta Airlines.

Perhaps the simplest way to respond to the power-of-growth argument in respect of this type of pricing is with what might be the least disputable measure of equity valuations: the total market value of the U.S. stock market relative to GDP. There cannot be a more complete measure; it requires no expert intermediary to make calculations or introduce assumptions. Anyone can calculate it. The relationship between the two figures is clear, and they are economically tethered to one another: investors price

companies in some relation to the sales and earnings they produce or are expected to produce; those sales and earnings are produced within, contribute to and are representative of the totality of the economy.

In 2010, the U.S. stock market cap/GDP ratio was 1.15, that is 15% greater than GDP. The 48-year average through 2019 was 1.05, and generally ranged between 0.6 and 1.5. The prior highest level achieved during those 40 years for which records are readily available was at year-end 1999, the end of the Internet Bubble, when the figure was 1.83.

Following the collapse from that bubble-level valuation, it took 7 ½ years, until mid-2007, for the S&P 500, on a price basis, to return to the December 1999 level. Only several months later, though, by early 2008, it collapsed again and didn't achieve the Dec 1999 price again until Feb 2013 – it took 14 years.



Source:

US Equity Market Value – 1980-1997 from the World Bank, S&P 500 Research thereafter, BEA
GDP: US Bureau of Economic Analysis

Where are we now? At year-end 2020, the stock market was valued at 2.37x the GDP of 2019. GDP for 2020 has not yet been reported, but because it is a recession year, the ratio for 2020 will be above 2.4x. Call it a third higher than the market valuation at the Internet Bubble peak.

To return to the average ratio of stock market value to GDP of 1.05 would require a contraction of 56% in that ratio. If GDP growth for the next 10 years were to match the 4.02% annual rate of the past 10 years, then GDP will have increased by 1.48x and, all else equal, the stock market cap/GDP ratio will have contracted from 2.4x to 1.6x. It would still be overvalued, relative to the 40-year average, by 53%. And that's assuming that the stock market does not appreciate at all during those 10 years.

If the economy expands at 4% for 20 years, and the stock market produces zero appreciation, then the ratio will contract to 0.85x, which is within the average range of its long-term valuation. If this seems an outrageous proposition, 20 years is not much more than the 14 years of zero point-to-point appreciation of the S&P 500 after the Internet Bubble peak, and this market is one-third more expensive than that one

was. There are other valuation gauges, of course, and robust debate can be had about their relative advantages and efficacies, but this is about the simplest and most comprehensive.

So, that's what you own, more or less, in the S&P 500, and that's a good idea of the prospects for conventional indexed equities. What you *don't* own is just as important, and that's next.

What's Left, Then?

The aim, to this point, was to demonstrate that even before any potential upsurge in inflation – for who really knows what will happen? – two of the three major asset classes, cash and bonds, already guarantee a loss. They cannot be a suitable long-term core holding.

The third major asset class, conventional indexed equities, poses the greatest valuation risk in 48 years and the possibility of one or two decades of near-nil nominal return. After inflation, possibly negative. Must that be in the cards? No. But if the goal is to construct a portfolio with an equal eye toward both the expected return and the risk of not earning it, then the risk of not having exposure to investments outside these three conventional indexed asset classes must weigh very heavily.

The Inflation We Know and Understand

The type of inflation people are more familiar with – rising commodity prices – is another threat that should be factored into portfolio construction. Global reserves of key commodities have been declining for years. The inevitable conclusion is that there will be a distinct supply deficit at some point, one that is not quickly correctable, with markedly higher prices and a strong inflationary impact. One should take advantage of the good fortune of being able to measure and anticipate the eventuality by including such exposure in a portfolio.

Lately, there have been some changes in the years' long depression in commodity prices. As far as oil goes, the first accompanying table shows the year-over-year changes in total consumption of crude oil in the U.S. this past year. It's measured, month by month, beginning last January. The first two months of the year, which preceded the pandemic, were approximately equal to the prior year. By April, crude oil use had plummeted by almost 28%, a simply unheard-of and shocking collapse in demand. That is what we remember. What is not so publicly noticed is that almost every month since then has seen an improvement in demand, from down 21% to down 16%, down 12%, and as of October down 10% versus the prior year.

	Use of Crude Oil (vs 2019)	Use of Gasoline (vs 2019)	Distillate Fuel Oil (vs 2019)	US Stocks: Crude Oil, Petroleum Prods. (MoM Change)
Oct-20	-10.1%	-11.3%	-4.8%	-1.9%
Sep-20	-9.6%	-7.1%	-2.6%	-0.9%
Aug-20	-12.8%	-13.5%	-9.1%	-1.1%
Jul-20	-11.6%	-11.3%	-7.7%	-0.1%
Jun-20	-15.6%	-14.6%	-12.6%	1.7%
May-20	-21.0%	-24.3%	-14.0%	1.9%
Apr-20	-27.7%	-37.8%	-14.9%	4.1%
Mar-20	-9.4%	-15.3%	-6.5%	2.2%
Feb-20	1.3%	2.4%	-3.6%	-1.0%
Jan-20	-3.4%	-0.2%	-7.6%	0.9%

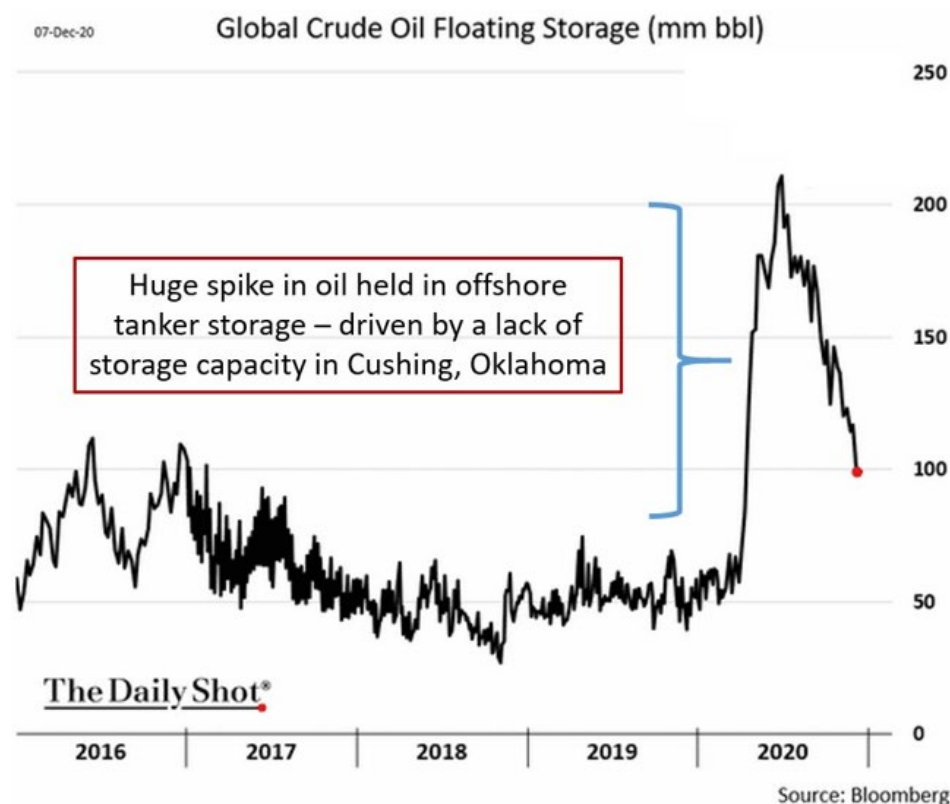
Source: EIA.gov

Gasoline use was down even more, reflecting the impact of the pandemic on discretionary travel. Gasoline use plummeted by 38%, but by October was down only 11%.

