ABR Dynamic Funds – 2Q 2023 Newsletter

The VIX Index has declined all the way to…normal levels.

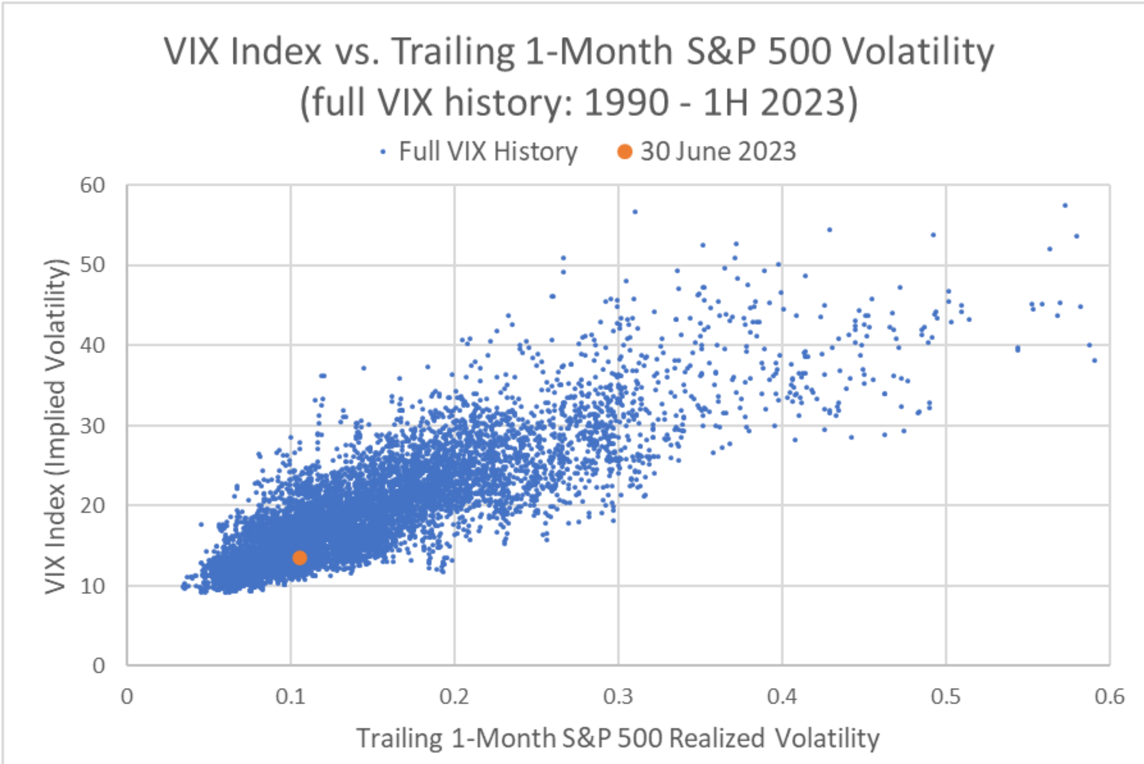
The VIX Index closed the first half of 2023 with a relatively low reading of 13.59. Most readers probably have a general sense that the VIX's average level, since the beginning of 2022, has been in the mid 20's (23.28), and the average level over its full history, since 1990, has been about 20 (19.65). For further context, its highest and lowest historical readings have been 82.69 and 9.14, respectively. In this note, we will address a few common questions that have arisen with the VIX down to pre-COVID-19 levels.

- Does a VIX of 13.59 make sense at the end of June?
- Is it an unusual or particularly low level?
- Does it present a good opportunity to buy volatility?

Does a VIX of 13.59 make sense at the end of June, or is it too low in light of numerous concerns from geopolitical events to the ever-imminent threat of recession?

The VIX is ostensibly forward looking. It measures market expectations of upcoming volatility in the S&P 500 over the next 30 days. From that perspective, its level at the end of June may sound low in light of the concerns many investors have. However, in reality, the VIX is mostly backward looking. The reason it is mostly backward looking is that volatility is autocorrelated; its level is partially sticky, or persistent over short time periods. Market participants use this feature to help set their expectations for upcoming volatility. Therefore, the primary driver of expectations for upcoming volatility is recent past volatility.

