

Introduction

Happy New Year! We hope your 2023 is filled with lots of cheer, time with family and friends, good health, and less anxiety. No matter how you celebrated the Holidays this year, it probably cost you more than in past years. Thank you, inflation. There may be some good news on that front, however, as we explore some key areas where prices are actually falling. But are prices falling because they were simply too high, or are they falling because the economy is sliding into recession? Maybe both. One thing is certain: the markets remain very difficult to navigate, maybe more so than at any time in the last few decades. We explore all these topics, and more, in the pages that follow. 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

This past year was a truly remarkable year. Remarkable in the sense that no living human being ever witnessed the confluence of so many narratives all at once. War. Inflation. Higher interest rates. Even higher stocks valuations. Etcetera, etcetera, etc. True, various combinations of these nuisances have manifested before. But never all at once. Until 2022.

Across the investments landscape, the various benchmark indices reflected the realities of this year with poignancy.

	2022 Return ⁸	3-Yr Avg Return ⁸	5-Yr Avg Return ⁸	10-Yr Avg Return ⁸
US Large Companies (Broad) ¹	-18.11%	7.65%	9.42%	12.56%
US Large Companies (Tech) ²	-32.38%	8.67%	12.35%	16.44%
US Mid-Size Companies ³	-13.06%	7.22%	6.70%	10.77%
US Small Companies ⁴	-20.44%	3.10%	4.12%	9.01%
International Companies ⁵	-14.01%	1.34%	2.03%	5.16%
Bonds ⁶	-13.01%	-2.71%	0.02%	1.06%
Commodities ⁷	16.09%	12.64%	6.44%	-1.28%

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.

We will spend time unpacking 2022 and prognosticating about 2023 in the pages that follow. First, however, we would like to reflect on the value of active management in portfolio allocation. Put more importantly, shifting between different types of investments during different time periods can be incredibly powerful.

Case in point: Throughout 2021 and into 2022, both our semi-annual commentaries and our client discussions focused on a few keys elements, two of which were adding bonds as a diversifier and reducing exposure to technology stocks.

Swapping tech exposure (i.e. NASDAQ 100) for bonds yielded over 19% of outperformance [-13.01% for bonds vs -32.38% NASDAQ] in 2022. We would hardly declare -13.01% a victory; however, using bonds to diversify the risk posed by tech was a great trade in 2022.

Equally apropos to the active management argument is the focus on time horizon. An investor focusing on the 10-year returns would roll his eyes at the notion of investing in bonds. But ask that investor if he would prefer to lose 13% or 32%, it's safe to say we know the answer. We have argued in the past and we continue to maintain that timing the market is terribly difficult and oftentimes humbling. We are not advocating switching completely from one investment to another at a point in time (e.g. market timing). We are advocating for assessing all the available evidence and making educated decisions that are biased towards certain investments at certain times. That is why we have worked to reduce (but not eliminate) exposure to stocks, particularly technology stocks, while increasing exposure to bonds.

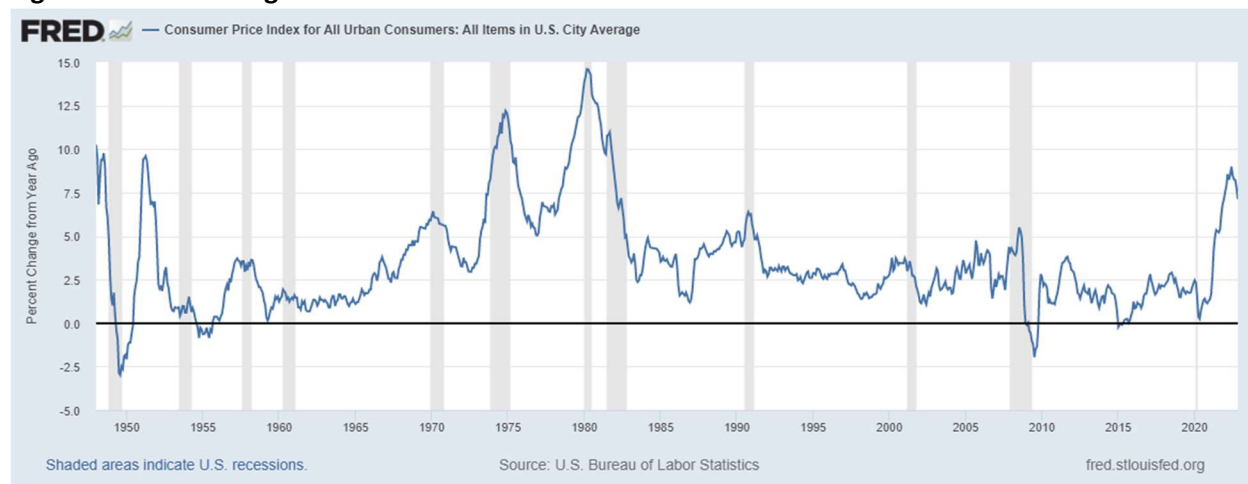
Before we dive deeper into 2022, we would encourage you to revisit the discussion about past recessions in our [June 30, 2022 commentary](#). Without belaboring the point, the Dotcom recession from 2000-2002 and the Global Financial Crisis ("GFC") in 2008-2008 were the two worst recession since the Great Depression. And guess what: A diversified investor who remained invested during the entirety of Dotcom and the GFC recession made all his money back very quickly.

- During Dotcom, the investor was whole after four quick years.
- During GFC, it was an even swifter three years to get whole.

Inflation

Inflation has been, and may very well continue to be, the 800 lb. gorilla in the room. In the June 30 commentary, we argued that the rate of inflation may start coming down. And it has. Per the Federal Reserve Bank of St. Louis FRED database, inflation increased at 7.12% year-over-year (YoY) as of November 2022. This is down from 8.99% in June 2022.

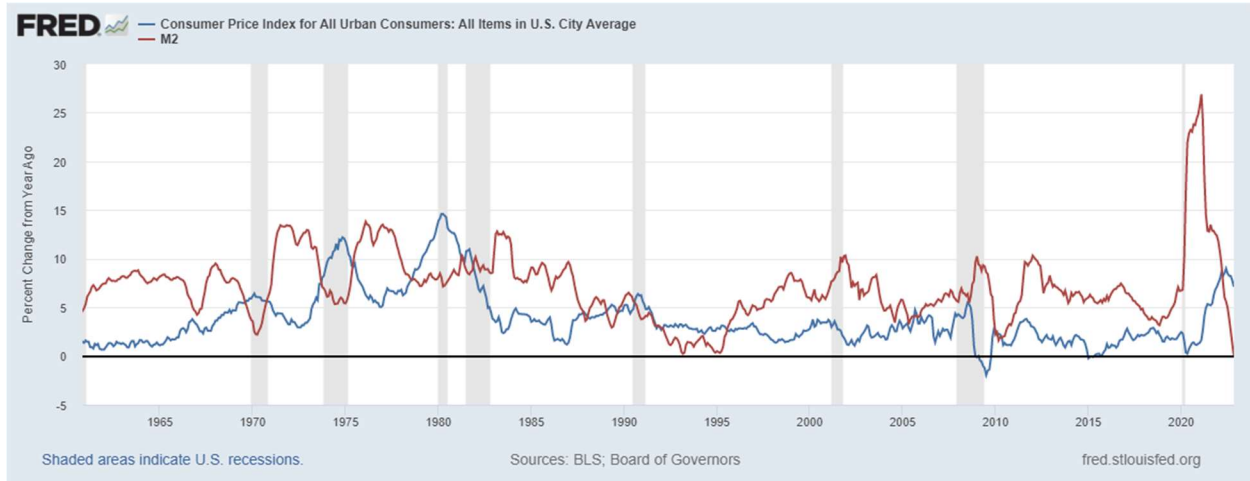
Figure 1: YoY % Change in CPI



Paying \$107 today for something that cost \$100 last year is hardly a reason to celebrate. But it is important to find the silver linings: the rate of change is decreasing. And it may continue to do so.

Let's use a very simple analogy: Assume the economy has 100 widgets and \$100. Each widget is worth \$1.00. Now assume the economy has 100 widgets and \$200. What is each widget worth? You guessed it: \$2.00! Is the widget inherently more valuable in the \$200 economy? No, it's still made from the same materials and provides the same function. The only difference is the amount of dollars chasing after it. That's inflation¹.

