Introduction

The stock market can stay irrational longer than investors can stay solvent. At least that's the old wives' tale of the stock market. Respectively, I'd recommend a slight revision to the adage: The stock market can stay irrational longer than investors can stay "sane". Solvency is certainly not an issue for our clients right now. But the insanity of the markets is. In one camp are market strategists who argue that we are in a new bull market, led higher by the advent of artificial intelligence. In the other camp are strategists who cite the growing preponderance of data suggesting the economy is slowing down into recession. In the following pages, we take our best shot at reading the tea leaves. We hope you find our comments insightful, or at the very least, thought-provoking. And as always, we welcome your questions, comments, and feedback. And ideas for future commentaries.

Recap

The first half of 2023 was a strong period for stocks. Coming off a dismal 2022, stock staged a rally through the first six months of the year. Below we present various annualized returns over various time periods.

	Trailing 12 Mo. Return[8]	3-Yr Avg Return[8]	5-Yr Avg Return[8]	10-Yr Avg Return[8]
US Large Companies (Broad) [1]	19.59%	14.60%	12.30%	12.36%
US Large Companies (Tech) [2]	33.13%	15.23%	17.65%	19.21%
US Mid-Size Companies [3]	17.61%	15.44%	7.78%	10.20%
US Small Companies [4]	12.31%	10.82%	4.21%	8.25%
International Companies [5]	19.41%	9.48%	4.90%	5.91%
Bonds [6]	-0.94%	-3.96%	0.77%	1.52%
Commodities [7]	-9.61%	17.82%	4.73%	-0.99%

[1] Return based on S&P 500 total return index per Morningstar.
[2] Return based on Nasdaq 100 total return index per Morningstar.
[3] Return based on S&P 400 total return index per Morningstar.
[4] Return based on Russell 2000 total return index per Morningstar.
[5] Return based on MSCI EAFE gross return index per Morningstar.
[6] Return based on Bloomberg Barclays US Aggregate Bond total return index per Morningstar.
[7] Return based on Bloomberg Commodity total return index per Morningstar.
[8] Returns are given in annualized percentages.

While the YTD returns have been positive, we feel it's important to note that stocks are still down significantly since the market hit an all-time high back on January 4, 2022. In fact, since that date, all the broad categories noted above are negative, same for a small gain for Commodities.

Equity Analysis

We might be tearing open some old wounds by mentioning high school or college GPAs, but it serves as a good analogy for what is currently happening in the stock market. So please hang with us. We promise it'll be worth your while.

Let's say, for example, that you are taking three courses. Two of these courses are for 3.0 credits, and the last course is for 6.0 credits.

	Credits
Course #1	3.0
Course #2	3.0
Course #3	6.0
Total Credits	12.0

It logically follows that Course #3 carries more weight than Courses #1 and #2.

	Credits	Weight
Course #1	3.0	25%
Course #2	3.0	25%
Course #3	6.0	50%
Total Credits	12.0	100%

In our example, we're going to substitute numeral grades for GPA points. So, if you score an 80 in each course, your GPA, or average score, would be 80.

But what if you score 80 of Courses #1 and #2 and 100 on Course #2? Your average would be 90.

	Credits	Weight	Score	Weighted Score
Course #1	3.0	25%	80	20 (80 * .25)
Course #2	3.0	25%	80	20 (80 * .25)
Course #3	6.0	50%	100	50 (100 * .50)
Total Credits	12.0	100%		90

This simple example is exactly how the stock market works, albeit with stock prices instead of numeral grades. Imagine a course load with 500 courses. That's the S&P 500, the primary U.S. stock market index. The S&P 500 has 500 companies representing the biggest companies in America. Much like each course has a weighting, each stock has a weighting in the index. So you have a lineup for 500 companies with 500 weightings.

In the case of the S&P 500, the weightings are really biased. How do we mean? **Figure 1**[1] (next page) lists the top 10 stocks by weighting. Do you notice anything peculiar? You should. The top 10 stocks account for 36% of the entire weight. In contrast, the other 490 stocks account for 64% of the weighting. Put another way, this course load is really top-heavy.

[1] Source: https://tinyurl.com/SP5002023

Now, imagine the scenario where the top 10 companies have a score of 100 and the bottom 490 have a score of 60.

	Weight	Score[2]	Weighted Score
Top 10	36%	100	36 (100 * .36)
Bottom 490	64%	60	38 (60 * .64)
Total Credits	100%		74

If all you saw was the average of 74, you'd say that the stock market gets a passing score.

But if you looked under the surface, you'd see the bottom 490 stocks are failing. The only reason the overall average is passing is because the top 10 are crushing it.

Guess what? You don't need to imagine this scenario. It is already happening. **Figure 1** shows a visual representation of this. The S&P 500 is up 17.20% through July 5. But, the overwhelming majority of that gain comes from only the top 10 stocks. Put another way, if you take out the top 10 stocks, the S&P 500 is negative for the year.

Figure 1: S&P 500 Attribution for YTD 2023

Company	Market Cap ($Mil)	Weight	YTD Return	Weighted Return
GOOG	3,053,120,480,000	7.24%	38.21%	2.76%
AAPL	3,027,146,240,000	7.17%	47.26%	3.39%
MSFT	2,513,120,480,000	5.96%	41.00%	2.44%
AMZN	1,522,370,240,000	3.61%	55.21%	1.99%
NVDA	1,336,103,280,000	3.17%	189.56%	6.00%
TSLA	1,047,601,152,000	2.48%	129.32%	3.21%
BRK.B	886,890,624,000	2.10%	10.57%	0.22%
META	743,762,048,000	1.76%	144.62%	2.55%
V	732,992,576,000	1.74%	15.25%	0.26%
UNH	445,793,248,000	1.06%	-11.12%	-0.12%
Bottom 490	26,888,478,475,000	63.72%		-5.52%
	42,197,378,843,000	100.00%		17.20%

But why is it fair to break apart the 500 stocks into the top 10 and bottom 490? Who cares if the 490 are barely passing if the entire 500 shows a passing score? After all, it's the overall GPA that goes on your resume, not the individual courses. These are fair questions.

[2] These scores are purely arbitrary. They are used for illustration purposes. However, they are representative of the point being made in the argument. In practice, the S&P 500 is weighted against the stock price of each company. For example, if Company A has a weight of 60% and price per share of $100 and Company B has a weight of 40% and price per share of $200, the weighted average is $140 [(60% * $100) + (40% * $200)].

What if we told you the top 10 were cheating? Heck, what if we told you the bottom 490 were cheating, too, just not cheating as badly as the top 10? Would that change the perspective? Heck yes it would!

How do we know the stocks are cheating? We simply compare valuations now vs. average valuations over time. It's the same idea as a student who has averaged a B for three and a half years who miraculously gets straight As in the last semester. Is it possible? Sure. Is it probable? No. The student is an average student. Maybe he occasionally gets a B+ or a B-. But he doesn't go from a solid Bs to consistent As all of a sudden. The stock market works the same way. We know the average. We know how it's performing now. And that allows us to surmise that it could be cheating. But "could be" and "absolutely is" are two separate beasts. We argue that the market absolutely is cheating. And here's how we know.

The Price/Sales ratio is a measurement (one of many) of how far above or below the stock market is relative to its long run average. **Figure 2**[3] shows the P/S ratio back to the post-WWII era. In this case, the average P/S ratio is 1.082. Today, that ratio stands at 2.351. That difference may not seem extreme. Rest assured, it's a massive difference. For perspective, prior to the 2020s, the high point for P/S was in 2000. For those historians in the crowd, they'll recall that time was right before the Dotcom bubble blew up. From 2000 through 2002, stock investors were swooning, as the table below helps illustrate. A high P/S ratio relative to its historical norm implies poor future stock performance.