A component of crude oil that is less discretionary than gasoline is distillate fuel oil, which is primarily used for diesel trucks, but also for farm equipment, trains and home heating. Demand for this fuel dropped by 15% as of April, but by October was down only 5%.

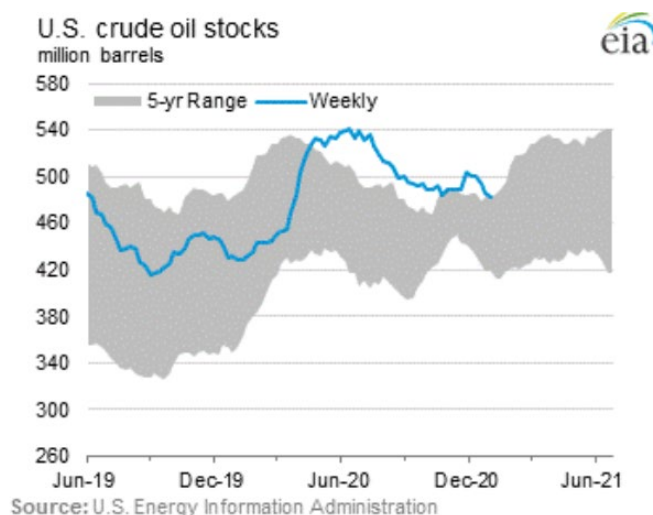
Then there is the matter of oil inventories, which built up to extreme excess in early 2020. Until those are drawn down to normal working levels, there remains excess usable supply. Since June, though, U.S. inventories have been gradually subsiding, every month.

On a global basis, oversupply in April was so extreme that the excess had to be held in offshore tanker ships. The accompanying chart shows floating storage spiking from 50 million barrels to over 200 million, then receding to 100 million by the beginning of December. It is now estimated to be below 80 million.



Even during the midst of the global pandemic and recession, even before a recovery in normal travel activity, oil and gas demand is recovering and excess supply is being drawn down. This can be seen in the accompanying chart that tracks the weekly volume of U.S. crude oil stocks against the 5-year average. The excess beginning last April is clear, just as it's clear that the levels are now at the border of the historically average range.

There is little doubt that once demand and supply do come into balance, whenever that might be, there will be a supply deficit once demand thereafter increases further.



There is a great debate, today, about fossil fuel use in the coming 10 and 20 years. In the 3rd Quarter Review, which was almost exclusively about the future of energy, it was pointed out that the different long-term global energy consumption models by various world government agencies and privately funded cohorts all projected continued use of oil and natural gas, despite allowance for rapid expansion of solar and wind power. The primary confounding factor in these outcomes was the rising standard of living in the most populous developing nations. Here's why.

A rising standard of living is tied to the key commodity in every nation, which is oil. Per-capita energy consumption is one of the defining differences between developed and developing nations. It is one of the most intractable elements of the global energy demand equation. In the last 5 years, oil consumption in the U.S. increased by a cumulative 7%. India's consumption rose by 35%, and China's by 26%.

Change in Oil Consumption 5 years, 2014-2019

Region	Cumulative	Annualized
U.S.	7.0%	1.4%
European Union	4.9%	1.0%
India	34.9%	6.2%
China	26.2%	4.8%

My colleague Murray Stahl recently made this point more starkly:

- In 2019, Japan used about 3.8 million barrels of oil per day. It has a population of 127 million.
- India used a bit more, 5.3 million barrels/day. Its population of 1.366 billion people, is 11x larger.
- On a per-capita basis, Japan uses 1.26 gallons of oil per person per day. This is 8x more than the 0.16 gallons/day that the Indian population uses.
- If Indians were to have the standard of living of Japan, they would consume 7.8x more oil per day per person, or another 36 million barrels of oil per day.
- In 2019, the world consumed just under 100 million barrels/day, so India alone, on a standard-of-living parity basis with Japan, would increase world demand by 36%. That's 36%.
- Then there's China. Add in China, and parity with the U.S. would, along with Indian demand, more than double the current world oil consumption.

Parity Illustration of Oil Consumption Japan vs. India and US vs. China

Region	Population (mill.)	% of Global Population	% of Global Oil Consumption	Mill. bbl/day	Per-Capita Gallons/day	Increase bbl/day for Parity
Japan	127	1.6%	3.9%	3.8	1.26	35.7
India	1,366	17.7%	5.4%	5.3	0.16	(+36%)
USA	329	4.3%	19.7%	19.4	2.48	70.5
China	1,434	18.6%	14.3%	14.1	0.41	(+70%)
Worldwide Oil Consumption				=98.3		+106.2

Source: BP Statistical Review of World Energy, Horizon Kinetics Research

Oil has had a special year. The Covid-19 pandemic and global recession is not over, yet demand is recovering despite the historically severe global recession and patchwork of enforced activity restrictions. The price has already recovered to its pre-pandemic level. A price that had induced years of underinvestment and reserve depletion by the oil companies, a price that is setting the stage for supply shortages that cannot yet be seen.

Oil Price (WTI), 10 Years



Source: <https://www.macrotrends.net>

Oil is a special case, yet other hard commodities can now be seen to be rising as well. Gold is rising, but that might be explainable as reflecting renewed investor interest in inflation hedges.

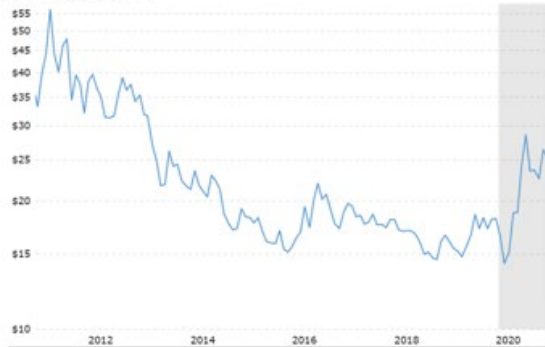
Gold Price, 10 Years



Source: <https://www.macrotrends.net>

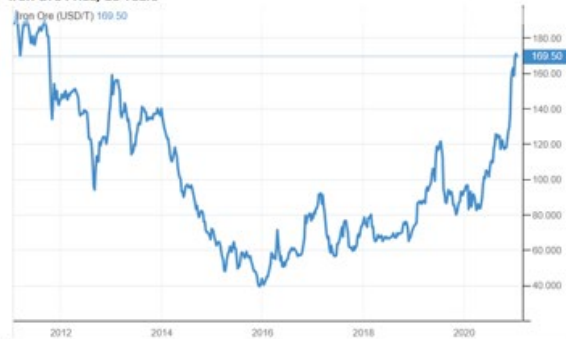
But silver and iron are and copper are industrial commodities, and their price behavior is the same.