Figure 2: YoY % Change in CPI (Blue) and M2 (Red)



In a microcosm, this is essentially what happened in the last few years. During Covid, tons of dollars were “printed” in the form of stimulus checks, thus drastically increasing the amount of money in the economy. Now, as the Federal Reserve (the “Fed”) raises interest rates, money is being withdrawn from the economy. The **red** line, M2 money supply, in **Figure 2** shows this massive increase and subsequent massive decrease. M2 is essentially the value of all savings accounts, checking accounts, money market accounts, and CDs. Look at the massive spike during the onset of Covid followed by the massive decrease recently. Although not pictured, the most recent M2 figure is negative (the first time it's been negative in 60 years!). There were lots more dollars chasing widgets. Now there are lots less.

Elsewhere on the inflation front, let's look at the components of inflation, courtesy of the folks over at [Advisor Perspectives](#). Inflation is broken into eight components. Critically, energy is not one of the eight; instead, it's baked into the Housing (weighted @ 42.4%) and Transportation (weighted @ 18.2%) components.

¹ We concede that this definition of inflation is a simplification of a much more complex, nuanced system of inputs and outputs. However, for purposes of our discussion, this rudimentary example will suffice.

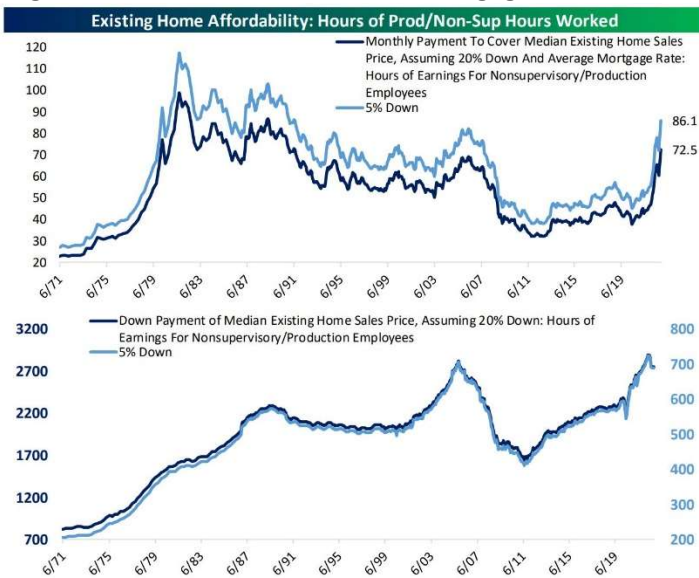
Figure 3: YoY % Change in CPI by Components

Year-Over-Year CPI Rate of Change (Not Seasonally Adjusted)						
Name and Weight	Jun	Jul	Aug	Sep	Oct	Nov
Food & Beverages (14.3%)	10.02%	10.50%	10.91%	10.78%	10.57%	10.31%
Housing (42.4%)	7.33%	7.36%	7.83%	8.03%	7.89%	7.83%
Apparel (2.5%)	5.23%	5.13%	5.06%	5.46%	4.09%	3.55%
Transportation (18.2%)	19.75%	16.37%	13.43%	12.58%	11.18%	7.79%
Medical Care (8.5%)	4.54%	4.83%	5.37%	6.00%	5.02%	4.15%
Recreation (5.1%)	4.63%	4.38%	4.11%	4.07%	4.08%	4.74%
Education & Communication (6.4%)	0.82%	0.54%	0.47%	0.20%	0.01%	0.67%
Other Goods & Services (2.7%)	6.67%	6.31%	6.65%	6.89%	6.49%	7.01%
Energy	41.62%	32.93%	23.81%	19.79%	17.63%	13.07%
Headline CPI	9.06%	8.52%	8.26%	8.20%	7.75%	7.11%
Core CPI	5.92%	5.91%	6.32%	6.63%	6.28%	5.96%

Note: Energy is sub-components of Transportation & Housing. It is weighted at 8.0% of CPI, with gasoline at 3.9%.

Housing is by far-and-away the largest component of inflation. And by some measures, housing has never been more expensive than it is now. Bespoke Investment Group (“BIG”) provides some insight into this lack of affordability with an interesting historical comparison (Figure 4). The top chart shows

Figure 4: Hours of Work to Cover Mortgage



Note: Case-Shiller prior to January 1999; median existing home price (SA) thereafter.

the number of hours the typical employee needs to work to cover his mortgage payment, assuming 20% down (dark blue) or 5% down (light blue). For example, after putting 20% down, the average person needs to work 72.5 hours to pay his monthly mortgage. So even if – and that’s a big if – he has 20% to put down, it takes him half-a-month’s labor to make his monthly mortgage payment. That leaves only the other half of the month for all other expenses! That’s the most unaffordable monthly payment since 1991.

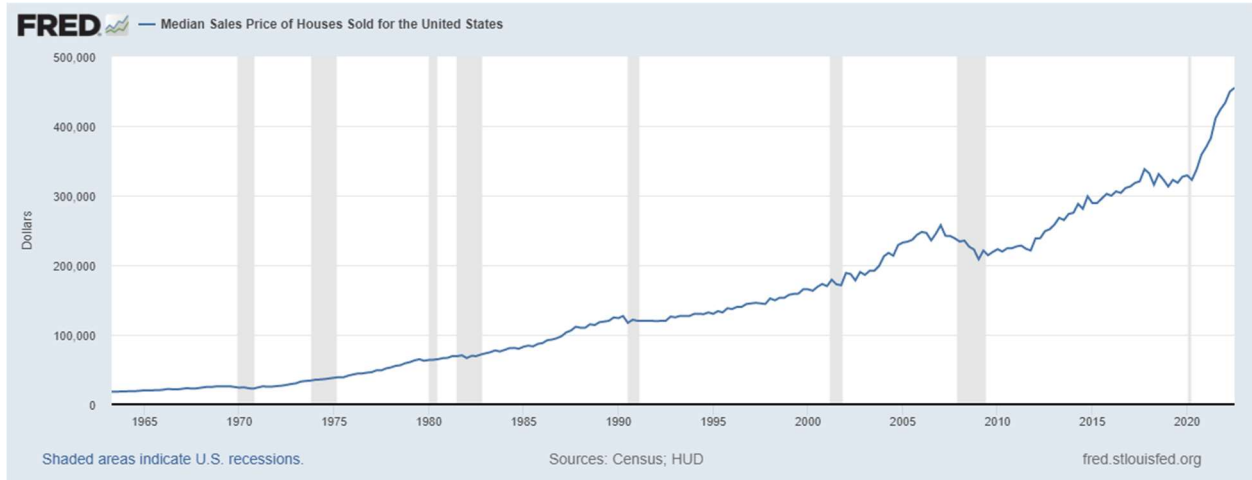
But, to even get to that point, he needs to make a down payment. Enter the bottom chart. It would take nearly 2,700 hours of work to save the equivalent of a

20% down payment (dark blue, left scale). Obviously, a 5% down payment would be a quarter of that, or almost 700 hours (light blue, right scale). Obviously, you can’t save 100% of every dollar you make. So practically, it would take way more than 2,700 hours to save that 20%. That’s the most unaffordable EVER!

How did we get here? That can be debated, but Covid likely played a significant role. With more people working from home, the need to move for work has dwindled. Less existing homes were put on the market. Meanwhile, the U.S. has been underbuilding new single-family homes for some time now, so new supply wasn’t enough to offset dwindling existing supply. Plus, cash-flush real estate investors

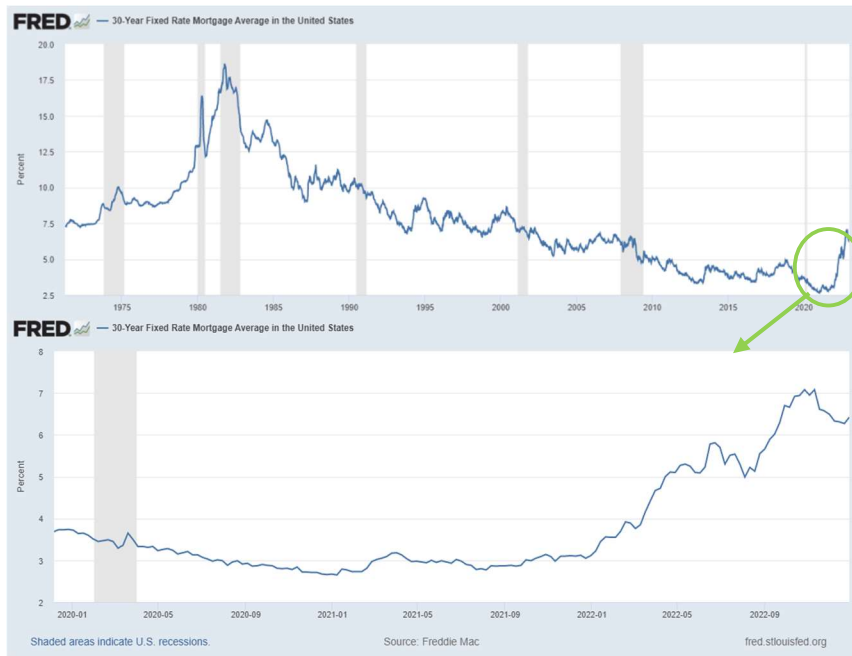
bought more and more of the single-family homes actually listed for sale. All these factors served to push housing prices ever higher. Look at how sharp the rise in prices has been since Covid started (Figure 5).