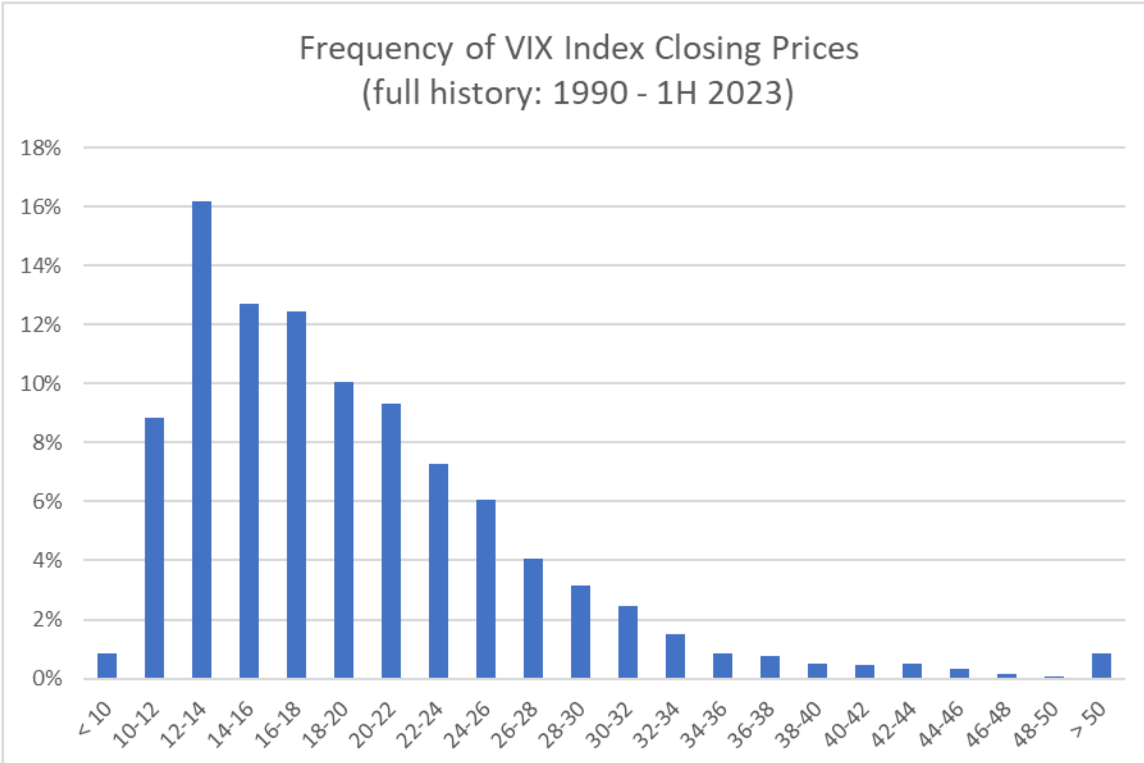
To illustrate the backward-looking nature of the VIX, the following scatterplot shows the strong relationship between trailing 1-month S&P 500 volatility (X-axis) and the concurrent level of the VIX Index (Y-axis). The blue dots show all days over the full history of the VIX Index, and the unremarkable orange dot is 30 June 2023. <u>Simply put, with recent past volatility at 10.56, the VIX (expected upcoming volatility) at 13.59 seems reasonable.</u>



(Data source: Bloomberg. Values over 60 or over 0.6 are omitted for ease of viewing.)

Is 13.59 a particularly low or otherwise historically unusual level for the VIX?

13.59 is below the mean of 19.65 and the median of 17.86. However, it isn't unusual. The mode, or most commonly observed value, of the VIX is actually lower at 12.42. Furthermore, the VIX has closed at or below 13.59 on nearly 1 of every 4 days (22.8%) over its history. The following bar chart shows the historical frequency of observed VIX values. The end of 1H 2023 falls in the tallest bar, indicating the greatest frequency of historical observations. <u>Simply put, 13.59 is a typical level for the VIX.</u>