Silver Price, 10 Years



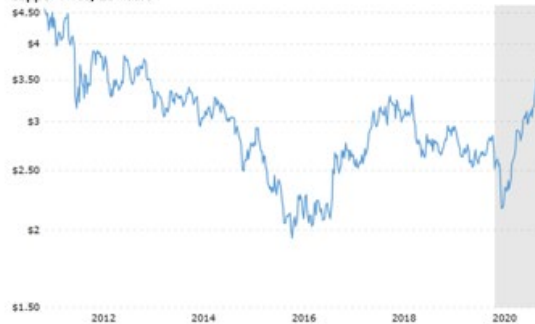
Source: <https://www.macrotrends.net>

Iron Ore Price, 10 Years



Source: <https://tradingeconomics.com/commodity/iron-ore>

Copper Price, 10 Years



Source: <https://www.macrotrends.net>

It's not just metals. In the past 12 months, despite the global recession, most basic commodities other than energy, are up, and by much more than the 2% CPI target of the Federal Reserve.

Commodity	12-Month Change to Dec 2020	Index Components
Agricultural Raw Materials	9.3%	Timber, cotton, wool, rubber, hides
Commodity Food Price Index	13.8%	Cereal, vegetable oils, meat, seafood, sugar, bananas, oranges
Commodity Metals Price Index	18.5%	Copper, Aluminum, Iron Ore, Tin, Nickel, Zinc, Lead, Uranium
Soybeans	33.2%	
Palm Oil	33.9%	
Sunflower oil	14.7%	
DAP fertilizer	45.0%	
Rock phosphate fertilizer	11.5%	

Source: <https://www.indexmundi.com>, from Int'l Monetary Fund

Outside the Hood – What You Can't Find in the Index

I'd like to regroup for a moment. Setting aside the overload of the preceding statistics, there really were only a few points.

- First, that the conventional asset classes, particularly via the indexed instruments used to access them, are either already wasting assets – cash and bonds – or are in great danger of becoming so – stocks. Cash and bonds are extraordinarily overvalued, at near-zero yields that are exceeded by the current inflation rate; stocks, by some measures, are overvalued beyond historical precedent.
- Second, that's at the current published inflation rate of 2%. The possibility of a true inflationary period, whether through the vector of excess money creation or structural commodity shortages, or both is, at the least, a credible possibility. Whether the probability is considered low or high, it can hardly be thought so low as to be an ignorable risk.
- If points one and two are considered valid, any portfolio comprised of those assets should seek to incorporate, as a protective measure, some other asset classes or modes of investing that don't share the same systemic risks: that might benefit from, or at least not be damaged by, an inflationary environment; that might correlate to different variables in the economy and manifest different return patterns.

Now, then, some discussion or mention of some alternative instruments and methods.

A Non-Correlated Asset Class, Non-Debasable Money: Fixed-Issuance Cryptocurrency and Exchange Rates

Since this review is aimed toward the prices of things and the confirmation of other people, it is fitting that we start with cryptocurrency because, in one sense, all one needs to know about money throughout history is that it is what other people confirm it to be. If people accept something to be money, it is. Contrarily, irrespective of government dictates, if they don't trust a coin or currency, it stops being used.

Probably the single greatest risk to bitcoin's success is lack of acceptance. An exceedingly small percentage of the world's population and an exceedingly small percentage of financial institutions and private sector retail companies have yet accepted or transacted in bitcoin. The converse statement is that all that is required for bitcoin's success is a continuation the incremental acceptance that has been ongoing. If the following sampling of recent announcements is representative, institutional acceptance appears to now be happening on a weekly basis.

- For the year 2020, Grayscale Bitcoin Trust (GBTC), the only U.S. traded bitcoin fund, had cash inflows of \$4.7 billion. This would have ranked in the top 1%, of all U.S. ETFs, according to Bloomberg. During the final 3 months, institutional investors accounted for 93% of the inflows.
- This past October (reprising the same mention in the 3rd quarter commentary), PayPal announced the launch of a service allowing clients to buy, hold, and sell cryptocurrency in their PayPal account. This year, it will allow customers to use their cryptocurrency holdings to make purchases.
- In December, Vias Inc. announced a new credit card that rewards purchases with bitcoin rather than airline miles or cash. This follows Visa's debit card offering earlier in 2020 that allows users to spend bitcoin using the card.
- In December, CME bitcoin futures volume hit new highs, with almost \$30 billion notional in bitcoin futures traded.
- Also in December, MassMutual, the 170-year old life insurance and investment services company, purchased \$100 million of bitcoin for its general investment account.
- On January 4th, the Office of the Comptroller of the Currency issued a statement allowing national banks and federal savings associations to use blockchains and stablecoins for payment and settlement activities.
- Also this month, Intercontinental Exchange (ICE), one of the two largest U.S. securities exchanges, announced that it would bring its digital assets/cryptocurrency subsidiary public. It is expected to have a \$2.1 billion market value. This division, known as Bakkt, began trading physical bitcoin futures and options in 2019.

These institutional activities appear to be having an impact on the price of bitcoin. But I don't wish to say that the *price* of bitcoin rose, or even refer to a bitcoin price. That is a mistake in understanding. I should say 'the exchange rate' of bitcoin.