Figure 5: Median Sales Price of Home



The party may be coming to an end. And interest rates are the culprit. As the Fed has started to raise interest rates, the 30-year mortgage rate has skyrocketed (Figure 6). The charts in Figure 6 show just how fast and how much rates have risen.

Figure 6: 30-Year Mortgage Rates



The top chart shows the 30-year mortgage rate going back to 1970. The bottom chart zooms in on the 30-year rate in just the last three years. Rates went from as low as 2.65% in 2021 up to 7.25% earlier this year. We even heard of instances where buyers got rates lower than 2.65% back in 2021. That's nuts!

But here is where the rooster comes home to roost. If rates rise that much, it necessarily means a few things: (1) either prices need to fall or (2) people need to make more money. Why?

Assume you are an existing homeowner. You bought your house 15 years ago when the median price was \$252,000 and mortgage rates were at 3.5%. You put 20% down. Your monthly payment is **\$905**. Today, you have around \$155,000 remaining on your mortgage. Older homes tend not to appreciate commensurate with the current median home price. In other words, your home is worth less than the

current median sales price of 455,000 from **Figure 5**. Let's say your home appreciated by the long-run average of 3.5%/yr, making your home worth \$355,000 today. Your realtor suggests you get aggressive, and maybe you get \$375,000 for it. You walk away with \$193,750 after 6% realtor commission, 1% closing costs, and mortgage repayment.

You need to live somewhere, so you upgrade to a newer home. And since it is newer, it's price is much closer to the current median sales price, around \$450,000. You make an offer of \$450,000, and it is accepted. After \$20,000 closing costs, you have \$173,750 down (from sale of old home). Your new mortgage is \$276,250 with a rate of 7.00%. Your new payment is **\$1,780**. That's double your old payment.

We can debate the selling and buying prices and the exact interest rates, but the math only changes on the fringes. What doesn't change is that your new payment will be substantially higher than your old payment. And that's if you had the luxury of a home to sell.

If you're a new buyer (no existing home to sell), we point you back to **Figure 4**, where you're not allowed to go home and see your family and watch your favorite Netflix show at night because you need to work a gazillion hours just to afford your first house.

Speaking of inflation, Netflix and its price hikes! And now it won't let us share passwords with friends. Sheesh.

The path of least resistance to housing prices is down.

Remember, our comment about real estate investors gobbling up single-family homes? Look at the massive flows into single-family residential homes from investors since Covid. However, as rates have

Figure 7: Investor Purchases of Real Estate



started to rise and prices were bit up too quickly, investor activity has stalled. Those buyers are already leaving the market. First-time homebuyers will likely stay on the sidelines, too, until rates subside and prices fall. And existing homeowners will be loath to trade-up for a newer home if it doubles their monthly payments. Besides, if no one is buying right now and when that existing homeowner does want to trade-up, who will buy his old house?

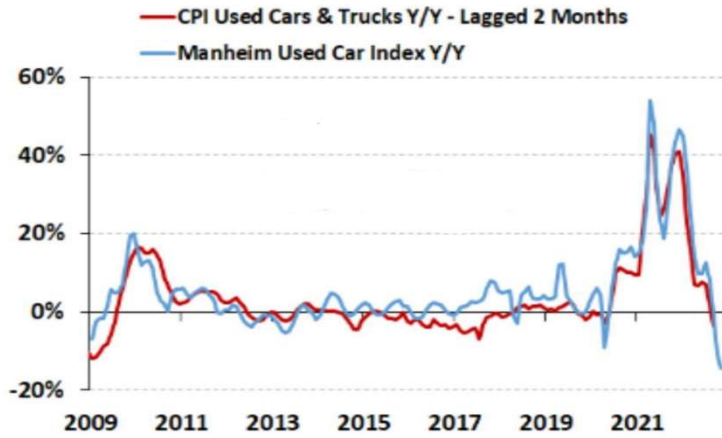
A decrease in housing prices would be a welcome development for overall inflation.

At the risk of belaboring the inflation argument, a few more quick comments.

The second largest CPI component is transportation, with a weight of 18.2%. Almost half of transportation inflation comes from new and used car prices. Those prices are starting to rollover.

Figure 8: Used Car Prices

Manheim Used Vehicle Value Index



Source: Factset; Manheim Used Vehicle Value Index; CPI Used Cars & Trucks; 1/1/2009 to 11/30/2022 @KennethLFisher

Figure 8 shows the massive surge in used car prices in the last year. As far and fast as prices rose in the last few years is as far and fast as prices are declining now. The used car market is seeing outright deflation.

The jury is still out on the new car market. But as the economy slips into recession (decreasing demand), interest rates move higher (decreasing demand), and manufacturers normalize production after Covid supply crunches (increasing supply), we can make an argument that new car prices will rollover as well. Anecdotally, we did some quick web searching, and we found a great social media post courtesy of @GuyDealership on Twitter (If you

are into cars, there is a great Twitter handle to follow) highlighting some recent price drops in a normally resilient car market: new pickup trucks.

Figure 9: Selected Decreases in New Truck Prices

The image shows three car listings from Ford of Montebello. Each listing includes a photo of the truck, its model, price, mileage, and estimated monthly payment. The first listing is a 2022 Ford Maverick XL with a price of \$29,988, 28 miles, and a price drop of \$8,000. The second listing is a 2022 Ford Maverick XLT with a price of \$30,993, 13,065 miles, and a price drop of \$2,999. The third listing is a 2022 Ford Maverick XL with a price of \$31,500, 3,135 miles, and a price drop of \$3,499. Each listing also features a 'Home Delivery' button and a 'Virtual Appointments' button.

Last comment on inflation: Energy prices gave us whiplash in 2022. Here's a chart of Brent crude, WTI crude, and natural gas prices in 2022. Across the board, prices were up 60-65% from January 2022 through June 2022. Prices then collapsed into the end of the year. The net price change for all three commodities was 0% for the year!

Figure 10: 2022 Brent Crude, WTI Crude, and Nat Gas Price Changes



The largest components of inflation – housing and transportation – are not simply showing signs of slowing inflation. They are suggesting that deflation may be ahead. That would be a welcome relief to everyone.

Bonds

By most measures, bonds had their worst year ever. That is not an exaggeration. But the amazing thing is this: Even with their worst annual performance on record, bonds still outperformed the primary stock index, the S&P 500, by 5.00%. And rest assured, last year wasn't even close to the worse year for stocks. Let that sink in: Despite the worst year on record for bonds, bonds still beat stocks. In a twisted way, diversification worked in 2022.

We like to focus on an often overlooked but pivotal fact of bonds. Over time, almost all the total return from bonds comes from yield. We'll come back to this in a second.

First, recall the total return for any investment is Price Return + Income Return. For example, assume you buy Stock ABC for \$10. It grows to \$10.50 and pays a dividend of \$0.25. The price return is \$0.50, and the income return is \$0.25. Thus, the total return is \$0.75, representing a return of 7.5% [$\$0.75 / \10.00] on your initial investment. In this example, price return accounted for 2/3 of the total return, and income return accounted for 1/3 of the total return.

Here is a chart of the Bloomberg Barclays US Agg Bond TR Index, the main bond index, going back to 1980. The “TR” stands for total return. Focus on the annualized total return over that time period: 6.83%. We boxed the figure in red for emphasis. This chart and the next two are courtesy of Morningstar.

Figure 11: Bond Total Return Chart

Hypothetical Illustration for Bloomberg US Agg Bond TR USD (USD)(IDX)

01-03-1980 to 12-31-2022



The neat part of this index is that Morningstar can break down the total return chart into its two components, price return (shown as “PR” in following charts) and income return (shown as “IR”).

Spoiler alert: Price return does not matter. The annualized PR component is only 0.40% (Figure 12). The IR component is a massive 6.56% (Figure 13). The sum of PR + IR = 6.96%; the approximates the actual total return as shown by Figure 11 (rounding in calculations cause the small difference).

