Letter on the Economy

Market Amnesia: The Market Has No Memory

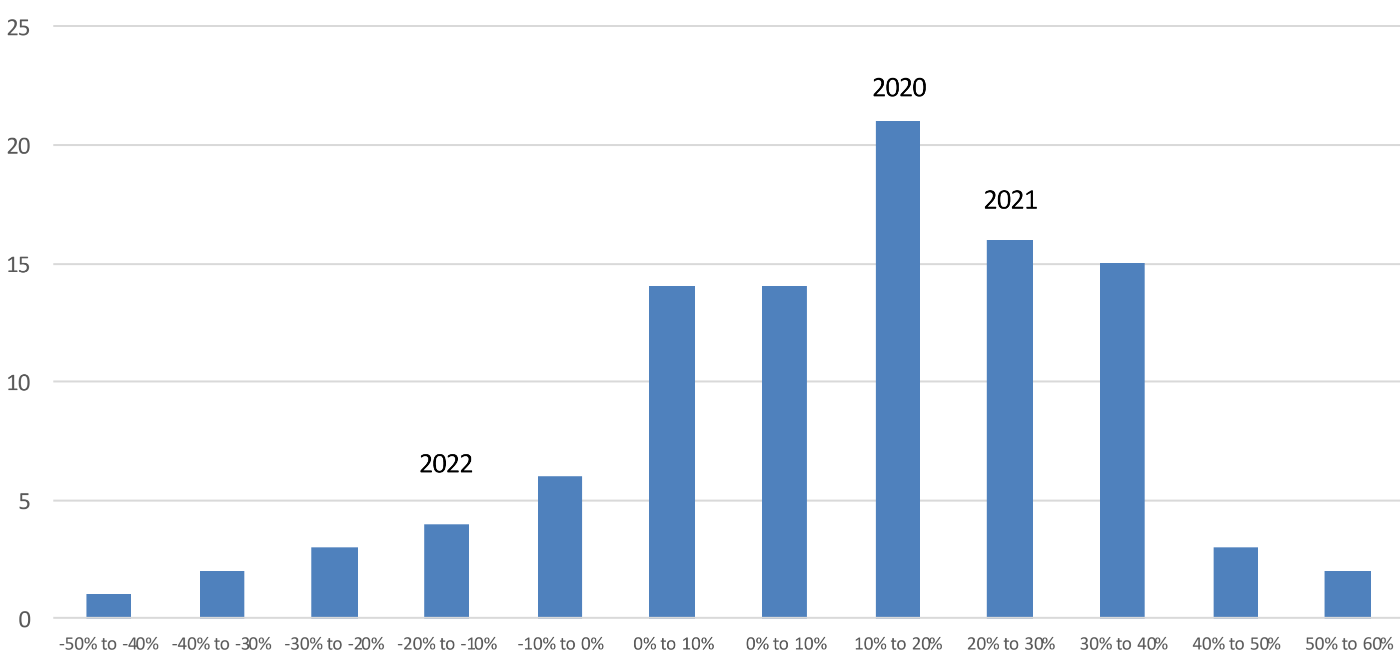
With the daily barrage of financial media touting or disparaging market performance, it is important to remember that when the market opens tomorrow, none of that will matter. The past is the past, and it does not impact the future.

Despite the implications of media reporting, markets have no memory. They do not remember what happened last year or last week or even earlier today. Market prices change based on what is happening right now, in this minute, and what people think will happen next.

The market is always forward-looking. It is a leading indicator of the economy as information of future expectations is expertly and continuously factored into prices. In public financial markets, buyers and sellers negotiate on prices for every stock and bond: for a sale to occur, they must find a price that both participants believe is fair. A fair price is one that factors news of today and expectations for the future. This happens millions of times throughout any given day and begins anew with each trading day (S&P 500 Index average trading volume was 4.1 billion shares on March 2, 2023.) [1]

Available information of all kinds fuels the decision-making process, so buyers and sellers can agree on a price of a stock or bond at any particular moment. As new information comes available, it is factored into the market, and prices adjust almost instantly. Because we cannot know what unknowable event will happen next, trying to out-guess or time the market is a fool's errand. Likewise, relying on memory may lead people to see patterns that are not there or make choices that are not backed by research or evidence.