4th Quarter 2020

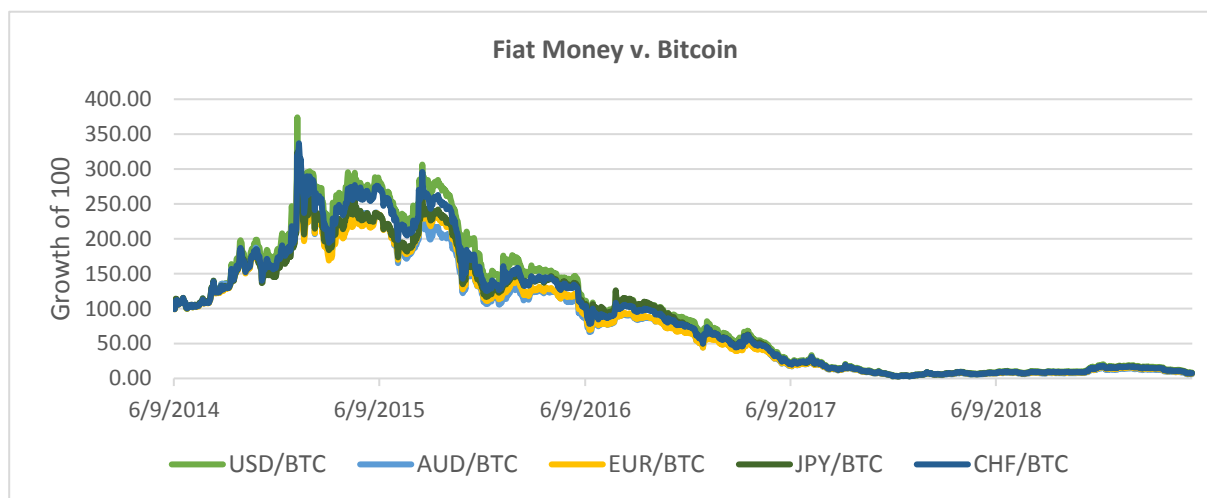
January 2021

That dovetails precisely with the earlier example about debasement-based inflation and the cost of milk: that the cost of producing milk did not rise, as the cow did not eat more, nor the farmer hire more workers, but that the value of the money decreased. You would never think to say that your \$10 bill increased in price. It's always \$10. Its value changes only in relation to how much of something else it might be exchanged for: it might come to be exchanged for more or fewer Euros than it used to, but it is still \$10.

Likewise, one bitcoin is still one bitcoin. The first chart below seems to show that it skyrocketed from \$10,000 in recent months to \$35,000. But it's still one bitcoin, just as \$10 is still \$10. It's just that it is now exchangeable for more dollars, because more dollars are flowing into it than are flowing from bitcoin to dollars. The proper way, then, to look at the bitcoin price is that the dollar and other currencies have depreciated versus bitcoin. The bitcoin chart should be inverted and shown in relation not just to dollars but to other countries' currencies as well. The chart then becomes a picture not of bitcoin rising but of fiat currencies' exchange rates collapsing against bitcoin.



Source: worldcoinindex.com



Source: Bloomberg, www.coingecko.com. Chart: The amount of bitcoin that 100 units of major currencies can buy

Why the difference in day-to-day volatility between bitcoin and the fiat currencies? There are tens of trillions of dollars of fiat currency in the world, and \$650 billion of bitcoin, an ocean and a pond. Until the two volumes are more equal, small trickles from the ocean of fiat currencies, small enough as to be statistically insignificant, are very large flows in relation to bitcoin, creating waves in the bitcoin pond if I press on with the metaphor.

New Asset Class: True (Asset-Light) Inflation Beneficiaries

A very important piece is missing from the available selection of asset allocation building blocks: an organized, accessible way to get exposure to publicly traded entities that, by the nature of their business structure, are expected to actually benefit from inflation.

Among the impediments to achieving such exposure from passive investment funds, two stand out. First, companies that are classically considered to be inflation beneficiaries⁶ now account for less than 3.5% of the S&P 500 by weight. They have been marginalized.

Second, as traditional business models, while they have appreciated during brief bouts of inflation, they have done poorly during extended periods of inflation. This is because they are asset intensive businesses, both as to physical capital and human capital. Over time, inflation acts upon the cost of replacing equipment, of purchasing and developing new reserves, and of retaining and compensating employees. This erodes both profit margins and the stock valuations.

In contradistinction, there is a limited universe of business models that are asset-light, rather than asset intensive, and which derive their revenues from assets that tend to be inflation vectors or from activities that tend to increase during such periods. Many are service sector businesses, not merely physical resource businesses.

One example of an asset-light physical resource business is a precious metals royalty company, which we've explained often enough in past reviews. Royalty companies don't require capital equipment or property; neither do they have any operations per se, just administrative staff. Therefore, they benefit fully from any increase in the price and volume of the underlying commodity in which they have a royalty interest.

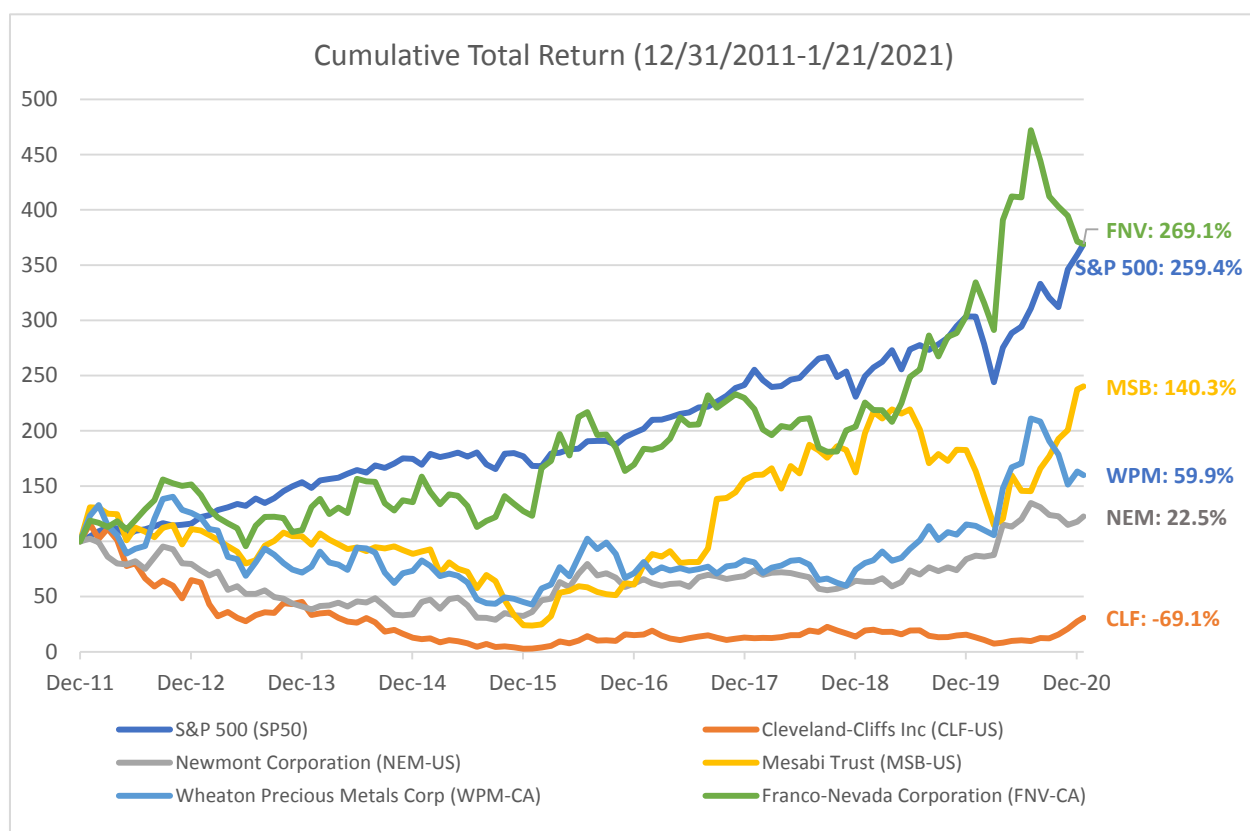
Importantly, they have very high profit margins and, not having to maintain plant and equipment, extraordinarily high free cash flow margins. For that reason, they are profitable even when there is no inflation in the price of the underlying commodity. They are profitable even if the commodity price is declining. That makes them unique in the universe of commodity sector companies – they can continue to generate and compound earnings even during severe downturns.