	S&P 500	**NASDAQ**
2000	(9.10%)	(36.82%)
2001	(11.89%)	(32.62%)
2002	(22.10%)	(37.52%)
Total Loss	(37.61%)	(73.40%)

If the S&P 500 were broken down into segments, it would look like **Figure 3**[4]. **The purple line** shows the P/S for the top 10% of the S&P 500. Remember, the top 10% includes the top 10 stocks. The **red line** shows the P/S for the bottom 10% of the S&P 500. The **green line**[5] shows the median P/S for the S&P 500. **Not just are the top 10% of stocks at super high valuations, but all stocks are well above long-term averages**.

The picture should be clear by now: markets are clearly stretched by historical standards. And a good deal of that stretch comes from the top 10% of stocks. That 10% of stocks includes the 10 stocks that are responsible for all the gains this year.

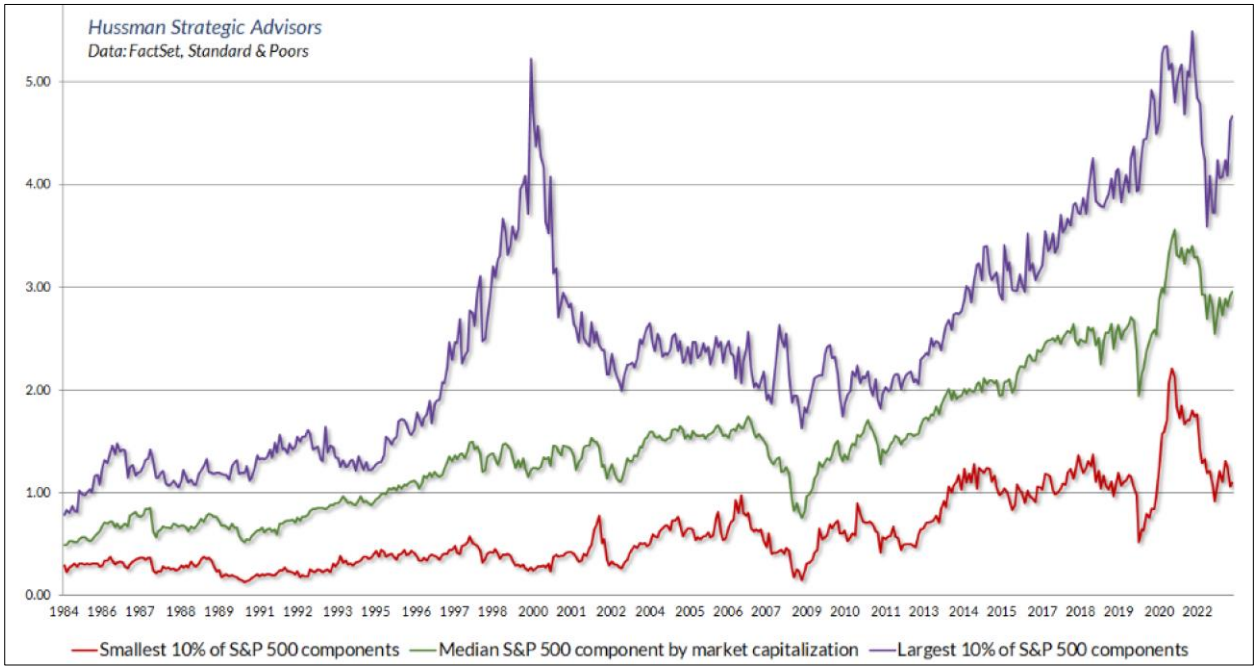
[3] Source: https://dqydj.com/sp-500-ps-ratio/

[4] Source: https://www.hussmanfunds.com/comment/mc230619/

[5] You may be tempted to compare the green line from Figure XX to the blue line from Figure XX. Keep in mind that the blue line is an average and the green line is a median. While the calculations are different, the message of both is the same: valuations are very high relative to history.

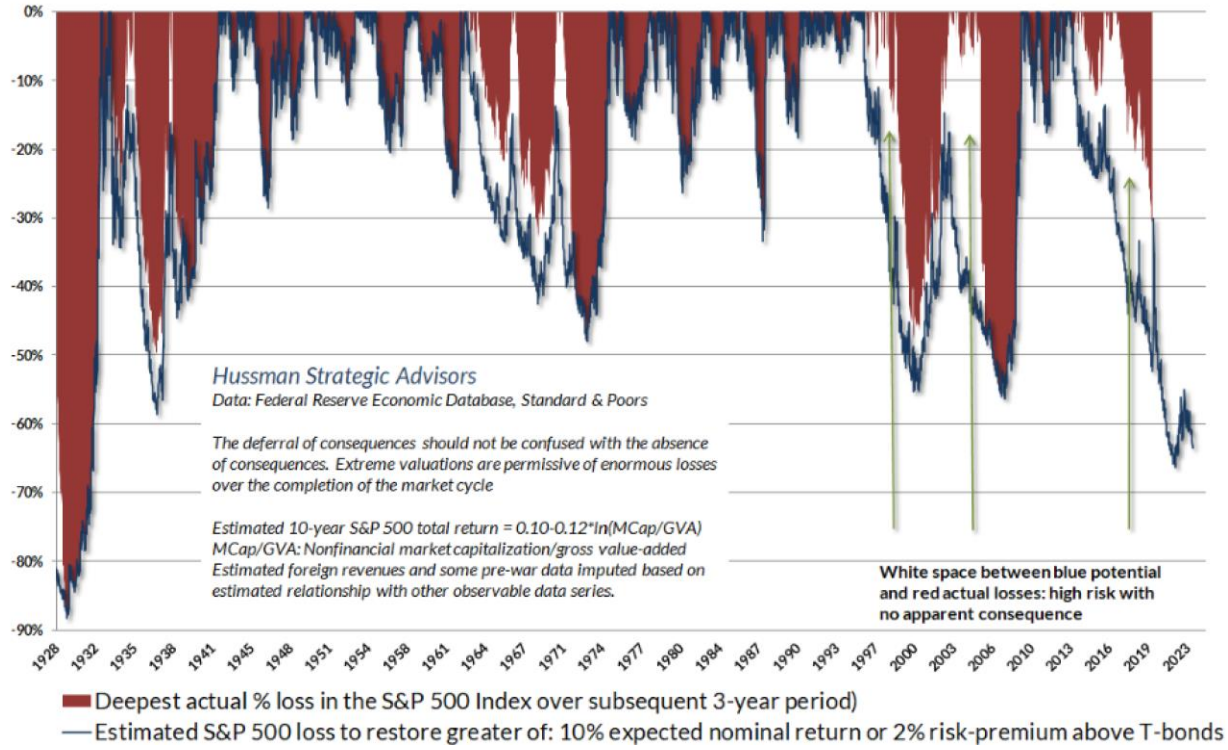
Figure 2: S&P 500 Price to Sales Ratio

Figure 3: Segmented S&P 500 P/S



Based on current valuations (like the P/S ratio), the stock market needs to fall roughly 60% from its current level to revert back to its long-term average. **Figure 4** shows this graphically[6]. The blue line shows how far stocks must fall to revert back to the long-term average return of 10% per year; think of this as a predictive line. The red fill shows how far stocks actually fell over the next three years; think of this as the prediction actually coming true. It's evident that the predictive model (the blue line) is quite accurate since actual stock returns (the red fill) agree to the model. In the epic bubbles of the past – the Great Depression (circa 1929), Dotcom (circa 2000), and the Global Financial Crisis (circa 2008) - it took some time for the red fill to catch up to the model, but it always did. **Today, that model suggests that stocks need to fall 60% to hit fair value. Wow!**

Figure 4: Max S&P 500 Drawdown Needed to Revert to Historically Normal Returns



Cheaters always get caught eventually, but they might not get caught immediately. The top 10 are undoubtedly cheating. But so are the bottom 490.