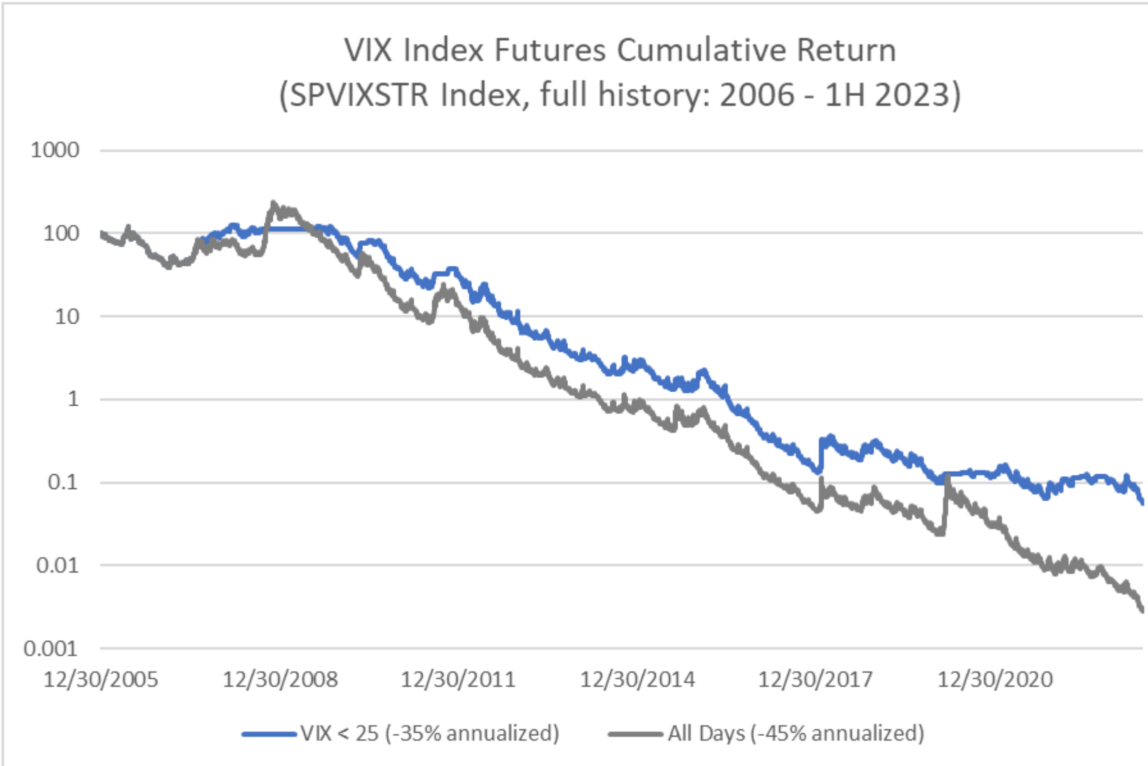


(Data source: Bloomberg)

Does the VIX at 13.59 present a good opportunity to buy volatility instruments in an overly complacent market? After all, the VIX is mean reverting and will eventually reach higher levels.

The VIX is indeed mean reverting and, without predicting how or when, we know it will eventually be higher. However, on average, lower levels in the VIX have not historically presented good opportunities to hold volatility instruments. The reason is that volatility assets decay over time, including when the VIX is low, and the VIX has spent extended periods of time at low levels. In fact, most of the cumulative decay in volatility assets – or the cumulative volatility risk premium (VRP) – has occurred with the VIX near or below its long-term average.

To illustrate, the following graph shows the result of holding a long position in VIX futures on all days (grey) vs. only on the days following a VIX Index close below 25 (blue). Simply put, volatility investors haven't typically benefitted from buying low in the past.