Here is the return chart for a gold royalty company (FNV), a silver royalty company (WPM) and an iron ore royalty company (MSB). During this 9-year period from Dec 2011 to today, the prices of the assets from which these companies derive their revenues and earnings were as follows:

⁶ Energy, precious metals, other metals miners.

- Gold, after declining by 35% over the course of many years, is now only 5% higher.
- Silver first declined by 55%, and remains 20% lower.
- Iron ore first declined by 70%, and is now 25% higher than 9 years ago.

The company results versus the stock market may be seen below. Also included are the results for the largest U.S. gold miner and largest iron ore miner. The royalty company results are rather extraordinary, considering that this was an exceedingly unfavorable time – a depression, basically, for the commodities themselves and for the mining companies. That is the power of a royalty business model. One might imagine how they would fare when those metals prices and production are actually rising.



Source: Factset, Indexed Cumulative Total Return

There are many other types of companies with similarly fascinating or distinctive aspects to their business models and valuations, such as marine shipping brokers, that qualify as asset light inflation beneficiaries. We have developed specific strategies and products around this attribute.

Another Uncorrelated (Temporary) Asset Class – Japan Special Opportunity Strategy

Periodically, but very rarely, an investment opportunity in a non-U.S. stock market arises because of a regulatory or cultural change unique to that nation and to that time. It cannot be recreated anywhere else, not even on Wall Street. It typically has the character of some industry or sector that was artificially constrained for a long period of time, until the regulation or limitation outlived its usefulness or the economic distortions it created began to interfere with other policy goals.

By their nature, these instances are characterized by deeply discounted valuations of the companies in question. They also are characterized by an active value realization catalyst, namely the regulatory and policy change. That makes them high-return, low-risk possibilities and also, being so idiosyncratic, uncorrelated with other asset classes.

Such a process is occurring now in Japan. Japan has become of increasing interest to activist investors. They are attracted by the almost singularly low valuations and high cash balances of the publicly traded companies there. These reflect generations of cross-ownership arrangements between corporations as a defense against takeovers, as well as a proliferation of publicly listed subsidiaries that served a corporate culture of lifetime employment. It made for very inefficient operations and low returns on capital. Ownership structures are opaque, and managements have not been accountable to shareholders for capital allocation decisions, performance, or information disclosure. These practices were in fact successful: the incidence of hostile acquisitions in Japan is very, very low.

Beginning several years ago, the government determined to revitalize the private corporate sector, including forcing publicly traded companies to gradually tear down the barriers to change they had built up. Since 2013, year by year, additional regulatory directives have been enacted, ranging from the inclusion of outside directors on corporate boards, to tax law changes, to a change in the market structure of the Japan Stock Exchange. These effectively place both pressure and financial incentives on public companies to eliminate their publicly traded subsidiaries, either by spin-off or by acquiring them. The government's efforts are clearly bearing fruit, with corporate restructurings on the rise, along with hostile takeovers and the incidence of parent companies acquiring subsidiaries.

A recent rule change at the Tokyo Stock Exchange can seriously impact the listing status of both a parent company that has subsidiary and cross-holding ownership, and the subsidiary itself. This rule change has a time component to it that is intended to play out over the coming year or so. Accordingly, we expect the rate of corporate restructuring activity to accelerate.

In every market, there are swathes of inefficiency. Sometimes it is information- and analysis-based, and often it is the liquidity divide – as between large companies and those of insufficient scale to interest institutional or activist investors. There are almost 4,000 listed companies in Japan, hundreds of listed subsidiaries, and a wealth of return-on-research-effort possibilities. In that regard, our Japan team, my colleagues Aya Weissman (co-Portfolio Manager and Director of Asia Strategy) and Utako Kojima (Portfolio Analyst), have been engaged in company-specific research and novel strategy development for a decade.

This particular strategy they developed – the Japan Special Opportunity Strategy – is fascinating on both a sociological and investment basis, but it won't be done justice here. It is another tool, let's call it asset class, that can add functional, not merely semantic, diversification to a conventionally structured portfolio.

A Transactional Inclusion Index (With ESG Benefits), OR
An Improved ESG Index (With Diversification Benefits)

ESG investing (in deference to environmental, social and governance considerations) has become a mainstream class within indexation. Every sort of major equity index now has an ESG version. It has some serious challenges, though, for someone who desires fidelity to a socially responsible investing goal.

One challenge is that despite a set of 10 governing ESG principles, these leave sufficient uncertainty about the actual implementation that there is very wide variation between different ESG indexes, even those managed by the same advisor.

iShares has an MSCI USA ESG Select ETF with a 2.3% energy weighting, and it also has an ESG Advanced MSCI USA ETF with a 0% energy weighting. The 2.3% energy weight in the first ETF may be compared with the S&P 500 energy weight on that same day, which was 2.5%. Would anyone concerned about holding or not holding energy stocks consider the difference between 2.3% and 2.5% to mean anything at all?

There is the question of whether energy should even be a weighting. But the answer to that is not as obvious as it might seem, because some energy companies are at the forefront of large-scale carbon capture technology projects, any of which, if successful, could be carbon-emission game changers.

Another problem is the appearance in ESG indexes of companies that wouldn't be thought to be associated with environmental damage, yet in practice are. Perhaps surprisingly, Hershey Company and Tootsie Roll are associated with significant greenhouse gas emissions, water pollution via fertilizer and soil run-off, and significant habitat loss and land erosion in biodiverse regions via land-clearing. That's because their business is dependent upon sugar cane cultivation.

One reason for these often paradoxical results is because of the methodology of ESG index creation, which is based on an *exclusionary* approach: one must review a variety of variables, yet for which there are not necessarily objective criteria. One starts with the entire universe of stocks and must then exclude. This can become exceedingly complex. For instance, Hershey and Tootsie Roll do not actually produce sugar, yet they create demand for sugar. If creating demand for sugar is bad, neither is the purchase and use of sugar illegal, so that there can be no governmental pressure to address the sugar pollution issue. Questions like this can dog almost any potential security selection for ESG indexes.

An alternative approach would be to develop a set of ESG *inclusionary* principles in which all members of an index are selected because they already follow a set of universally applied standards. This would dispense with competing arguments that ultimately require so many different ESG indexes.