The critical takeaway is that almost all of the total return from bonds comes from income. In the case of bonds, income is the periodic interest payments from bonds. To some extent, this observation is intuitive considering that bonds mature to par value, or \$1,000 bond. So whether you buy a bond for \$1,100 or \$900, it’s going to mature to \$1,000. Buy enough bonds inside your portfolio, the prices changes cancel each other out, leaving yield as the primary driver of returns.

As an aside, this concept of income being the primary total return driver does not apply to stocks. Stocks are highly dependent on price return.

The lesson is that patience truly is a virtue in the bond world. Temporary variations in prices are washed out in time, leaving yield as the driver.

Figure 12: Bond Price Return Chart
Hypothetical Illustration for Bloomberg US Agg Bond PR USD (USD)(IDX)

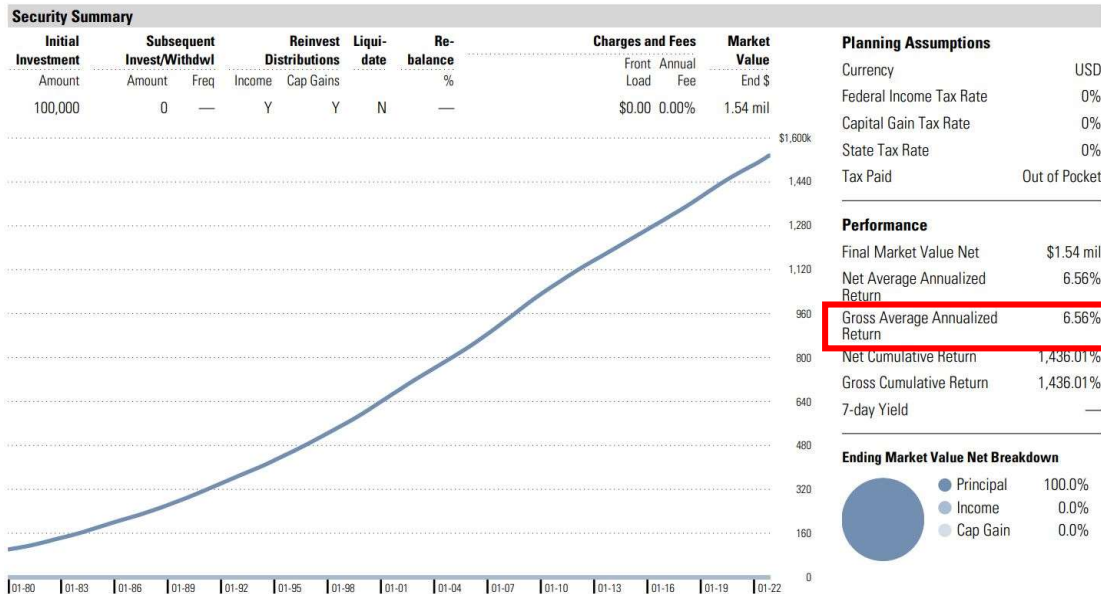
01-03-1980 to 12-31-2022



Figure 13: Bond Income Return Chart

Hypothetical Illustration for Bloomberg US Agg Bond IR USD (USD)(IDX)

01-03-1980 to 12-31-2022



If you're not patient, there's hope for you. Bond prices suffered in 2022 because interest rates rose. And rates rose because inflation was surging. If inflation in fact does moderate, the Fed will eventually stop raising rates. It may even begin to lower rates. And if and when that happens (see "Stocks" next for more on this), bond prices may have the opposite effect of 2022: a surge in prices.

Stocks

We saved the best for last!

By all accounts, the bear market in stocks has been pretty “textbook” so far. A downtrend is simply a series of lower highs (red circles) and lower lows (green circles). And the price action on the S&P 500 in 2022 fits this perfectly. To boot, the green line drawn across the higher lows (red circles) is called resistance. Put another way, every time the stock market bumped up against that line, it started to fall shortly thereafter. That line acted as resistance. Until we see stocks break through the resistance and form a higher high and higher low, we won't be out of the woods.

Figure 14: S&P 500 Chart for 2022



The market vicissitudes are almost too clinical. Compare the chart above to the chart below.

Figure 15: CNN Fear and Greed Index

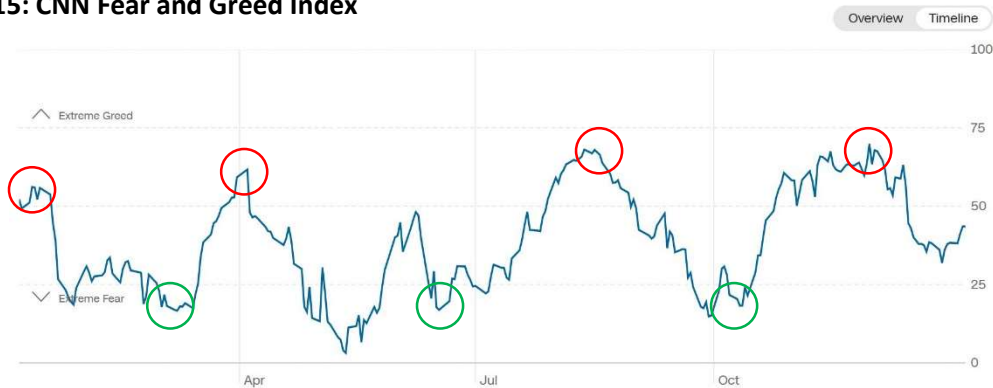
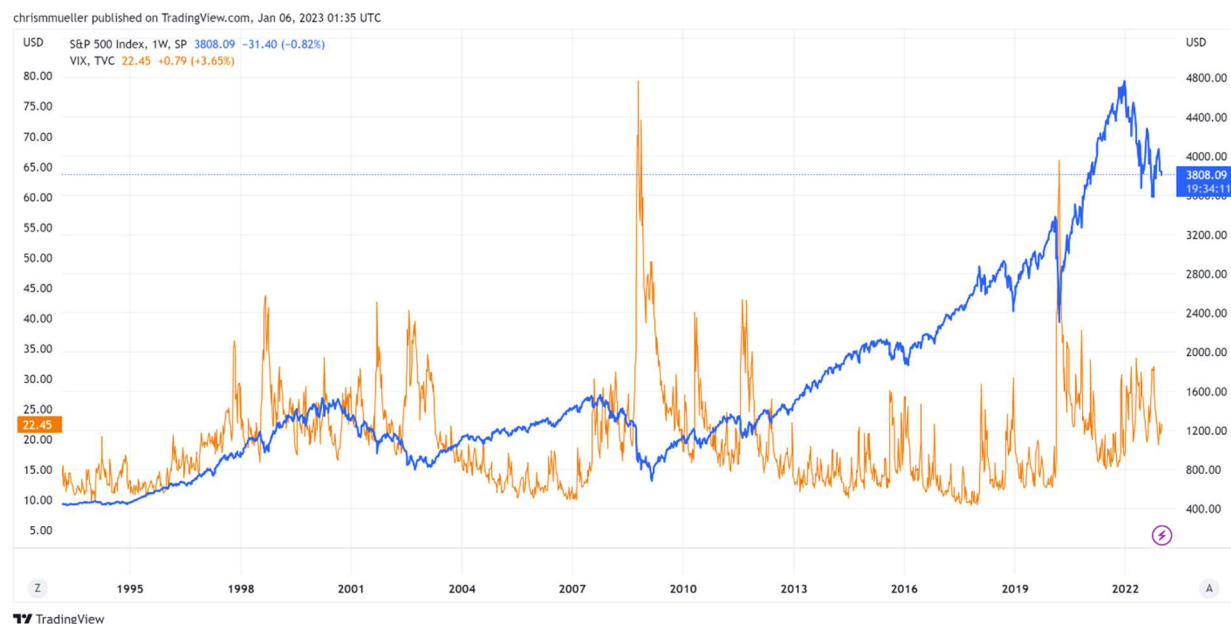


Figure 15 is a chart of the [Fear & Greed](#) index maintained by CNN. It's a rough measure of investor behavior over time in the stock market. Readings above 50 indicate greed, and below 50 indicate fear. The theory is that, when investors are feeling greedy, you want to sell stocks. And when they are feeling

fear, you want to buy stocks. Look how clean those buy and sell signals meshed with the actual highs and lows in the stock market.