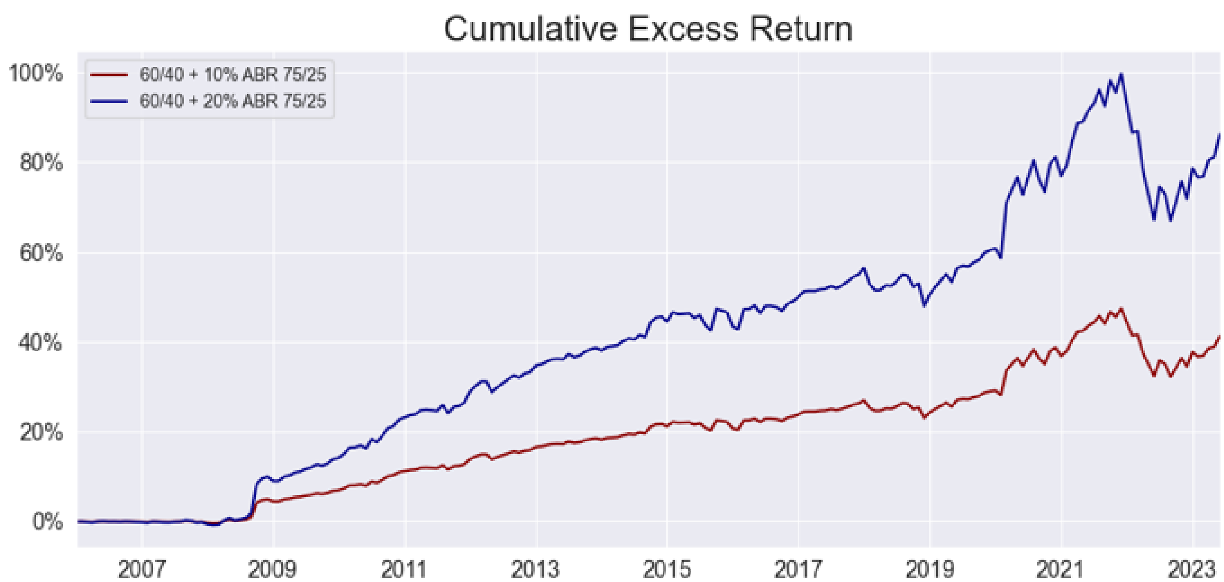
(Data source: Bloomberg)

In contrast to equities, buying low hasn't worked well over time in volatility. That's counterintuitive and illogical to many investors, but it is true. It's true because the long-term drift in the S&P 500 has been up while the long-term drift, or decay, in volatility instruments has been down. Put another way, <u>on average over time, the risk premium has paid the buyers of equities and the sellers of volatility.</u> From that perspective, it is quite logical that the two typically work in opposite fashions.

When it comes to volatility, a different approach is needed than simply buying low and holding or other static approaches.

We think volatility trends have the potential to help. The ABR 75/25 Volatility Strategy utilizes a primarily trend-following model that enables it to seek large gains in major crises while still generally posting equity-like returns in calmer markets. That has made it an appealing partial equity or partial core replacement over time.

The following graphs and risk and return metrics illustrate the historical result of replacing 10% and 20% of a 60/40 portfolio with the ABR 75/25 Volatility Strategy.



	Return	St Dev	Sharpe	Down Dev	Beta	Alpha	Treynor	Sortino	MAR	Max DD
60/40 + 10% ABR 75/25	8.0%	9.6%	0.68	6.9%	0.98	0.008	0.07	0.96	0.28	29%
60/40 + 20% ABR 75/25	8.7%	9.7%	0.75	6.6%	0.97	0.016	0.08	1.10	0.35	25%
60/40	7.3%	9.7%	0.61	7.6%	1.00	0.000	0.06	0.78	0.22	33%

"60/40" is 60% S&P 500 and 40% US aggregate bonds. These allocations were reduced *pro rata* to accommodate the 10% and 20% allocations to the ABR 75/25 Volatility Strategy. See the disclosures for more information on the ABR 75/25 Volatility Strategy, including standardized returns. Includes pre-inception performance before 31 January 2017. See the disclosures for important information on the uses and limitations of hypothetical pre-inception performance.

Disclosures:

The ABR 75/25 Volatility Strategy returns, for the periods ending 30 June 2023, have been +26.9% for one year, +9.5% for five years, +8.6% for ten years and +13.7% over the full history since 2006. Periods longer than one year have been annualized. Certain performance information reflected in these figures is hypothetical. See below for important information regarding hypothetical performance.