We're developing just such an index, a Transactional Inclusion Index, and it has many intriguing and beneficial characteristics, both from an ESG perspective and also from a diversification and correlation perspective. These characteristics derive from four inclusion criteria, one of which is that the business must

already operate under government or regulatory oversight, which should entail higher governance and accountability standards than the typical company.

Another inclusion criterion ensures that these businesses do not engage in classes of operating activities that pollute or despoil, such as manufacturing or resource extraction. Another selects for businesses with a highly unusual breadth of exposure to broad economic activity, which is done for diversification purposes.

A very important characteristic is that these businesses will all tend to benefit from an inflationary environment.

In any case, this is another example of an alternative method of exposure outside of the systemic risks of the indexed asset classes.

There are more to speak of, and if there's interest we can review some of them in the future.

What is NOT Research or Information

Sample #1

At 11am on a given morning in January, a review of CME Group appeared on Yahoo Finance. To the unalerted eye, it was a detailed, statistics-heavy analysis of CME's December trading results. It noted that there was one more trading day in this past December than in 2019. It noted that December volumes decreased 1%, "attributable to lower volumes in two of the six product lines." It noted that the shares "lost 1% in the day's trading in response to the soft volumes." The headline: **CME Group Reports Lower December Volumes, Stock Down.**

I rushed to sell the stock. If that's what's going on, I wanted to do it quick, before the heavy selling started.

That done, and with a calmer mind, I could pay closer attention. There was some curious wording: "Shares of CME Group have underperformed the industry in a year." 'Underper-formed in a year'? Did the analyst mean the 6 days this year, through the January 6th date of the article? Or last year, meaning all of 2020? Very awkward wording for a financial journalist; language is a journalist's special skill.

On 1/6/21, 11am

CME Group (CME) Reports Lower December Volumes, Stock Down

Zacks Equity Research

January 6, 2021



CME Group Inc. CME reported soft average daily volume (ADV) for December 2020. Average daily volume of 14.2 million contracts per day was down 8% year over year, attributable to lower volumes in four of the six product lines. There were 22 trading days in December this year versus 21 days in December 2019. Shares of the company lost 1% in the day's trading in response to the soft volumes.

Is it possible that the author wasn't a human being? Could it possibly have been – was it possible? – an algorithm that snatches numbers from data fields in financial filings, maybe combined with AI that does some Wall-Streety phrase-sampling.

Another line: "The stock has lost 9.8% against the industry's increase of 7.8%. Nevertheless, its solid fundamentals will likely help the stock regain its growth momentum." "Regain its growth momentum"? Was it ever lost? Peering into this language: is there a human in there?

One paragraph further down: "Investors interested in the same space can look at Cboe Global Markets CBOE and Nasdaq NDAQ, each carrying a Zacks Rank #2." Would a financial journalist have omitted the parentheses for the ticker: Nasdaq NDAQ vs Nasdaq (NDAQ)? Who would leave those out? Color me suspicious.

Then: "You can see the complete list of today's Zacks #1 Rank (Strong Buy) stocks here." Today's list? The strong buys change by the day? Would human analysts change their buy ratings by the day? Could they even manage that?

At 2pm on that same day, CME Group stock is up 8% on 50% above-average volume. What's that about?

The prior morning there was another piece on CME Group. It was the company's own review of its trading statistics, for the year, the quarter and the month.

It's interesting that the analysis article chose the 1-month statistics and not the quarter or year. What does a month mean, though, to a securities exchange? Anything can happen in a month.

So what happened in the year?

Apparently, record volumes across: equity index futures and options, metals futures and options, natural gas futures and options, interest rate futures and options, 10-Year Treasury Note Futures, soybean futures and options....and more. The 4th quarter: more of the same.

Wow! What breadth, what verve! That's what I'm talking about! That'll teach me to take stock advice from an algorithm.

Jan 5, 2021

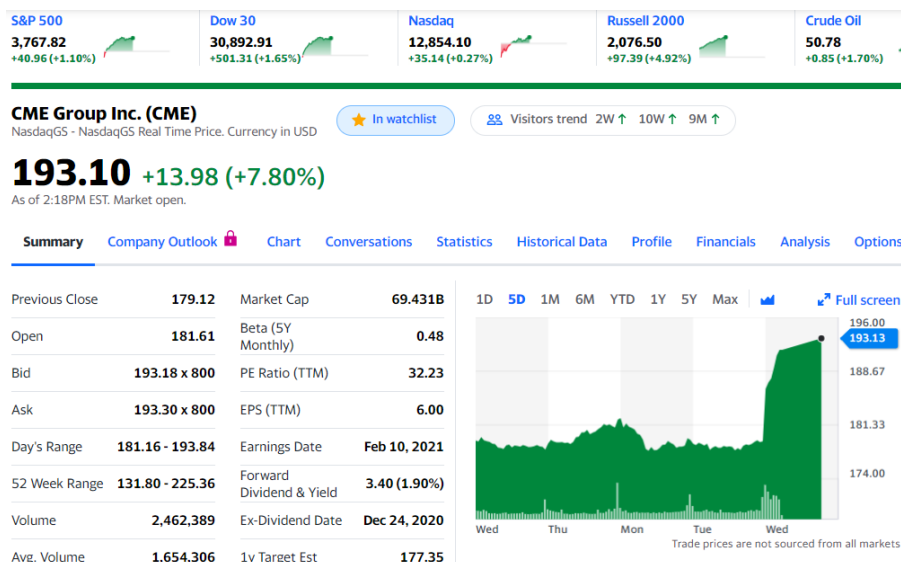
CHICAGO, Jan. 5, 2021 /PRNewswire/ -- CME Group, the world's leading and most diverse derivatives marketplace, today reported its full-year, Q4 and December market statistics, showing it reached average daily volume (ADV) of 19.1 million contracts during the year, 16.2 million contracts during the fourth quarter, and 14.2 million contracts during the month of December. Market statistics are available in greater detail at <https://cmegroupinc.gcs-web.com/monthly-volume>.

Full-year 2020 highlights across asset classes include:

- Record Equity Index futures and options ADV of 5.6 million contracts, up 63% over 2019
- Record E-mini S&P 500 futures and options ADV of 2.7M contracts
- Record E-mini Micro futures and options ADV of 1.8M contracts
- Record E-mini Nasdaq 100 futures and options ADV of 585,000 contracts
- Record Metals futures and options ADV of 699,000 contracts
- Record Natural Gas futures and options ADV of 639,000 contracts
- Interest Rate futures and options records including:
 - Record Ultra 10-Year U.S. Treasury Note ADV of 255,320 contracts
 - Record Ultra U.S. Treasury Bond ADV of 207,200 contracts
 - Record SOFR ADV of 51,000 contracts
- Record Soybean Oil futures and options ADV of 141,000 contracts

Q4 2020 highlights across asset classes include:

- Record Micro E-mini Equity Index futures and options ADV of 2 million contracts, representing a 332% increase in ADV over Q4 2019
- Record Micro E-mini Nasdaq 100 futures ADV of 871,000 contracts
- Record regional Agricultural products ADV:
 - EMEA Agricultural ADV of 289,000 contracts per day
 - APAC Agricultural ADV of 112,000 contracts per day
- Record SOFR futures ADV of 69,000 contracts per day
- Record Soybean Oil options ADV of 18,000 contracts per day



Sample #2

As of December 31, 2020, Horizon Kinetics (and our clients) were the largest holders of Texas Pacific Land Trust. It is the largest holding in many client accounts. For some who have owned TPL for many years, it has become their overwhelmingly largest investment. Our first research report and purchase recommendation was made 25 years ago, in May 1995.