Strange as it sounds, the sell-off so far is too clean. There has been no true stress in the stock market. How do we know? Because typical signs of true fear – capitulation-type fear – haven’t emerged. One of our favorite measures of stress is the VIX index. The chief characteristic of the VIX is that it has massive peaks in times of true market stress. In **Figure 16**, the **blue** line is the S&P 500 and the **orange** line is the VIX. Notice that it is rare for the VIX to creep above 40. But when it does, it’s usually indicative of a meaningful bottom being formed for stocks. The two most obvious examples of this are the GFC in 2008-09 and Covid in 2020. Since the current bear market started, the VIX has been relatively muted.

Figure 16: S&P 500 vs. VIX



This bear market feels similar to that of the Dotcom era from 2002-2002. Here are the annual returns for the S&P 500 and NASDAQ 100 during that time period:

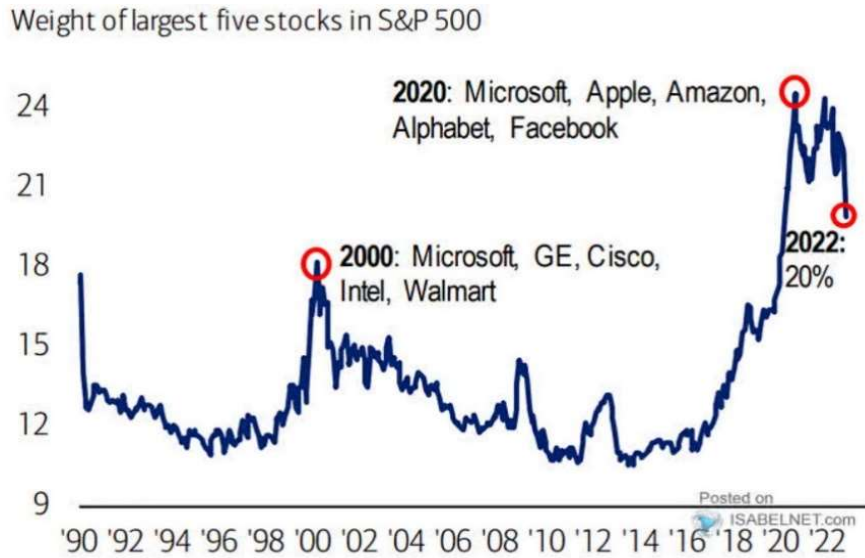
	<u>S&P 500</u>	<u>NASDAQ</u>
2000	(9.10%)	(36.82%)
2001	(11.89%)	(32.62%)
2002	<u>(22.10%)</u>	<u>(37.52%)</u>
Total Loss	(37.61%)	(73.40%)

Why does this time feel similar? First, during Dotcom, the NASDAQ, which is the tech-heavy index, sold off quite heavily from day one. The S&P 500 selloff was muted earlier in the recession. That pattern played out the same in 2022. Go back to the first page and look at return in 2022. The NADAQ was quite a bit lower than the S&P 500 in 2022.

Second, the concentration of tech companies in the S&P 500 is akin to the concentration from the Dotcom era. Recall that the S&P 500 has 500 companies. If all companies were weighted-equally, each

company would get a 0.2% weighting (Remember, 500 companies * 0.2% weight per company = 100% total weight). However, this is not how the S&P 500 works. The S&P weights companies by size; the bigger the company, the bigger the weighting. **Figure 17** shows how this works in practice. The five largest companies in the index make up 20% of the entire index. That's actually down from 24% of the index just two years ago. But it's higher than the previous high of 18% of the index from the Dotcom era. There's lots of concentration at the top. That is a good thing if those big stocks are doing well. But, watch out when they are not.

Figure 17: Weight of 5 Largest Companies in the S&P 500



Source: FactSet, BofA US Equity & Quant Strategy

Which leads us to the third point of comparison between now and Dotcom: valuations. The reason the NASDAQ fell so precipitously in Dotcom was the stratospheric starting valuations of tech companies. When starting valuations are high, low-term returns are low. The opposite is also true. Now, imagine when starting valuations are high, and the companies with the highest valuations are the biggest companies in the index. That is what is happening in today's stock market.

The two charts on the next page are breathtaking. The top chart (**Figure 18**) shows the ten largest tech companies in 2000. What do you notice? The chart looks like the Eiffel Tower. Those ten companies grew tremendously large tremendously fast. As their peak, their combined value was roughly 30% of GDP. That is massive!

But the bigger they are, the harder they fall. And fall they did. By the end of 2002, they were back to regular valuations, but not before dragging the NASDAQ and S&P down with them.

Now take a look at the second chart (**Figure 19**). Notice anything familiar? I sure as heck hope so. It looks virtually identical. Except it's scarier. This time around, the ten largest tech companies had a combined value of roughly 56% of GDP. 56% of GDP! There's no word for that besides lunacy.

Maybe this time is different. But are you willing to take that bet?

These charts are the reason why we have been passionately encouraging a reduction of exposure to tech stocks for the last eighteen months. A day will come when tech resumes its dominant growth status, and rightfully so. But that day is not yet.

We have heard some analysts claiming that the bottom is in for stocks. That it is time to start piling back in. We urge caution in that approach.

Figure 18: 2000 Tech Bubble Valuations

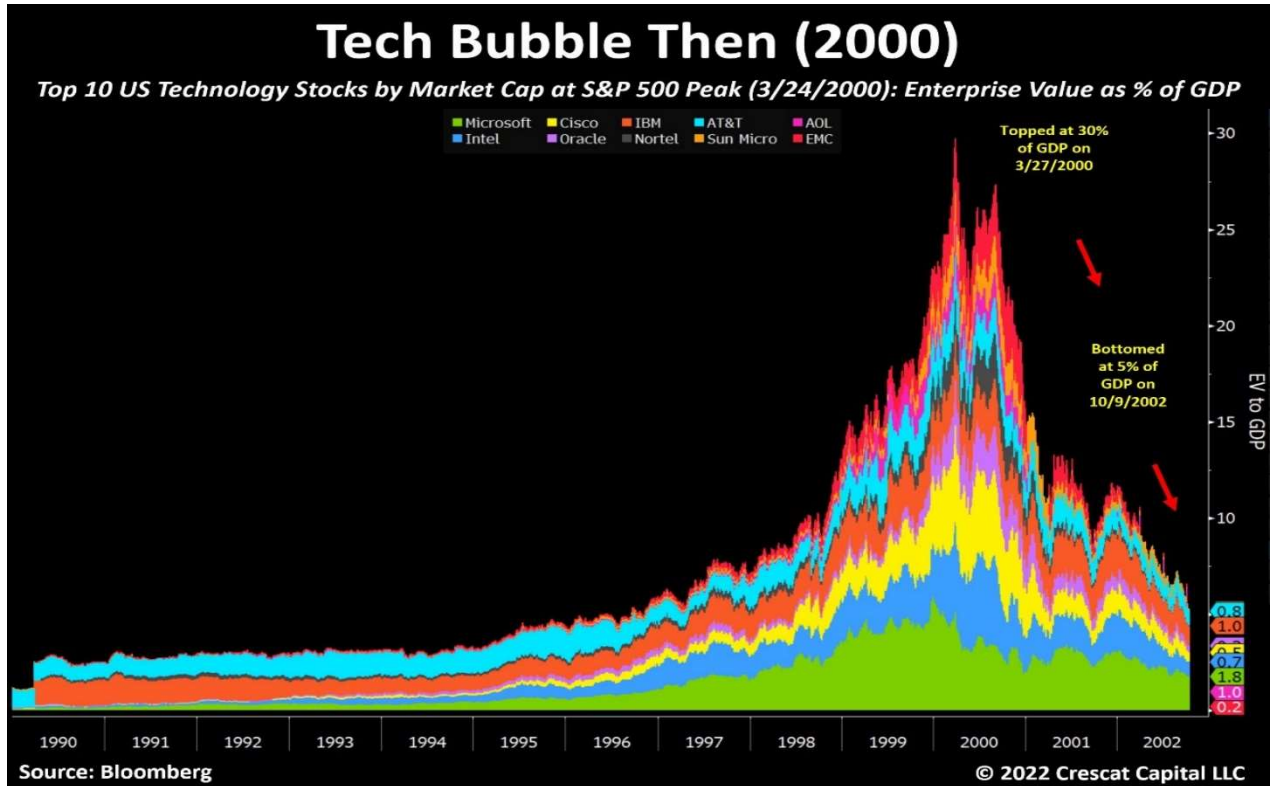
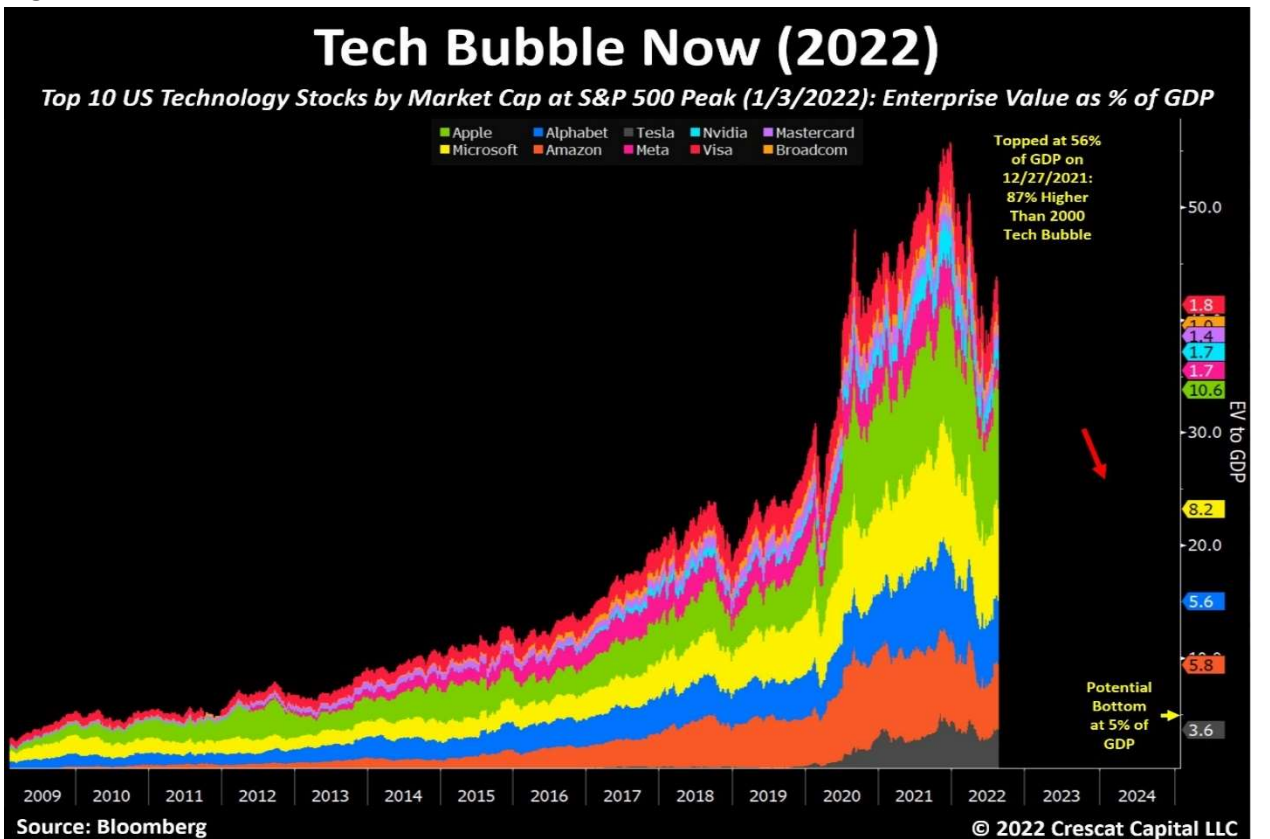