If we know the stock market is cheating, what can we do? The answer is simple: risk management.

In practice, this is easier said than done. Why? Because it creates conflict between our desire to chase short-term returns with our desire to manage risk for the long-term. In other words, in 2023, we all want to be up 17% for the year. But we don't want to feel the pain when the cheaters eventually get caught and the market falls. Timing the stock market is borderline impossible. There's no such thing as catching all the returns and avoiding all the losses. Rather, a better strategy is to stay patient, recognize the nose-bleed valuations, and implement risk management.

[6] Source: https://www.hussmanfunds.com/comment/mc230619/

Charts like the one above are instrumental in risk management. They scream for risk-off investments. But there's a catch: valuations have great medium- and long-term forecasting reliability, but they don't inform the short-term. Put another way, it's clearly evident that stocks need to fall (maybe by 60%!) to return to historically-normal valuations. And in time they most likely will. But that's not to say that stocks can't push another 10% or 20% or 30% higher from here. That's the very definition of a bubble. But if stocks need to fall 60% based on today's valuations, imagine how much they'd have to fall if they rally another 10% or 20% or 30%. The higher they go, the harder and further they have to fall. And that's what we mean by patience and risk management. If today we know stocks need to fall and we know timing the market is a fool's errand, practice risk management today.

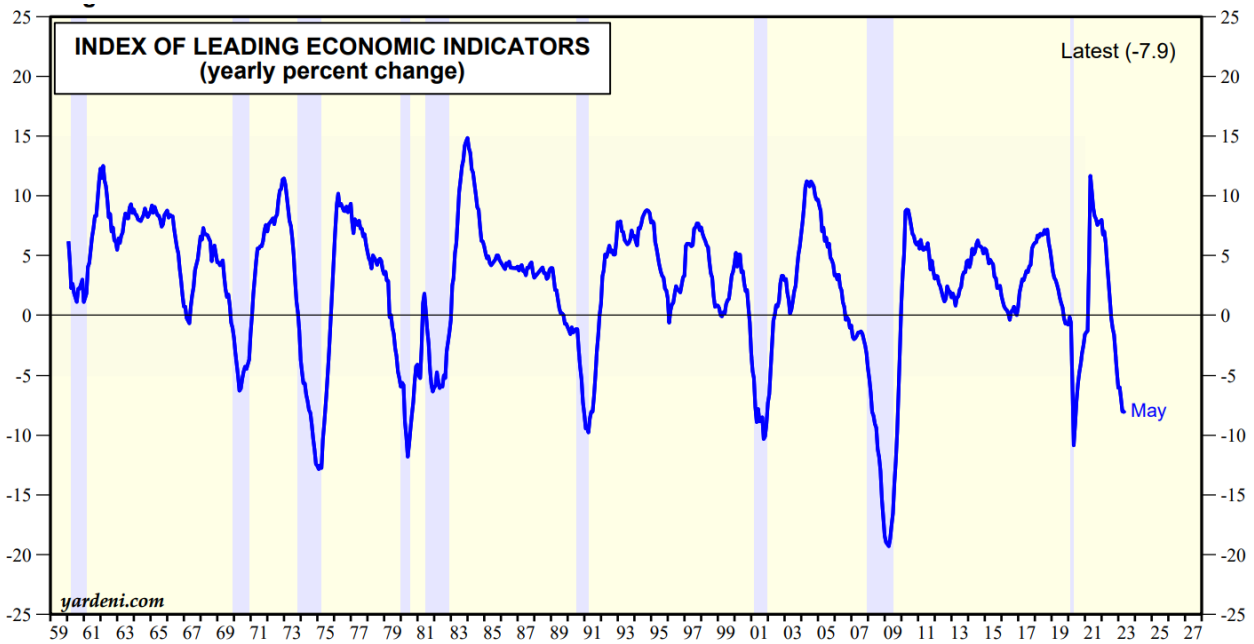
To recap, the only reason the stock market is positive this year is the performance of ten stocks. But those ten stocks, which are a disproportionately large size of the overall stock market, are cheating. When they eventually get caught cheating (and they always do), it will have a disproportionately negative impact on the stock market. But it gets better. The other 490 stocks are also cheating, albeit not as badly as the top 10. It would take a decline of 60% to bring the entire stock market down to historical norms.

The Economy

The "R" word has been all the rage for the last year. And rightfully so. Numerous indicators are flashing warning signs that recession is imminent.

First up is The Conference Board's index of Leading Economic Indicators ("LEI index") (**Figure 5**)[7]. The LEI index is a composite number, meaning it's the summation of many inputs. Those inputs include things like constructions data, employment figures, and manufacturing data.

Figure 5: The Conference Board Leading Economic Indicators



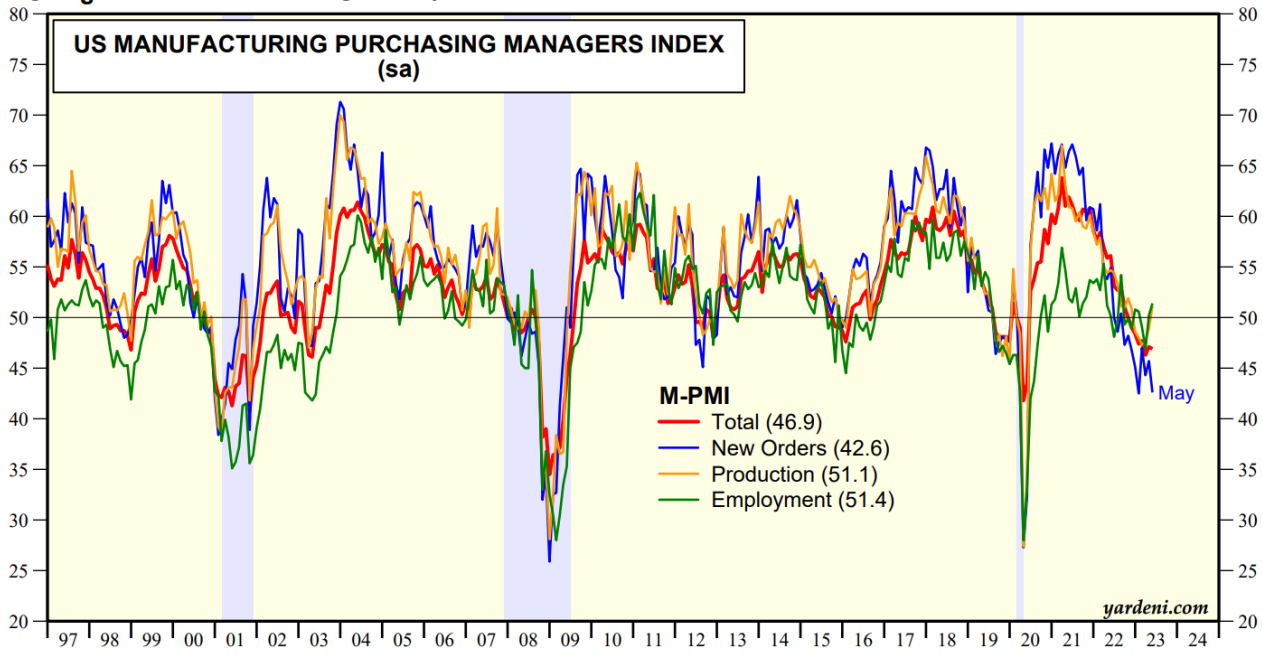
Note: Shaded areas are recessions according to the National Bureau of Economic Research.
Source: Conference Board.