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Hypothetical performance does not reflect actual trading experience and does not necessarily reflect the deduction of all expenses. HYPOTHETICAL PERFORMANCE RESULTS HAVE MANY INHERENT LIMITATIONS, SOME OF WHICH ARE DESCRIBED BELOW. NO REPRESENTATION IS BEING MADE THAT ANY ACCOUNT WILL OR IS LIKELY TO ACHIEVE PROFITS OR LOSSES SIMILAR TO THOSE SHOWN. IN FACT, THERE ARE FREQUENTLY SHARP DIFFERENCES BETWEEN HYPOTHETICAL PERFORMANCE RESULTS AND RESULTS SUBSEQUENTLY ACHIEVED BY ANY PARTICULAR TRADING PROGRAM. ONE OF THE LIMITATIONS OF HYPOTHETICAL PERFORMANCE RESULTS IS THAT THEY ARE GENERALLY PREPARED WITH THE BENEFIT OF HINDSIGHT. IN ADDITION, HYPOTHETICAL TRADING DOES NOT INVOLVE FINANCIAL RISK, AND NO HYPOTHETICAL TRADING RECORD CAN COMPLETELY ACCOUNT FOR THE IMPACT OF FINANCIAL RISK IN ACTUAL TRADING. FOR EXAMPLE, THE ABILITY TO WITHSTAND LOSSES OR TO ADHERE TO A PARTICULAR TRADING PROGRAM IN SPITE OF TRADING LOSSES ARE MATERIAL POINTS WHICH CAN ALSO ADVERSELY AFFECT ACTUAL TRADING RESULTS.

The “ABR 75/25” Volatility Strategy is represented by 75% of the returns of the ABR Dynamic Blend Equity and Volatility Index Powered by Wilshire (ABRVXX) and 25% of the returns of the ABR Enhanced Short Volatility Index Powered by Wilshire (ABRXIV) respectively (collectively, the ABR Indexes). The ABR 75/25 Volatility Strategy includes pre-inception performance and is shown net of hypothetical expenses of 2.00% fixed and 20.00% incentive per year. Actual expenses may vary. ABRVXX was launched 30 April 2015, and ABRXIV was launched 31 January 2017, such that performance information before those dates constitutes pre-inception (hypothetical) index performance. Investors cannot invest directly in an index. These results are based on hypothetical performance results that have certain inherent limitations. Hypothetical trading programs in general are designed with the benefit of hindsight. There exists a pooled vehicle which utilizes the ABR 75/25 Volatility Strategy and which launched on 21 October 2021. For information on the live trading performance of the pooled vehicle, please contact us. Past performance does not guarantee future results.

For more information on the live-trading performance of various ABR-advised strategies or the hypothetical performance presented, please contact us. Wilshire® is a service mark of Wilshire Associates Incorporated (Wilshire) and has been licensed for use by ABR Dynamic Funds, LLC. The ABR Indexes are not sponsored, endorsed, sold or promoted by Wilshire, and Wilshire makes no representations or warranties with respect to the ABR Indexes. ABR Dynamic Funds, LLC may receive compensation in connection with licensing the ABR indices to third parties.

The Strategies may acquire or enter into derivatives instruments and transactions. Derivatives are financial instruments that have a value which depends upon, or is derived from, a reference asset, such as one or more underlying securities, pools of securities, options, futures, indexes, or currencies. Derivatives may result in investment exposures that are greater than their cost would suggest; in other words, a small investment in a derivative may have a large impact on the Strategies' performance. The successful use of derivatives generally depends on the ability to predict market movements. There may be an imperfect correlation between a derivative and its reference asset. Certain transactions, such as those involving investing in certain derivatives, may give rise to leverage, causing the Strategies to be more volatile than if it had not been leveraged.

Incorporating a dynamic volatility strategy into a portfolio is designed to help an investor potentially mitigate, and potentially benefit from, volatility in the U.S. stock market. However, all investing involves risk including the possible loss of principal. There can be no assurance such a strategy will achieve a gain or prevent a loss. Volatility assets and strategies may not be suitable for some investors due to their financial circumstances and risk tolerance. A volatility strategy should not be viewed as a complete investment program.

Volatility assets entail their own unique risks that investors should consider when evaluating a volatility strategy. Volatility-based futures can become volatile and difficult to value and can be imperfectly correlated to the underlying asset or index. Due to leverage, the loss on a long futures contract could greatly exceed the initial investment. The loss on a short contract theoretically is unlimited since the appreciation of the shorted asset also theoretically is unlimited. Thus, a small investment in derivatives could have a large potential impact on the performance of a portfolio. Further, a volatility strategy may at times call for high portfolio turnover rates, which increases brokerage costs. High turnover also may generate net short-term capital gains.

ABR Dynamic Funds LLC
17 State Street, Suite 725
New York, NY 10004
212-918-4664
info@abrfunds.com