Figure 19: 2022 Tech Bubble Valuations



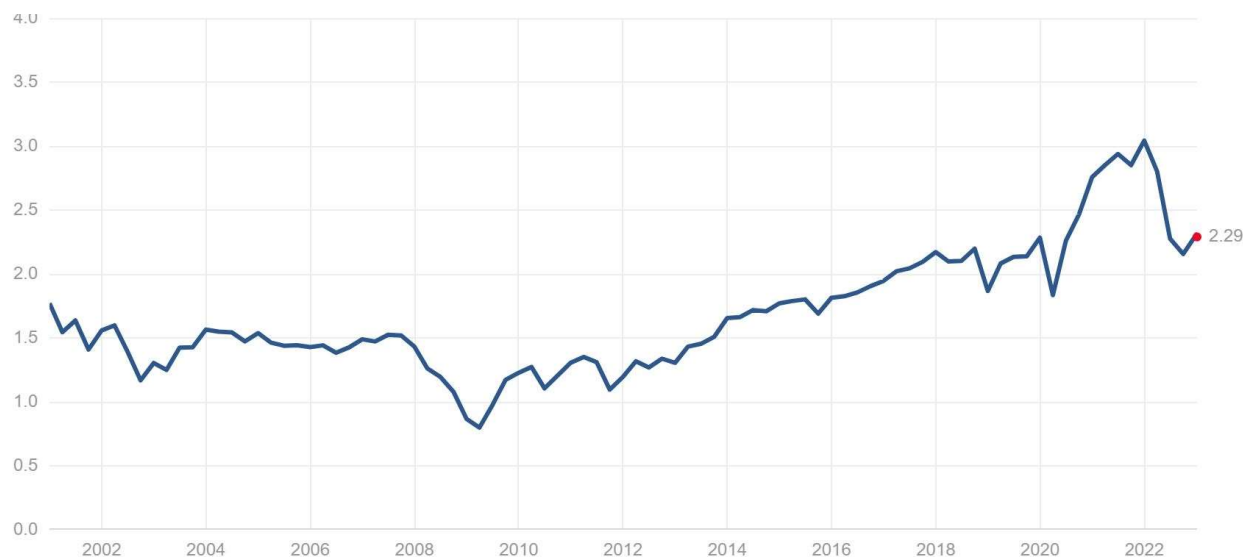
Yes, stocks have gotten beaten up, but they continue to remain expensive by most empirical measurements.

The graphic (**Figure 20**) below comes from [Barchart](#). It shows the largest companies in the S&P 500 in descending order. Observe the column labelled “Price/Sales”. The historical average [Price/Sales ratio](#) for the stock index is 1.50-1.75 (**Figure 21**). Almost all the largest companies have P/S ratios well north of the average (they are overvalued). Even more astounding, P/S ratios remain elevated even after some stocks have heavily sold off. For instance, look at Microsoft. It lost (29.32%) in 2022. Yet, it’s P/S ratio remains at 9.06. Just because a stock has lost a lot of value doesn’t mean it can’t go down further. See the NASDAQ circa 2000-2002 for the case study on that.

Figure 20: P/S Ratios for Largest S&P 500 Companies

Market Cap + Performance		screen flipcharts download									
Last Updated: 12/30/2022 22:25 ET											
Symbol	Name	Last	Market Cap, \$K	52W %Chg	2Y %Chg	YTD %Chg	14D Rel Str	P/E fwd	Price/Sales	Sector	Links
+ AAPL	Apple Inc	129.93	2,066,941,600	-27.09%	-2.83%	-26.83%	37.46%	20.96	5.23	Computers and Technology	⋮
+ MSFT	Microsoft Corp	239.82	1,788,218,400	-29.32%	+8.18%	-28.69%	46.68%	25.26	9.06	Computers and Technology	⋮
+ GOOG	Alphabet Cl C	88.73	1,148,432,400	-39.23%	+2.02%	-38.67%	41.21%	19.01	4.47	Computers and Technology	⋮
+ GOOGL	Alphabet Cl A	88.23	1,141,960,960	-39.65%	+1.63%	-39.09%	40.95%	18.90	4.44	Computers and Technology	⋮
+ AMZN	Amazon.com Inc	84.00	856,938,960	-50.19%	-48.87%	-49.62%	38.90%	122.32	1.83	Retail-Wholesale	⋮
+ BRK.B	Berkshire Hathaway Cl B	308.90	678,721,216	+2.97%	+34.51%	+3.31%	54.27%	20.81	2.46	Finance	⋮
+ UNH	Unitedhealth Group Inc	530.18	495,373,152	+5.10%	+53.68%	+5.58%	49.12%	24.07	1.72	Medical	⋮
+ JNJ	Johnson & Johnson	176.65	461,848,576	+2.52%	+13.20%	+3.26%	50.93%	17.68	4.95	Medical	⋮
+ XOM	Exxon Mobil Corp	110.30	454,247,712	+81.44%	+165.14%	+80.26%	56.48%	7.90	1.57	Oils-Energy	⋮
+ JPM	JP Morgan Chase & Company	134.10	393,342,784	-15.38%	+6.97%	-15.31%	57.72%	11.40	3.07	Finance	⋮
+ V	Visa Inc	207.76	391,314,912	-4.64%	-4.85%	-4.13%	50.52%	25.11	13.37	Business Services	⋮
+ TSLA	Tesla Inc	123.18	388,972,000	-65.47%	-46.81%	-65.03%	29.82%	33.46	7.15	Auto-Tires-Trucks	⋮
+ WMT	Walmart Inc	141.79	382,379,264	-0.96%	-1.66%	-2.00%	39.56%	23.39	0.67	Retail-Wholesale	⋮
+ NVDA	Nvidia Corp	146.14	363,888,608	-50.61%	+11.17%	-50.31%	41.05%	65.40	13.51	Computers and Technology	⋮
+ PG	Procter & Gamble Company	151.56	361,546,240	-6.89%	+10.01%	-7.35%	59.17%	26.19	4.54	Consumer Staples	⋮
+ LLY	Eli Lilly and Company	365.84	347,613,120	+31.95%	+119.05%	+32.45%	52.98%	47.28	12.31	Medical	⋮
+ CVX	Chevron Corp	179.49	347,068,864	+52.85%	+110.35%	+52.95%	55.90%	9.32	2.12	Oils-Energy	⋮
+ MA	Mastercard Inc	347.73	334,328,512	-3.67%	-2.20%	-3.23%	52.99%	32.90	17.73	Business Services	⋮
+ HD	Home Depot	315.86	323,354,080	-22.95%	+19.08%	-23.89%	48.23%	19.26	2.17	Retail-Wholesale	⋮

