

## ABR Dynamic Funds – 1Q 2024 Newsletter

*Do long-term investors take enough risk?*

### Introduction

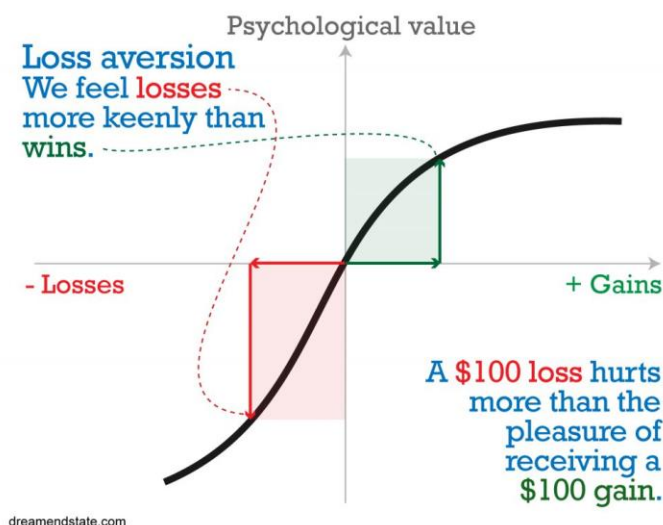
Generally speaking, the optimal manner to construct a portfolio is a two-step process:

- First, combine different investments to achieve the highest possible rate of risk-adjusted return.
- Second, by holding cash or using modest leverage, dial up or down pro rata the exposure to all of the investments in order to achieve the desired level of risk.

Most of the ink devoted by the financial industry to portfolio construction has focused on the first step. After all, the second step appears quite straightforward. Mathematically speaking, it is indeed straightforward, but the answer will probably still surprise many investors. The short answer to the question in the subtitle of this note is: **long-term investors generally take significantly less risk than may be optimal.**

### Brief Background

Oversimplifying, Prospect Theory explains human loss aversion bias by noting that the pain from a financial loss is greater than the pleasure from an equal-sized financial gain. However, over the long-term, loss aversion bias is a bug, not a feature, because our investing lives consist of many gains in addition to the many losses. The losses are no more impactful on the outcome than are the equal-sized gains.



The financial media and financial industry are all too willing to play into this bias, rather than encouraging more optimal behavior. In search of clicks, the media bombards investors with the next reason to fear a downturn. Meanwhile, in search of higher fees for basic benchmark betas, the financial industry creates high-correlation, low-beta products. By both mitigating the downside and limiting the upside, these products have delivered essentially nothing more than a simple reduction in exposure would have delivered (think structured notes, option-income products, downside-hedged products, etc. – although they are not the focus of this note).

The result for investors may be generally lower-risk portfolios. However, risk and reward are two sides of the same coin. Perhaps it's no wonder so little ink is devoted by the financial industry to optimal levels of risk for long-term investors.

### Optimal Risk Levels

As a theoretical example to shed some light on this question, consider a simplified world with only one investment. Each day this investment will either make or lose the same fixed amount, with a 52% chance of a gain and a 48% chance of a loss. **How much of their portfolios should long-term investors, who seek only to maximize expected portfolio value over time, risk in this investment each day?**

This question boils down to a balancing act of two factors:

1. The benefit of positive expected return each day.
2. The detriment of “volatility drag” over time.

The Kelly Criterion was created to answer this question. In this case, investors should risk a full 4% of their portfolios in this investment each day. Put another way, long-term investors should accept, even welcome, 4% daily swings in their portfolio values. The following chart shows the results of a variety of choices in order to illustrate the balancing act.

	too little daily return <-----<-----<-----<-----<-----<-----<-----<-----<-----<-----<-----> too much volatility drag									
Daily Swing	0%	1%	2%	3%	4%	5%	6%	7%	8%	
Annualized Return	0.0%	9%	16%	21%	22.3%	21%	16%	9%	0%	
Annualized Volatility	0.0%	16%	32%	48%	63.4%	79%	95%	111%	127%	
Expected Final Value of \$100 Initial Investment After 25 Years	\$ 100	\$ 907	\$ 4,383	\$ 11,284	\$ 15,468	\$ 11,280	\$ 4,372	\$ 899	\$ 98	

To summarize the chart and the balancing act:

- 1% daily swings – too little benefit from the positive expected return each day
  - The expected value of a \$100 initial investment, after an average 25-year period, is \$907
  - with a 0.2% chance of being down in any random 25-year period.
  - *We note also that the annualized return (9.2%) and volatility (15.9%) of this choice somewhat approximate what many long-term investors seem to choose.*