S&P 500 Index Distribution of Annual Returns 1926 - 2022 [2]



Fortunately, academic research provides insight. Markets average a return of about 10% a year, though with large variance year to year.[2] And the annualized inflation-adjusted return on U.S. stocks is 7.3% since 1926.[3] Looking at data from the past 100 years, we now have a significant picture of the distribution of market returns. As seen from the histogram on the previous page, most returns fall between -10% and +40%.

This histogram does not give us a forecast of the return in the coming years, only a distribution of likely/possible returns. Sharper & Granite research verifies a mountain of other studies showing that there is no correlation between stock market returns one year and the next year.[4] Hence, predicting what will happen next year is little more than a random draw from this sample.[5]

Let's look closer at the last three years. In 2020 the S&P 500 Index fell sharply then rebounded to return 18.4% for the year.[6] The following year saw even stronger performance with a 28.7% return.[6] At the end of 2021, one may have been tempted to predict another strong year; however, that was not the case. In 2022 returns fell to -18.1%.[6]

On the surface, the beginning of 2022 did not seem any worse than the previous year. We still had an ongoing pandemic, but vaccines were readily available, and economies were re-opening. Things seemed hopeful. No one could have predicted how investors would factor in the daily challenges that occurred with the economies reopening around the world, or exactly how the U.S. Fed would adjust interest rates. Investors' expectations of earnings and opportunities dramatically adjusted as post-pandemic life unfolded. Future earnings expectations dropped for many stocks that thrived during the pandemic.

Looking back to the histogram on the previous page, we get a clearer picture of where the 2020 - 2022 returns fit relative to historical returns. The 2022 returns lagged far behind the previous two years, 2021 and 2020. Is this normal?

For perspective, the chart below compares the annualized returns of the last three years with the previous 94 years.[5] This shows S&P 500 Index returns alongside returns for U.S. Treasury Bills (T-Bills) over the last 97 years. U.S. Treasury Bills are considered a "risk-free" asset as they are short-term bonds back by the U.S. government.

Annualized Returns 1926 - 2022 [5]

Years	S&P 500 Index	T-Bill (1 mon)	Equity Risk Premium
1926-2019	10.20%	3.32%	6.88%
2020-2022	7.66%	0.64%	7.02%
1926-2022	10.12%	3.24%	6.88%

This first row shows the years prior to the past three years (1926 - 2019), followed by only the last three years (2020 - 2022), and finally all 97 years together (1926 - 2022). The difference between the S&P 500 Index return rate and the T-Bill return is considered the reward for taking stock market risk and is known as the equity risk premium. Annualized returns are shown for each of these groups.

Although the annualized return over the last three years fell by roughly 2.5%, the equity risk premium stayed relatively constant at about 7%. In other words, equity returns were normal over that timeframe, despite the apparent disparity.

Large swings have occurred throughout history, and trying to time these swings is a losing game. Don't try to outguess the market. Invest *with* the market, knowing that in the long run you will be rewarded. Stick with your plan; don't take on more risk than you can tolerate. And finally, don't let past events bias your views. Start each day anew.

Notes and Acknowledgements:

1. S&P 500 Index, Yahoo! Finance, March 2, 2023
2. S&P 500 Index distribution of annual returns 1926-2021 in US dollars. Standard & Poor's, S&P Dow Jones Indices LLC, 2023
3. Based on non-seasonally adjusted 12-month percentage change in Consumer Price Index for All Urban Consumers (CPI-U). US Bureau of Labor Statistics
4. *Fall 2010 Letter on the Economy*, Sharper & Granite LLC Research, October 2010
5. "Two Steps Forward, One Step Back for Investors", David Booth, Founder and Chairman of Dimensional Fund Advisors, February 6, 2023
6. S&P 500 Total Return Index