Imagine their surprise – or alarm – to read, on January 12th, that Murray Stahl, Chairman of Horizon Kinetics and, as of 2020, a Board Member of TPL, had sold the entire position: “Prior to selling the holding, Stahl was by far the largest shareholder with 20.91% of shares outstanding.”

Murray Stahl Closes Out Texas Pacific Land Trust Holding

Firm sees superior gains from the oil land management trust

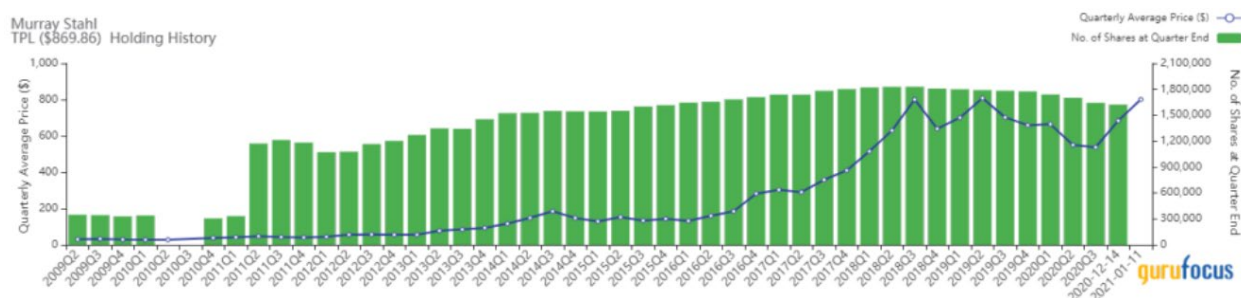
January 12, 2021

[Murray Stahl](#) ([Trades](#), [Portfolio](#)) has revealed that he has sold out of his holding in Texas Pacific Land Trust ([NYSE:TPL](#)) according to [GuruFocus' Real-Time Picks](#), a Premium feature.

Stahl co-founded Horizon Kinetic in 1994. The New York-based firm takes a long-term fundamental value investment approach to achieve strong returns. It takes a contrarian approach and measures risk as an impairment of capital.

Not to be ignored:

- [Warning! GuruFocus has detected 7 Warning Signs with TPL. Click here to check it out.](#)



Murray Stahl Closes Out Texas Pacific Land Trust Holding

Imagine the calls we received.

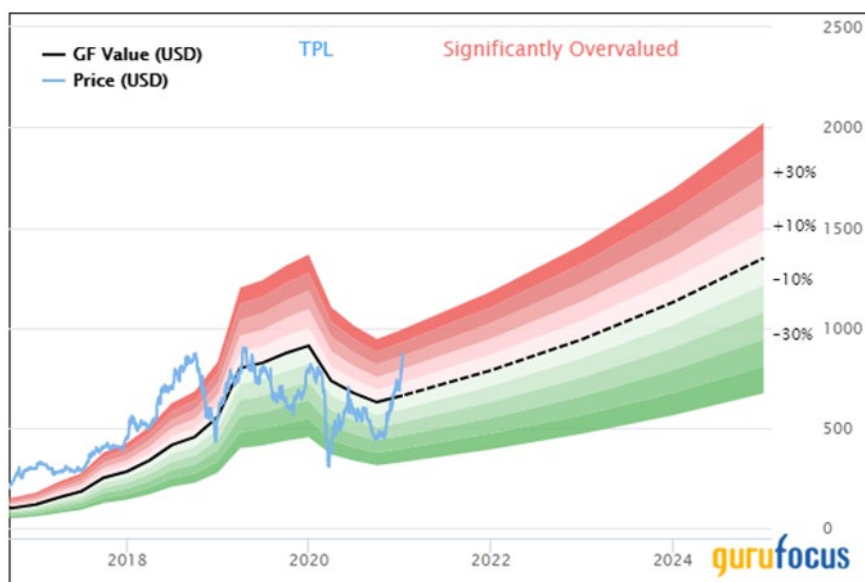
Surely, it couldn't be an error – there was a byline by a financial reporter, and for GuruFocus, a “value investing research platform” that has 40,000 daily users. GuruFocus not only reports what various “gurus” buy and sell, but “on why they buy or sell the stocks, and how they do their research.” It analyzes “stocks following the processes of Warren Buffett, Ben Graham and other value investing giants.”

The analysis certainly had many detailed statistics:

Overall, the sale had an impact of -45.31% on the equity portfolio and GuruFocus estimates the total gain of the holding at 698.69%.

But that's an odd thing for a financial reporter to write. How can an investment that gained 698.69% have a -45.31% impact on a portfolio? Even if the proceeds simply went into a money market fund, it couldn't negatively impact the portfolio. And which portfolio? The Horizon Kinetics managed assets certainly do not have a 45% weight or allocation to TPL.

Would a *person* write such a thing without checking?



GuruFocus gives the trust a financial strength rating of 7 out of 10, a profitability rank of 10 out of 10 and a valuation rank of 5 out of 10. There are currently four severe warning signs, including declining gross and operating margins and assets growing faster than revenue. The current cash-to-debt ratio of 105.89 ranks the trust higher than 83.38% of the industry and cash flows have increased steadily over the years.

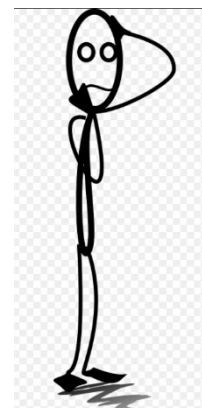
I dunno...after that experience with CME Group, I'm getting gun-shy of algorithms in authors' clothing.

The author goes on to summarize the analysis. But this has a similar weird disconnect: completely contradictory statistics, yet without explanation or even acknowledgement. It says, essentially, that TPL has superior, even perfect, financial strength, profitability, operating and cash flow characteristics, and yet there are four severe warning signs.

You would think a financial journalist, a human being, would give this a second thought before publishing.

An algorithm, though, can't scratch its head and give another look. It can scrape numbers from fields in a data base, and string them together into a paragraph, but it can't wonder whether it needs to look again.