[7] Source: https://www.yardeni.com/pub/ecoindlei.pdf

More importantly, the components of the index are considered to be "leading" indicators, meaning the direction of their movement – negative or positive – tends to precede the same directional movement for the economy. Today, the year-over-year change for the LEI index is deeply negative. Every time the YoY change has been this negative, a recession was imminent. More info on the LEI index can be found here.

The second set of economic data to observe is the Institute of Supply Management ("ISM") Manufacturing survey (**Figure 6**)[8]. The ISM Manufacturing survey ("ISM-M") is also a composite index created from multiple manufacturing data points from various factories. Also like the LEI index, it tends to lead the economy. An ISM-M figure greater than 50 indicates that manufacturing activity is expanding; conversely, a figure less than 50 indicates contraction.

Figure 6: ISM Manufacturing Survey

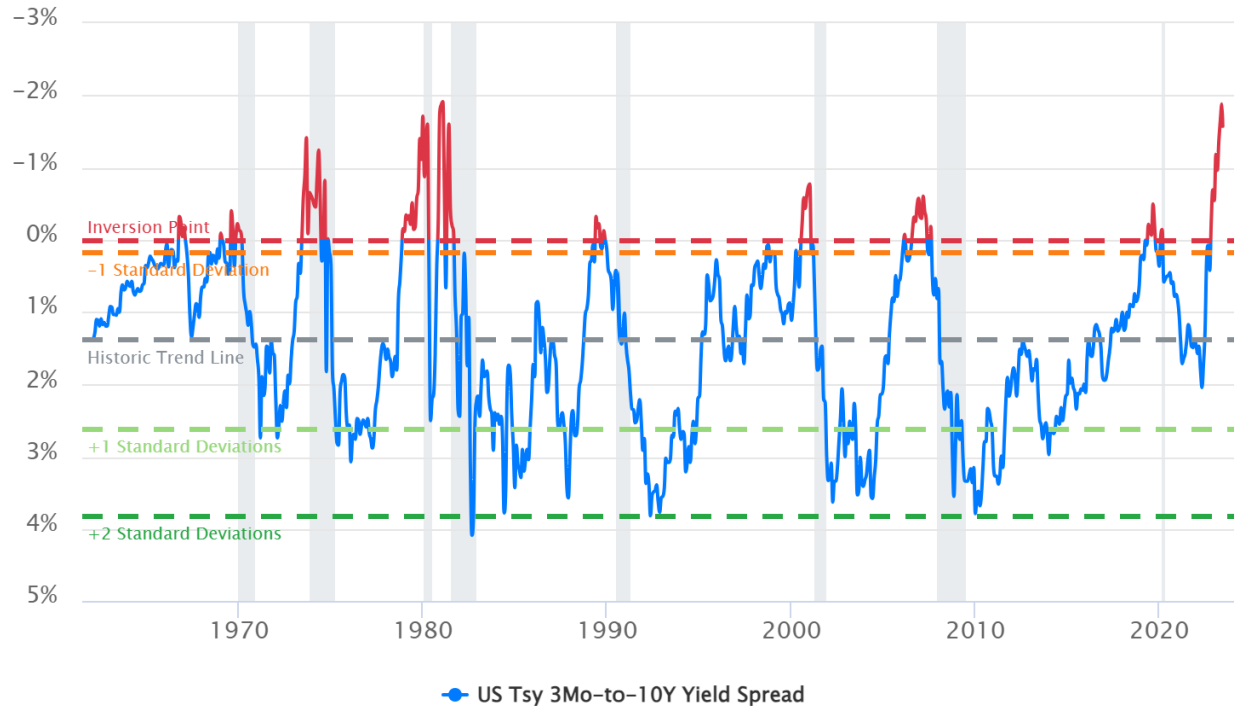


Note: Shaded areas are recessions according to the National Bureau of Economic Research.
Source: Institute for Supply Management.

And last but never least, one of our favorite indicators: The interest rate yield curve. We spoke about the yield curve and curve inversions at length in our June 30, 2022 commentary. Since then, the curve inversion has gotten more pronounced. **Figure 7**[9] shows the updated yield curve. It's approaching record inversion territory.

[8] Source: https://www.yardeni.com/pub/pmimfgnonmfg.pdf
[9] Source: https://www.currentmarketvaluation.com/models/yield-curve.php

Figure 7: US 10-Year Treasury Rate Less US Treasury 3-Month Treasury Rate



One indicator alone is hardly ever perfect (although an inverted yield curve has preceded every recession for the last couple decades). However, when multiple, historically reliable indicators are all flashing warning signs simultaneously, it is prudent to take heed and adjust your expectations going forward. Simply put: it is time to manage risk.

But much like the stock market, it's hard to know the timing of the recession. Yes, the indicator lights are flashing red, but sometimes the economy can run a few red lights. To help with the timing question, perhaps we can look to the consumer. After all, 2/3 of GDP comes from consumer consumption. If the consumer is strong, the economy can hum along.

The pandemic elicited an unprecedented spending spree by the government. After three rounds of stimulus payments, the average American found themselves with "excess savings." We previously addressed excess savings in our December 31, 2022 commentary. Imagine that your saving account has an average balance of $2,000. Now, after receiving stimulus payment, it's up to $3,000. The extra $1,000 is excess savings. On a macroeconomic level, the stimulus payments produced $2.1 trillion of excess savings. At first, you may be inclined to think this is good. But it's more akin to a sugar rush than a healthy diet. It also was the primary cause of the high inflation. Nonetheless, the consumer has gorged on these excess savings for the last couple years, and it has allowed folks to continue spending, even in a high inflation environment. But what happens when the excess savings are gone? We're left with higher prices and drained bank accounts. It is not a stretch to think the consumer will be mentally and financially tapped out at that point. And based on analysis by JP Morgan[10] (**Figure 8**), that point is the Fall of 2023.

[10] Source: https://twitter.com/MacroMicroMe/status/1672083768511954944

Figure 8: Accumulation and Drawdown of Excess Savings

So excess savings run out in Fall 2023. Various bell weather economic measurements are flashing warning signs. And the stock market is stretched to the max.

Oh, by the way, did we mention when the Dotcom bubble burst? September 2000. And when did the Housing bubble burst? October 2008. There's seasonality to the stock market. Just saying.

Inflation

We have talked about inflation ad nauseum in our past few commentaries. So we will make it brief this time around. The rate of inflation continues to trend down. The most common measure of inflation is the consumer price index ("CPI"). The Fed prefers a measure called personal consumption expenditures ("PCE"). No matter which measurement is used, the story is the same: inflation is down YoY (**Figure 9**)[11]. Both measurements indicate that inflation is running at about 5% right now.

The thing about both CPI and PCE is that they both use lagging information. The values of both today reflect data points that are already, in some cases, a few months old. As such, both measurements fail to capture inflation as it stands today.

[11] Source: https://fred.stlouisfed.org/series/CPIAUCSL#

Queue Truflation, a website that uses thousands of inputs to derive a real-time measure of inflation. Truflation uses the CPI calculation as its skeleton, but it makes various modifications to the methodology and incorporates real-time data to compute a measurement for current inflation. For those economic nerds among us (myself included), it is pretty neat. Here is a link to the methodology. Long story short, Truflation estimates inflation at 2.46% (**Figure 10**).