Figure 21: S&P 500 Price/Sales Ratio



As the Fed continues to raise interest rates, we expect stocks to stay weak. In past commentaries, we discussed interest rate inversions. The Fed, through its manipulation of the Fund Funds Rate, has influence over interest rate inversions. The chart below sheds light on the interplay between stocks and interest rates.

- The purple line (top half) is the difference of the 10-yr yield less the 2-yr yield
 - If this value is < 0 (below the orange line), the yield curve is inverted
 - If this value > 0 (above orange line), the curve is normal
- The blue line (bottom half) is the S&P 500

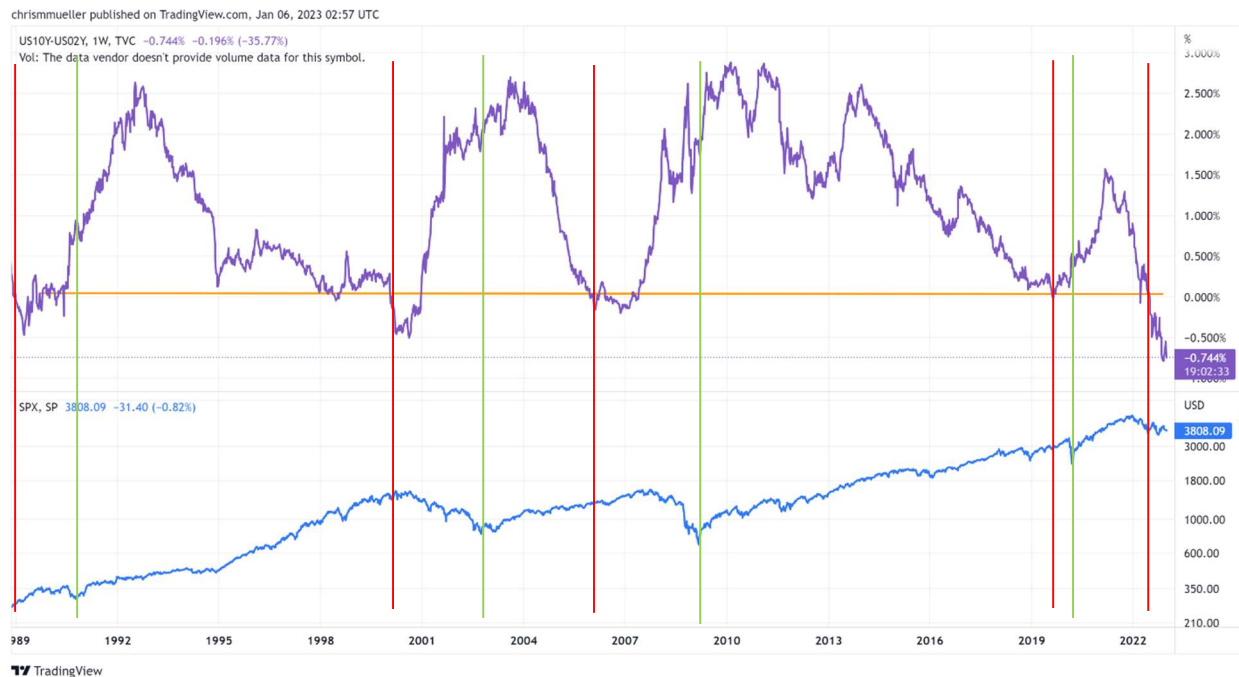
We drew vertical red and green lines at strategic points in time.

- Red lines indicates the first time the yield curve became inverted
- Green lines indicate the ultimate bottom in the stock market

The key observation: Yield curves invert before or during the market-topping process. And the stock market does not bottom until the yield curve begins to normalize (e.g. the purple line moves well above the orange line into positive territory).

The current state of affairs suggests the market is not at the bottom. The yield curve is more negative now than at any point in the past 30 years. Remember, based on history, it needs to normalize before the market bottoms.

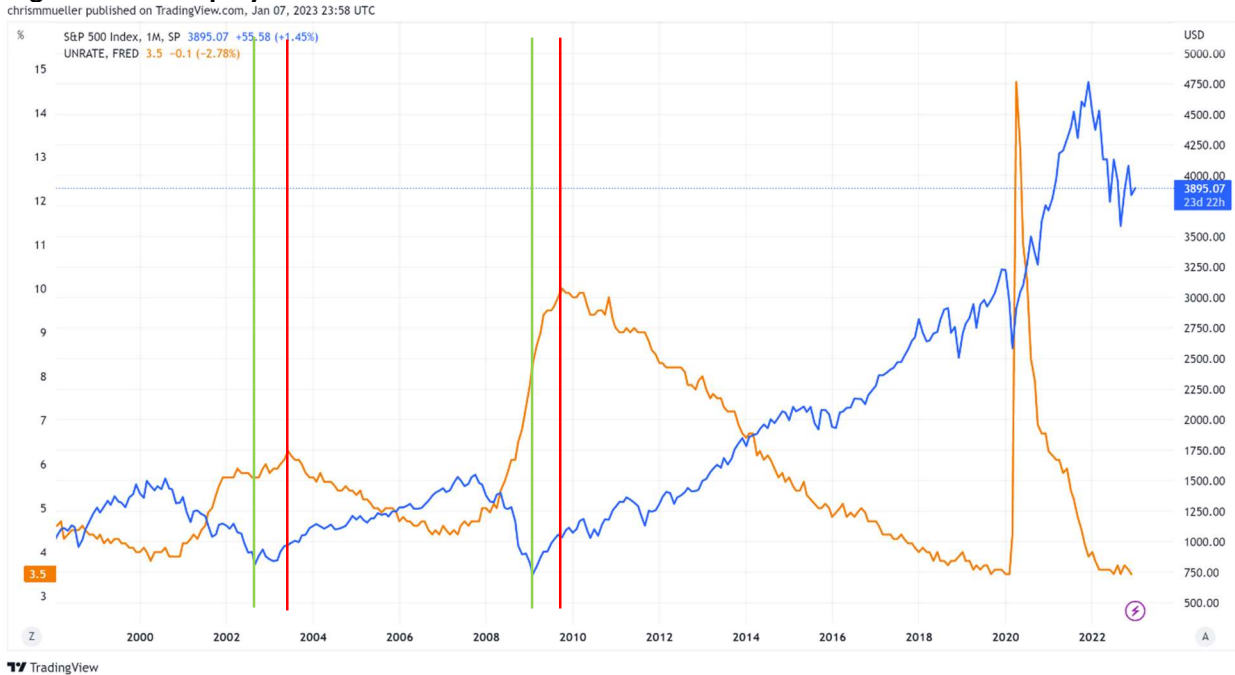
Figure 22: Inverted Yield Curve vs. S&P 500



Another argument used by stock market bulls is that unemployment remains low. In reality, the unemployment rate typically peaks after the stock market bottoms. Put another way, employment is a lagging indicator; it tends to react after the stock market has already sold off and after the economy has started to slide into recession.

Figure 23 shows this lagging effect. The S&P 500 is the **blue** line. The unemployment rate is the **orange** line. During both the Dotcom and GFC recession, the stock market hit bottom (**green** lines) well before the unemployment rate peaked (**red** lines). The current strong labor market is certainly a positive feather in the cap for the economy, but it is not in-and-of-itself a reason to dismiss the preponderance of data suggested the economy (and stock market) are weakening.