Another look, like what a *person* might do, is go to the sec.gov website and just *look* at the filings listed for TPL. They might see this:



Public SEC Filings:

1. 1/12/21, 5:35pm, re. Texas Pacific Land Trust shares
2. 1/12/21, 7:35pm, re. Texas Pacific Land Corp shares

If they opened one of those documents, they might see this:

Pursuant to the Plan of Reorganization of Texas Pacific Land Trust, which became effective before the opening on January 11, 2021, Sub-shares in Certificates of Proprietary Interest of Texas Pacific Land Trust (OLD) were exchanged for Common Stock of Texas Pacific Land Corporation (NEW) on a pro-rata, one-for-one basis. [As] a result of the above indicated conditions this security was suspended from trading on January 11, 2021...and does not affect the continued listing on the NYSE of the Texas Pacific Land Corporation (NEW) Common Stock.

Open another two and they would see that, two hours apart, Horizon Kinetics reported that it no longer owned Texas Pacific Land *Trust* and commenced to own Texas Pacific Land *Corporation*. But those were discontinuous sets of data, and an algorithm can't scratch its head.

<https://www.sec.gov/cgi-bin/browse-edgar?company=texas+pacific+land&CIK=&type=&owner=include&count=40&action=getcurrent>

Latest Filings Received and Processed at the SEC

This listing contains the most recent filings for the current official filing date (including filings made after the 5:30 pm deadline on the previous filing day). Filings may be made Monday through Friday (except for [U.S. Federal Holidays](#)).

Key to Descriptions

- (**Filer**) Filing was made by and describes the company named.
 (**Subject**) Filing describes the company named but was made by another entity.
 (**Filed by**) Filing was made by the company named but describes a subject company.
 (**Reporting**) Filing was made by an individual reporting holdings in a company.
 [**Paper**] [Paper filings](#) are available by film number.
 [**Cover**] Filing contains an SEC-released cover letter or correspondence.
 (Each "Reporting" and "Filed by" filing has a matching "Subject" listing.)

Items 1 - 4 [RSS Feed](#)

Form	Formats	Description	Accepted	Filing Date	File/Film No
3	[html] [text]	Texas Pacific Land Corp (0001811074) (Issuer) Initial statement of beneficial ownership of securities Accession Number: 0001056823-21-000009 Size: 5 KB	2021-01-12 19:35:26	2021-01-12	
4	[html] [text]	TEXAS PACIFIC LAND TRUST (0000097517) (Issuer) Statement of changes in beneficial ownership of securities Accession Number: 0001056823-21-000008 Size: 5 KB	2021-01-12 17:35:22	2021-01-12	
SC 13D	[html] [text]	Texas Pacific Land Corp (0001811074) (Subject) General statement of acquisition of beneficial ownership Accession Number: 0001056823-21-000007 Act: 34 Size: 108 KB	2021-01-12 15:45:17	2021-01-12	005-91958 21523492
25-NSE	[html] [text]	TEXAS PACIFIC LAND TRUST (0000097517) (Subject) Notification filed by national security exchange to report the removal from listing and registration of matured, redeemed or retired securities Accession Number: 0000876661-21-000048 Act: 34 Size: 4 KB	2021-01-12 13:07:39	2021-01-12	001-00737 21523064

To limit filing results, enter company name, CIK, or form type.

Company

CIK

Form Type

Ownership? ☒ Include ☐ Exclude ☐ Only

40 Entries

IMPORTANT RISK DISCLOSURES:

The charts in this material are for illustrative purposes only and are not indicative of what will occur in the future. In general, they are intended to show how investors view performance over differing time periods.

Past performance is not indicative of future results. The information contained herein is subject to explanation during a presentation.

Certain of the material herein is intended to portray the general nature of investor communications provided by Horizon Kinetics from time to time to existing clients. None of the investments or strategies referenced should be construed as investment advice and just because one investment is appropriate for one account does not necessarily mean it is appropriate for another. No investments should be made without the analysis of, among other things, an investor's specific investment objectives, which considers their overall portfolio and any income requirements. The accounts referenced herein pursue an unconstrained strategy – meaning they are not limited by capitalization, geographic region, or investment techniques. They generally primarily seek capital appreciation with a secondary objective of income.

Note that indices are unmanaged and the figures shown herein do not reflect any investment management fee or transaction costs. Investors cannot directly invest in an index. References to market or composite indices or other measures of relative market performance (a "Benchmark") over a specific period are provided for your information only. Reference to a Benchmark may not reflect the manner in which a portfolio is constructed in relation to expected or achieved returns, portfolio guidelines, correlation, concentrations, volatility or tracking error targets, all of which are subject to change over time.

This material references cryptocurrencies, including bitcoin. Horizon Kinetics' subsidiaries manage products that seek to provide exposure to bitcoin and other cryptocurrencies. The value of bitcoins is determined by the supply of and demand for bitcoins in the global market for the trading of bitcoins, which consists of transactions on electronic bitcoin exchanges ("Bitcoin Exchanges"). Pricing on Bitcoin Exchanges and other venues can be volatile and can adversely affect the value of the bitcoin. Currently, there is relatively small use of bitcoins in the retail and commercial marketplace in comparison to the relatively large use of bitcoins by speculators, thus contributing to price volatility that could adversely affect a portfolio's direct or indirect investments in bitcoin. Bitcoin transactions are irrevocable, and stolen or incorrectly transferred bitcoins may be irretrievable. As a result, any incorrectly executed bitcoin transactions could adversely affect the value of a portfolio's direct or indirect investment in bitcoin. Only investors who can appreciate the risks associated with an investment should invest in cryptocurrencies or products that offer cryptocurrency exposure. As with all investments, investors should consult with their investment, legal and tax professionals before investing, as you may lose money.

The S&P 500 Index ("SPX") is a broad based index widely considered as a proxy for overall market performance. It is the property of Standard & Poor's®.

This is not an offer to sell or a solicitation to invest. Opinions and estimates offered constitute the judgment of Horizon Kinetics LLC ("Horizon Kinetics") and are subject to change without notice, as are statements of financial market trends, which are based on current market conditions. Under no circumstances does the information contained within represent a recommendation to buy, hold or sell any security, and it should not be assumed that the securities transactions or holdings discussed were or will prove to be profitable.

Subsidiaries of Horizon Kinetics LLC manage separate accounts and pooled products that may hold certain of the individual securities mentioned herein. For more information on Horizon Kinetics, you may visit our website at www.horizonkinetics.com. The Core Value and Small Cap separate account strategies are managed by Horizon Asset Management LLC.

Not all investors will experience the same holdings, returns or weightings as the corresponding composite. No part of the research analysts' compensation was, is, or will be, directly or indirectly, related to the specific recommendations or views expressed by the research analysts in this report.

No part of this material may be copied, photocopied, or duplicated in any form, by any means, or redistributed without Horizon Kinetics' prior written consent.

©2021 Horizon Kinetics LLC® All rights reserved.