Figure 9: Inflation Rate per in CPI and PCE

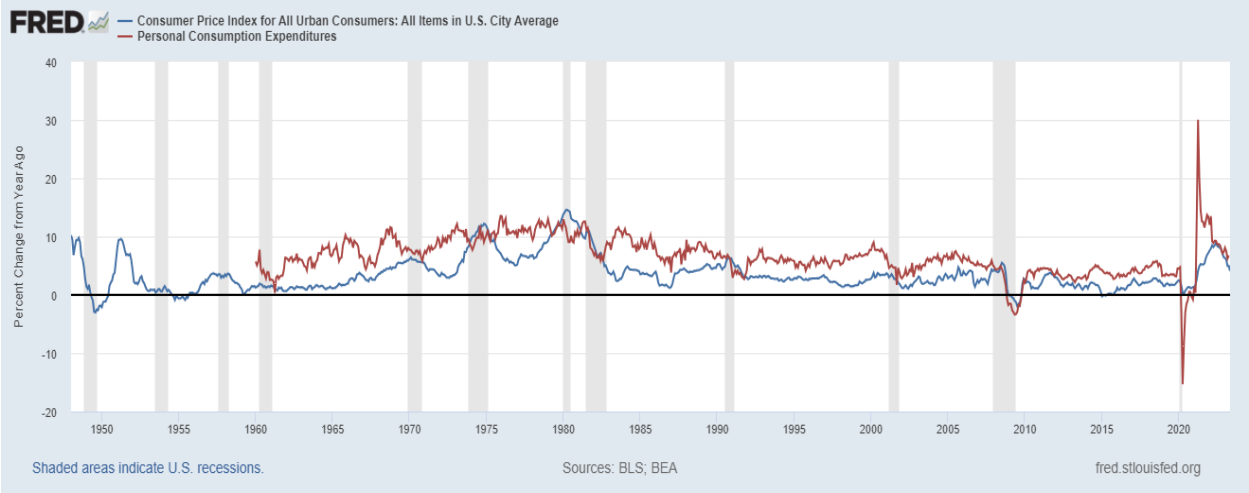


Figure 10: Inflation Rate per Truflation

If inflation is truly near 2.5%, that's a welcome sign.

But the battle is not over. In the 1970s, policymakers made the mistake of lowering interest rates too soon, and the US faced a double dose of high inflation. That's evident from the two peaks in the CPI around 1975 and 1980 in **Figure 9**. Inflation is finally going in the right direction. Let's hope policymakers can help keep the trend down and not repeat past mistakes.

A final word about inflation: A decreasing rate of inflation is great, but it doesn't change the fact that prices are permanently higher. A quick example: Suppose a widget costs $1,000. And suppose inflation was 5% in the first year, 8% in the second year, and 4% in the third year.

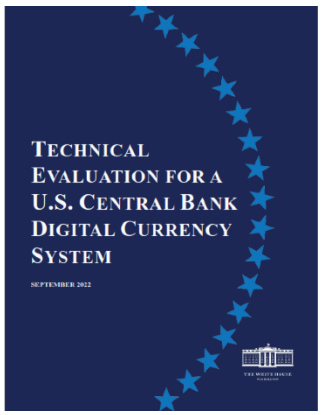
Year	Inflation Rate	Price
0		$1,000
1	5%	$1,050
2	8%	$1,134
3	4%	$1,179

It is evident that the rate of inflation increased from Year 1 to Year 2 (5% to 8%) and decreased from Year 2 to Year 3 (8% to 4%). And we cheer that the rate has decreased. But the price of the widget is permanently higher by 17.9%. That's not something to cheer. On a macro level, this is what faces the economy now. This is one reason why excess savings are being depleted quickly: folks are spending money on pricier goods.

The Digital Dollar

Over the last few months, we have heard a persistent rumor: the US Dollar ("USD") is going to be digitized. This is a nuanced, complex, and sometimes contentious issue that warrant a lengthy discussion. In the following pages, we simply seek to offer some summary context on this issue and a couple of observations.

The digital dollar debate picked up momentum in March 2022 when the Biden Administration issued Executive Order 14067 ("EO 14067") entitled "Executive Order on Ensuring Responsible Development of Digital Assets." (https://tinyurl.com/EO14067) EO 14067 effectively ordered the Office of Science and Technology Policy to explore the technical issues involved with creating and implementing a central bank digital currency ("CBDC"). To be clear, EO 14067 did **not** start the process of creating a CBDC.



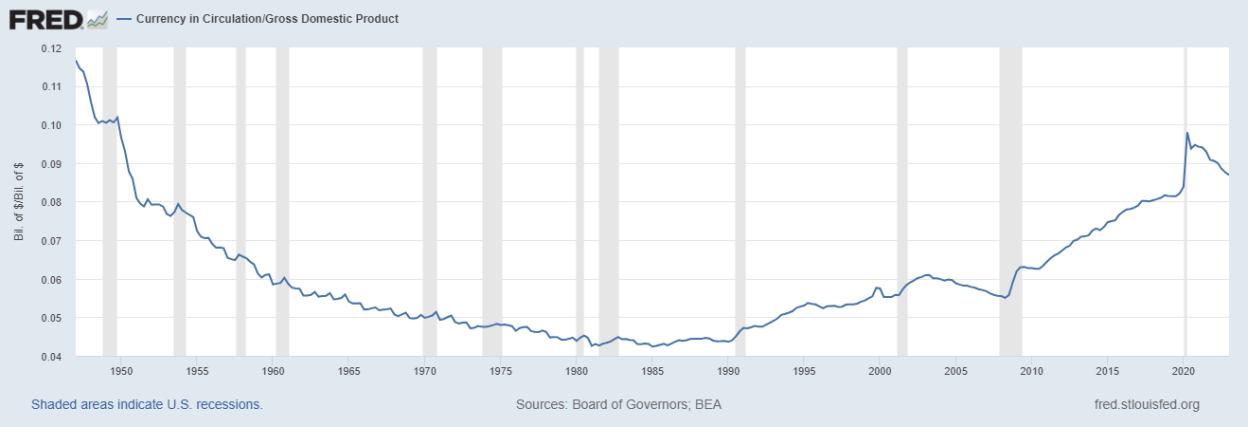
In September 2022, the Office of Science and Technology Policy published "Technical Evaluation for a U.S. Central Bank Digital Currency System." (https://tinyurl.com/USCBDC), its response to the mandate from EO 14067.

Before we get into the details, a little background is necessary. The USD is currently a fiat currency, which simply means it is a currency that is not backed by some commodity, for example, like gold. Instead, the currency is backed by the full faith and credit of the government. Fiat currency exists in both physical and digital forms. For example, your pay is likely directly deposited to your checking account as a digital transaction. If you then go to the bank, you can request a withdrawal in physical cash. In the U.S., fiat currency is issued by the Federal Reserve; the Fed physically prints cash bills and digitally "prints" electronic currency. This physical and electronic cash is transferred to banks, who then in turn distribute it to everyone else.

A central bank digital currency, or CBDC, is essentially a fiat currency without the physical part. With a CBDC, all US Dollars exist only in electronic form. Physical cash is no longer used.

This may sound radical. But consider a few observations. First, with the exception of the extremely accommodative Fed policies in the last 20 years, currency as a percentage of gross domestic product has deceased (**Figure 11**). Put simply, as our economy grew, the amount of physical dollars in circulation shrunk relative to the economy. This is due to more transactions being conducted in electronic formats, therefore obviating the need for physical currency. So decreasing use of physical cash is not a new or foreign concept.