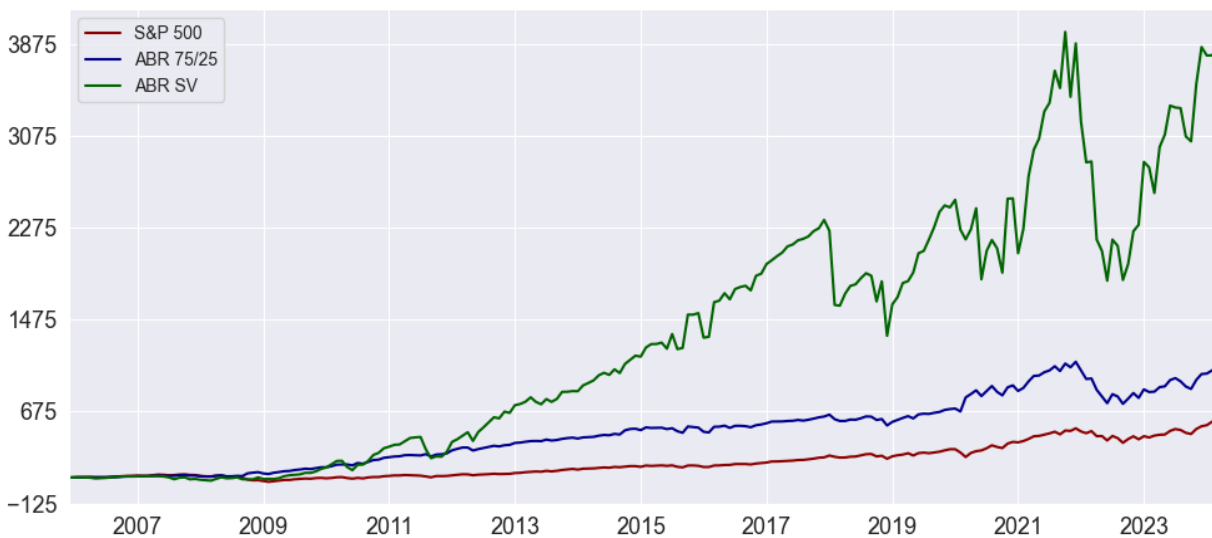
- **4% daily swings – the mathematically optimal balance**
  - The expected value of \$100, after an average 25-year period, is \$15,468
  - with a 3.9% chance of being down in any random 25-year period.
- **7% daily swings – too much harm from the “volatility drag” over time:**
  - The expected value \$100, after an average 25-year period, is \$899
  - with a 34.1% chance of being down in any random 25-year period.

The differences were enormous – more than 15 times the expected wealth after 25 years. Again, this scenario is entirely theoretical, did not represent the returns of any actual investment at ABR Dynamic Funds or anywhere else, and presented an oversimplification of the real world. Nevertheless, the power of this illustration of an oversimplified, one-investment world is encouraging. In the real world, with the diversification of multiple investments, it is possible to seek a higher Sharpe ratio, or rate of risk-adjusted return (although that is step one of the two-step process from the Introduction and is not the focus of this note).

### Conclusion

Armed with a theoretical insight into the potential long-term benefit of taking some more risk, we of course turn to ABR Dynamic Funds’ volatility strategies. In particular, the following graph and chart summarize our flagship ABR 75/25 Volatility Strategy as well as our higher-risk ABR Short Volatility Strategy over their full history since 2006. Unfortunately, it is not quite 25 years yet, but it includes the GFC (pre-inception), Covid, and the rate hikes of 2022-2023.

Performance: 2006 - Mar 2024



	Return	St Dev	Sharpe	Down Dev	Beta	Alpha	Treynor	Sortino	MAR	Max DD
<b>S&amp;P 500</b>	10.4%	15.4%	0.57	11.5%	1.00	0.000	0.09	0.77	0.20	51%
<b>ABR 75/25</b>	13.8%	14.5%	0.84	9.0%	0.54	0.075	0.23	1.36	0.42	33%
<b>ABR SV</b>	22.1%	33.8%	0.61	26.8%	1.46	0.077	0.14	0.77	0.41	54%

(Includes pre-inception performance before February 2017. See below for important information.)

To learn more, please reach out to us at [info@abrfunds.com](mailto:info@abrfunds.com).

Disclosures:

For the periods ending 31 March 2024, the ABR 75/25 Volatility strategy returned +24.8% for one year, +11.3% for five years, +8.9% for 10 years, and +13.8% over the full history since 2006. The ABR Short Volatility strategy returned +48.6% for one year, +16.4% for five years, +15.3% for 10 years, and +22.1% over the full history since 2006. These figures are annualized and include pre-inception performance before February 2017 for both strategies.

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The “ABR 75/25” Volatility Strategy is represented by a blend of 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 Short Volatility (“ABR SV”) Strategy is represented by 100% of the returns of (ABRXIV). 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 Indexes to third parties. The Strategies’ calculations and performance utilized month-end rebalances back to the stated blend.

The ABR 75/25 Volatility Strategy and the ABR Short Volatility Strategy include pre-inception performance and are shown net of hypothetical expenses of 2.00% fixed and 20.00% incentive per year. Actual expenses may vary. ABRVXX was launched 4/30/2015, and ABRXIV was launched 1/31/2017, such that performance information before those dates constitutes pre-inception (hypothetical) index performance. The performance history of each Index, both pre-inception (or hypothetical) and post-inception, was derived by application of ABR’s algorithmic trading models to market data going back to 2006. Hypothetical performance results have certain inherent limitations. Hypothetical trading programs in general are designed with the benefit of hindsight. Investors cannot invest directly in an index.

Hypothetical performance results have certain inherent limitations. Hypothetical trading programs in general are designed with the benefit of hindsight. 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 inception date of the non-U.S. pooled vehicle that utilizes the ABR 75/25 Volatility Strategy was 21 Oct 2021. There also exists a U.S. pooled vehicle which utilizes the Strategy and for which various terms, including expenses, vary. The inception date of the non-U.S. pooled vehicle that utilizes the ABR Short Volatility Strategy was 15 Dec 2017. For more information on the live-trading performance of various ABR-advised funds and strategies, or the hypothetical performance presented, please contact us. Past performance does not guarantee future results.

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.

## Dynamic Funds for a Dynamic Future