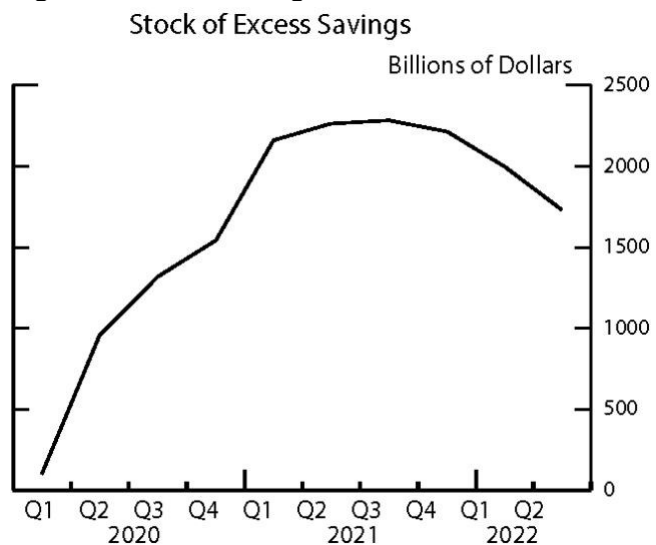
Figure 23: Unemployment Rate vs. S&P 500



Speaking of the economy, there is also an argument being circulated that aggregate demand is strong because consumers have a ton of savings. The theory is that consumers strengthened their balance sheets (e.g. massively increased cash savings) after Covid as they received multiple rounds of stimulus checks. This argument has merit. But that merit is rapidly eroding.

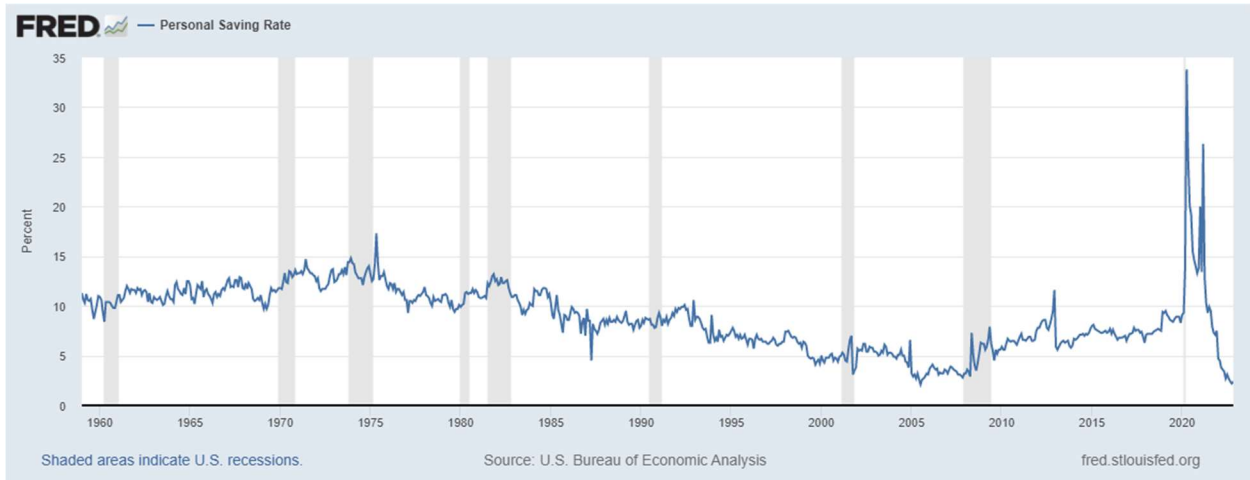
In a [research paper](#) published in October 2022, the Fed calculated that excess savings peaked around \$2.3T in mid-2021 (**Figure 24**). Think of excess savings as the extra savings people accumulated above and beyond what they would otherwise normally save. How did people save extra? They received stimulus payments from the government during Covid. These excess savings may be softening the economic malaise at the moment as people have money to spend on goods and services. But, once that money is depleted, the only way to finance spending is taking on extra debt. With inflation raging, those excess savings should be depleted sooner than later.

Figure 24: Excess Savings



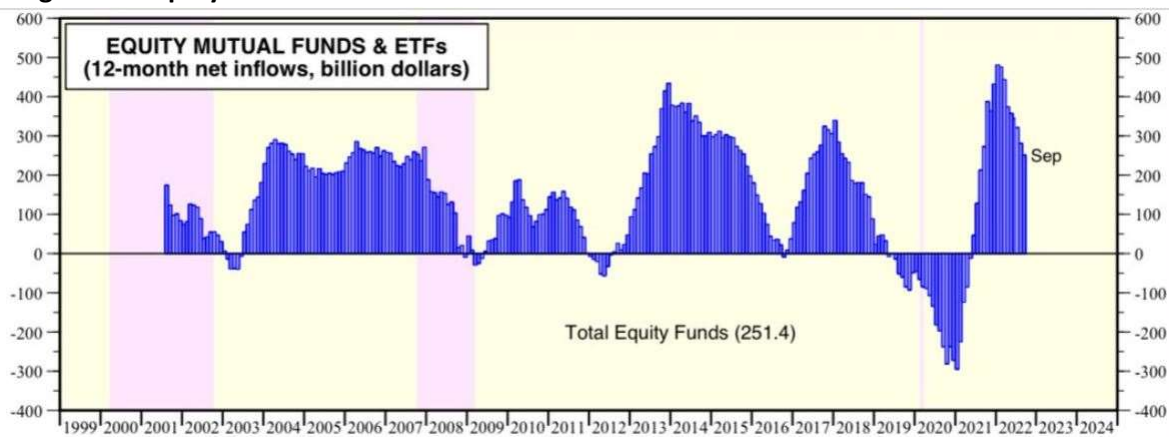
In fact, excess savings have been dwindling for the last few quarters, and as the chart suggests, the decrease is accelerating. Again, this makes sense in the context of a weakening economy and historically high inflation. Another view of this is the current savings rate, the amount of disposable income being saved by people today (**Figure 25**). The picture is not good. Personal savings rates are the lowest in the last 60 years! As long as savings rate remain that low, excess savings will deplete. And when that happens, demand could really slide.

Figure 25: Excess Savings



At the end of the day, the stock market, like the real economy, is a supply and demand mechanism. If demand exceeds supply, the market grows. And if supply exceeds demand, the market shrinks. We’ve spent a lot of time in this commentary laying out the case for a shrinking economy and shrinking market. And while both these appear to be manifesting, we’ve not seen a true imbalance in supply and demand to really break the market. That imbalance, too, may be coming. Despite the large selloffs in equities in 2022, investors were still piling tons of cash into the equity markets. This is classic buy-the-dip behavior. Demand exceeds supply at this point. Figure 26 shows net inflows (> 0) or outflows (< 0) equity investments.

Figure 26: Equity Investment Net Flows



Maybe a few pointers would help:

- Dotcom bubble from 2000-2002- Net flows went negative as the market bottomed
- GFC from 2008-2009 – Net flows went negative as the market bottomed
- Flash Crash in 2011 (US debt downgrade) – Net flows went negative as the market bottomed

The big outflows from 2019 through 2021 were a combination of general fears over trade policy with the rest of the world and then Covid.

The point is: flow demand current exceeds flow supply. Until that unwinds (as it did in Dotcom and the GFC), we are unlikely to see a bottom.

How about a little levity to wrap things up? For those of you who tune into the news...

**INSIDER TRADING
BY MEMBERS OF
CONGRESS**



**SBF GETTING
AWAY WITH
BILLIONS IN FTX
PONZI SCHEME**



**YOUR \$600
VENMO
TRANSACTION**



Final Thoughts

It was easy being an investor in the 1990s. Or in the mid-2000s. Or even in the 2010s. The stock markets seemingly went up all the time. We will get back to that blissful state of affairs. But first, we emphasize that diversification and patience are warranted more than ever right now. Yes, the stock market may remain volatile. Yes, the economy looks shaky. But there are investments somewhere that are doing well when everything else is not. And that is why diversification matters so much in times of stress. It balances those points of stress. Stay patient. Stay diversified. And remember: If you are feeling anxious, we welcome your calls and conversations. Let's have a great 2023.

The opinions voiced in this material are for general information only and are not intended to provide specific advice or recommendations for any individual. All performance referenced is historical and is no guarantee of future results. All indices are unmanaged and may not be invested into directly.

There is no guarantee that a diversified portfolio will enhance overall returns or outperform a non-diversified portfolio. Diversification does not protect against market risk.

Stock investing involves risk including loss of principal.

No strategy assures success or protects against loss.