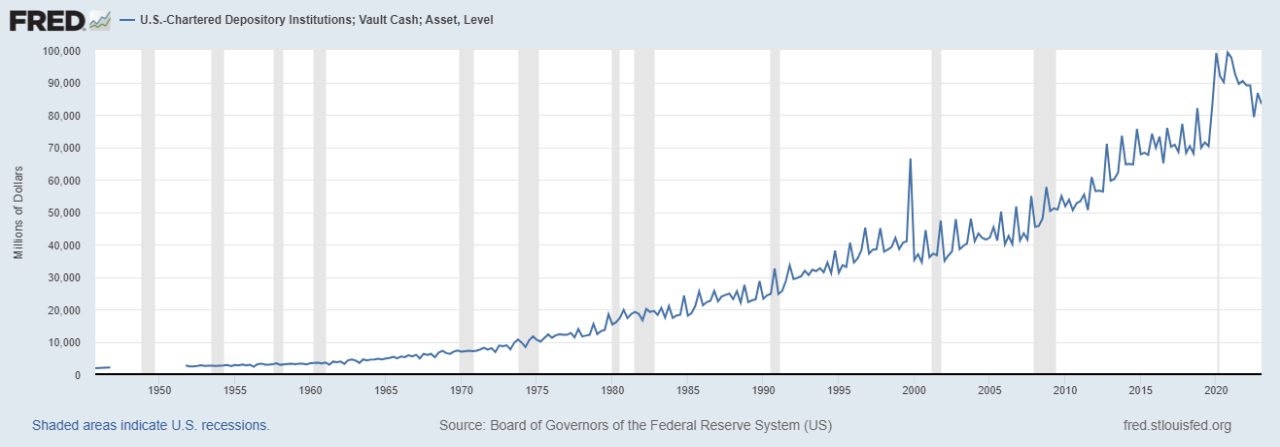
Figure 11: Currency Relative to GDP



Second, consider your personal finances today. An increasing percentage of the population banks almost exclusively electronically. If you work, do you have direct deposit set up for your pay? If you are retired, are your pension and Social Security payments directly deposited? Have you used Venmo or Zelle or CashApp or any of the numerous other electronic payment apps? Do you log-on to your bank accounts through an app on your phone or an internet browser on your computer? These are all representations and manipulations of electronic currency. So working with primarily electronic currency is at least a regular experience for many people.

Third, imagine you walk into a bank branch and demand a cash withdrawal equal to your entire savings or checking balance. Unless you have a relatively small balance, chances are the bank does not have physical cash on hand to meet that demand. Consider that there is currently $83.25 billion of physical cash in bank vaults (**Figure 12**). Per the US Census Bureau, there are currently 335,000,000 people in the

Figure 12: Cash in Bank Vaults



United States[12]. Of that amount, roughly 77% are age 18 or older[13]. So there are approximately 258,000,000 people over the age of 18. If banks hold $83.25 billion in their vaults, there is about $322 per person in banks' vaults. Chances are you cannot saunter into your local branch, ask for $5,000 cash, and walk out a few minutes later. Yes, if you request $5,000 cash, the bank has to honor your request. But no, it doesn't need to honor it immediately. It may ask for a few days to get the cash. Why? Because, frankly, banks do not keep large amounts of cash on hand for security reasons. So, even in the case when you want physical currency, it may not be easily and immediately accessible.

It is apparent that much of our current fiat currency is already in digitized, or electronic, form. So is a CBDC even a necessary evolution? That is certainly up for debate. To help with that argument, we present a few pros and cons regarding the implementation of a CBDC.

Arguments for the creation of a CBDC:

- Ease of transactions – With a CBDC, the Federal Reserve becomes the bank for everyone and everything - all people, companies, and organizations. Conceptually, everyone would have an account with the Fed. As such, money transfers would be frictionless and instantaneous. Instead of paying for a wire transfer for your home settlement and ensuring the funds are available at the time of settlement, you can instantly transfer funds at the settlement table and verify the transaction in real time. Instead of linking your checking account to Venmo, sending money through Venmo to your friend, and your friend transferring that money from Venmo her checking account, you simply send money right from your Fed account to your friend's Fed account. Easy.
- Security – Security and CBDCs cuts both ways, as both a pro and a con. As a pro, a CBDC would essentially eliminate counterfeit money and sham transactions. The reason why lies in the underlying bookkeeping for a CBDC: blockchain. In simple terms, blockchain would allow the Fed to track every dollar ever created; it would know where every dollar current is, where every dollar used to be, and who held those dollars in the past and present. This has obvious privacy concerns (as noted below), but it also means that it would be virtually impossible to create counterfeit money. Blockchain works in such a way that modifying the ledger of transactions is, at least practically as of this writing, impossible. Furthermore, since all currency is electronic, you could never lose or accidentally destroy physical currency. Finally, because each transaction is recorded, it may serve to curtail or eliminate the flow of monies into illicit and illegal activities.

Arguments against the creation of a CBDC:

- Privacy – The overwhelming concern of CBDC is privacy. Since one central entity, the Federal Reserve, controls the currency and maintains the ledger, it has access to everyone's financial activity. It is not a stretch of the imagination to see how such data could be abused. Of course, the government has access to much of our electronic transactional data now via credit card and debit card ledgers; however, such access is only granted through the proper legal channels when the court deems it necessary. With a CBDC, there is no such legal firewall.
- Security – Centralizing the currency ledger with the Fed would require massive a massive security apparatus to prevent unwanted access. If a rogue, unauthorized actor hacked into the ledger, it would have access to everyone's money. This is true of the current system as well. The

[12] https://www.census.gov/popclock/

[13] https://www.census.gov/library/visualizations/interactive/adult-and-under-the-age-of-18-populations-2020-census.html

difference is that a hacker gaining access to Santander, for example, only sees Santander clients. A hacker into the Fed sees everyone.

- Lack of intermediaries – Even if the privacy and security hurdles can be surmounted, the disposition of financial intermediaries may be the critical sticking point of CBDC. In the CBDC model, only the Fed is theoretically needed to control currency. However, in today's world of fiat currency, the Fed "creates" money and then issues it to banks and credit unions – financial intermediaries – for dissemination to the masses. What role would banks and credit unions have in the new CBDC world? Clearly, an entire industry in our economy cannot simply be put out to dry. Functions like lending and cash management are necessary activities undertaken by banks to lubricate the wheel of economic activity. It is doubtful the Fed wants to undertake these functions, yet alone be responsible for the erosion of banks and credit unions.

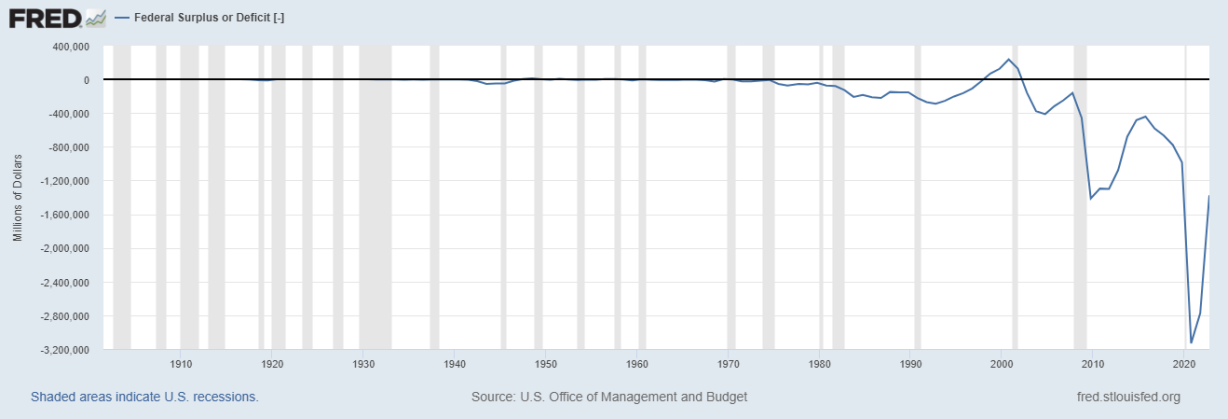
We touched a just a few of the more pronounced aspects of digital currency. Instead of being something to fear, a healthy debate should be fostered over the need for and implementation of a CBDC.

The Debt Ceiling

In May, the news cycle was filled with endless stories of the U.S. debt ceiling debate. To understand the debt ceiling, it helps to have some context into government finances.

Like all persons and entities, the government needs to pay its bills. And it needs money to do so. The problem in the U.S. is that it spends more than it brings in. In other words, it's constantly running a deficit. In fact, the government has not had a surplus since the late 1990s (**Figure 13**).

Figure 13: Federal Government Surplus/Deficit



The math is simple. Look at 2021, for example. The deficit was $3,200,000,000,000. Your eyes are not deceiving you! The deficit was ***$3.2 trillion dollars***. The government spent $3.2 trillion more than it made.

How is this possible? Because the government borrows to cover the deficit. If you have bills of $200 and income of $150, you'd need to borrow $50 to cover the difference. The same concept applies to the government.

Congress controls how much the government can borrow. This control is via the debt ceiling. Congress essentially caps how much total debt the government can have. For example, if the debt ceiling is $30 trillion, total outstanding debt cannot exceed that figure.

For example, suppose the government needs to borrow $1 trillion to cover its deficit. And supposed the current debt outstanding is $30 trillion and the debt ceiling is $30.5 trillion. The government cannot borrow the full $1 trillion because it is only authorized to borrow another $500 billion.

This is the problem the government ran into this past May. And no matter what side of the aisle you are on, it's a huge problem. If the government cannot borrow more (and thus pay its bills), there are a ton of knock-on effects, like:

- Government employees get furloughed
- Mail service stops
- The government fails to pay interest on its debt

These are not trivial problems. For example, our debt is considered the world's safest asset. Why? Because we have a strong economy (at least relative to our peers) and we have always paid our debts. Money flows into debt from all over world because investors feel safe holding U.S. debt. If we upset this reputation, we might not be able to borrow as much as we need to cover our deficit. Or we might be able to borrow what we need, but we would need to pay a higher interest rate in order to so.

In any case, Congress did what it does best: wait to the last minute to get some resolution. On May 31, the House passed a debt ceiling bill, and on June 1, the Senate affirmed it.

There are two issues we would like to highlight with the new debt agreement:

- The debt limit was not raised. It was suspended. In past debt ceiling deals, Congress increased the max amount of debt that can be outstanding. Once the max was hit, Congress approved another increase to the ceiling. However, this time around, Congress did not establish a ceiling. It simply suspended the ceiling. Put another way, the government could theoretically borrow an unlimited amount of money. We will come back to this in a minute.
- The debt ceiling is suspended until January 1, 2025. That means we will once again go through the game of Congressional "chicken" at the end of 2024. But think about what is happening around that same time. We have a Presidential election in November 2024. As such, we could possibly have a lame-duck President and a lame-duck House and/or Senate while the next debt debate is taking place. Would those parties be motivated to resolve the debt ceiling debate knowing that they were not re-elected?

Back to the debt ceiling suspension. Imagine a scenario where the economy falls into recession in 2023 or 2024. Undoubtedly, the stock market would decrease in value. Millions of people would lose their jobs. The government may be inclined to intervene, much like it did in 2020 during COVID. Intervention typically involved some form of stimulus – or more bluntly, borrowing hordes of money to give fiscal benefits to individuals and companies. And the government could do this with impunity knowing that it has no debt ceiling to worry about.

Our massive national debt is a massive problem.

Conclusion

At its essence, investing is all about risk vs. reward. We have laid out an argument why the risk and reward trade-off is skewed heavily toward the risk side right now. This is not to say that the stock market cannot push higher. But it is to say that, based on current valuations, the stock market needs to fall quite a long way to get back to historical norms. Thus, if it does push higher, that's simply further the market must fall to get back to fair value. Unless you hold the crystal ball, you may want tread cautiously and avoid timing the market.

Finally, it's easy to say that the market rally off the October 2022 low marks a new bull market. We leave you with this chart (**Figure 14**)[14]. In past recessions, it's perfectly normal to see multiple, massive rallies inside of a downward trending market. Will today's stock market rhyme with history?

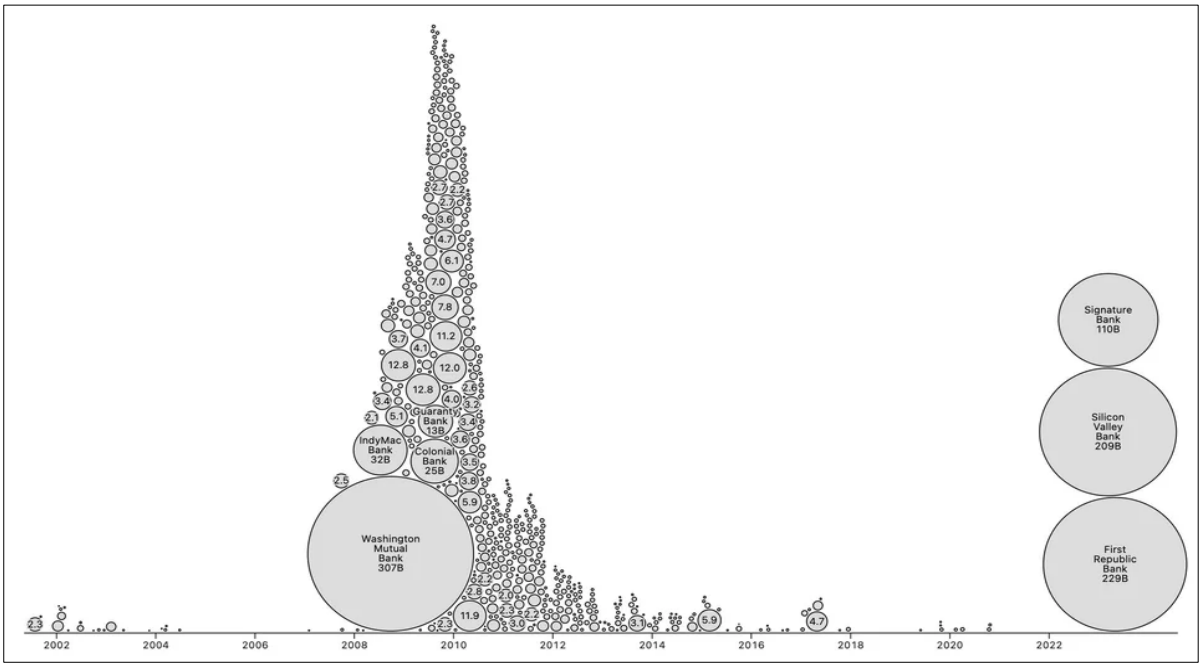
Figure 14: Bear Market Rallies During Dotcom Bubble

[14] Source: https://twitter.com/hussmanjp/status/1666451308285509633

Some Interesting Infographics to Wrap it Up

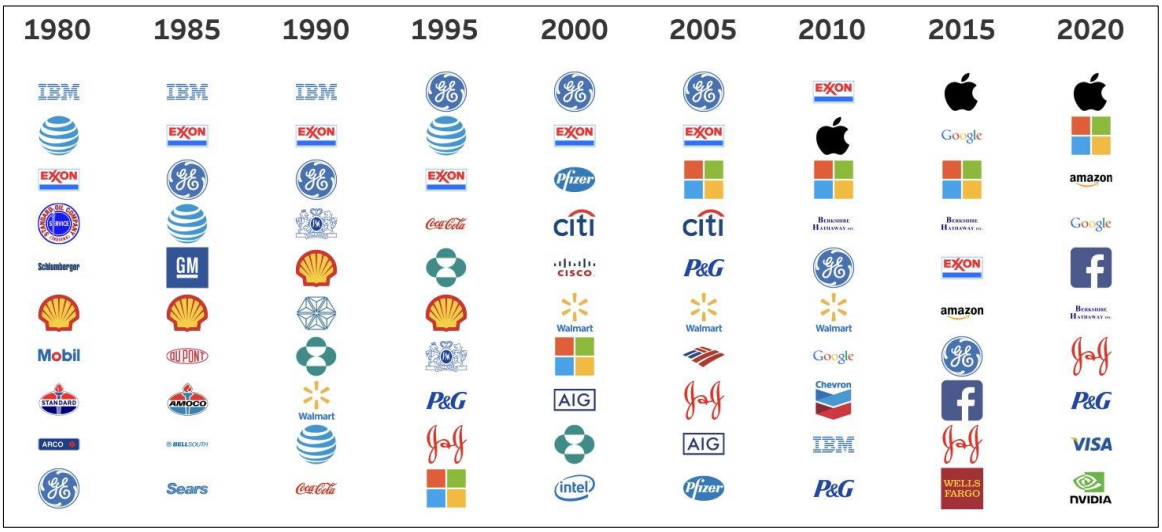
Back in March, Silicon Valley Bank failed. Shortly after, two more banks – Signature Bank and First Republic Bank – failed. These three bank failures, all within a few weeks of each other, where bigger than all but one bank failure in the history of the United States (**Figure 15**)[15].

Figure 15: Bank Failures Since 2000



It's easy to look at today's biggest companies and say, "These guys will be around forever." But time has a funny way of reshaping the narrative. Here's a graphic showing the worlds largest companies over the last few decades (**Figure 16**)[16].

Figure 16: Largest Companies in the S&P 500 Over Time



[15] Source: https://twitter.com/Mayhem4Markets/status/1653606476793933825
[16] Source: https://twitter.com/Maverick_Equity/status/1674460350488490001

For those chattering about the demise of the U.S. dollar, here's two graphics to whet your appetite. The first shows the global breakdown of currency reserves (**Figure 17**)[17]. Foreign exchange reserves is just a fancy way of saying how much cash County A holds that comes from Country B. For example, if Germany holds U.S. dollars ("USD"), Germany has foreign exchange reserves of USD. Clearly, USD reserves dominate this market.

The second graphic is even more interesting. When a country borrows money, it can borrow in its own currency, or it can borrow in a foreign currency. As it turns out, it is very popular to borrow in USD. This chart shows the total amount of global debt outstanding and how much of the debt is denominated in specific currencies (**Figure 18**)[18]. It is relatively obviously that, if you borrow in USD, you must repay in USD. For example, if Germany issues debt denominated in USD, it must repay that debt in USD. Therefore, it is crucial that countries maintain ample reserves of USD.

Figure 17: Foreign Currency Reserves

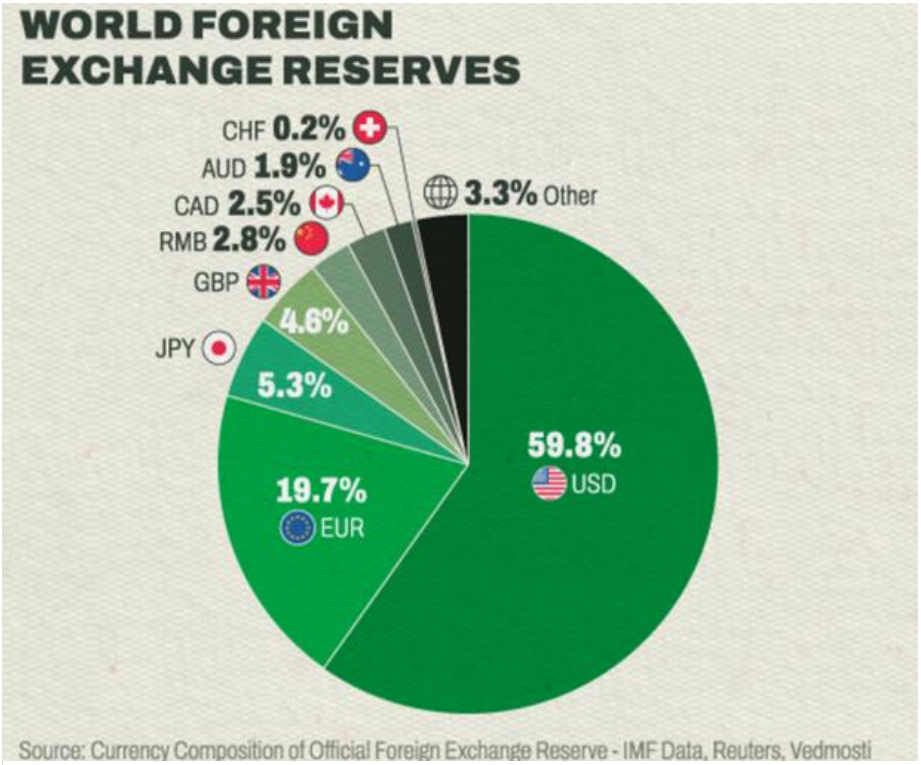
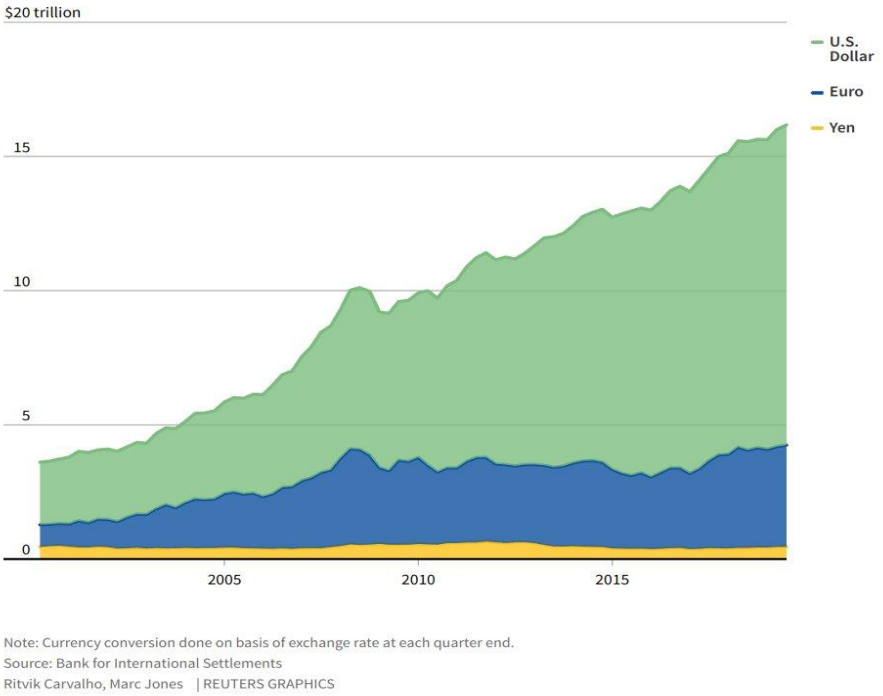


Figure 18: Global Foreign Currency Borrowing



[17] Source: https://twitter.com/Mayhem4Markets/status/1641255832829538307
[18] Source: https://twitter.com/Mayhem4Markets/status/1641257017728811010

Lastly, we came across this intriguing article in the Wall Street Journal. Apparently, scholars have devised a methodology for identifying earning manipulation in reports filed by public companies to the SEC. And it turns out that increased instances of earnings manipulation in these reports has some correlation with recessions (**Figure 19**).

Figure 19: Earnings Manipulation over Time as Measured by M-Score