First Ascent Asset Management

UNDERSTANDING REBALANCING AND ITS BENEFITS

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UNDERSTANDING REBALANCING

Setting the Stage

A well-designed portfolio is built to achieve an investor's long-term financial goals within limits on portfolio volatility that are determined by the investor's tolerance for risk.

Building such a portfolio can be accomplished by thoughtfully combining "asset classes" with different performance characteristics in a diversified portfolio.

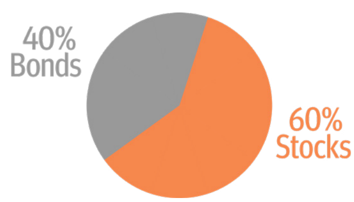
An example would be stocks and bonds. Understanding the differences in the historic performance of stocks and bonds, makes it possible to combine them in ways designed to achieve specific long-term return targets within defined limits on portfolio volatility.

The resulting combination of asset classes is the portfolio's "target allocation."

How Rebalancing Works

Let's say that, based on your personal goals and risk profile, we designed a portfolio for you with a target allocation of 60% stocks and 40% bonds.

60/40 Portfolio



As markets rise and fall, your portfolio's asset class allocations could drift away from the target allocation. For example, in a rising stock market your portfolio might end up holding 70% stocks and only 30% bonds.

Rebalancing is the process of buying and/or selling portfolio holdings to return the portfolio to its target allocation. So, in this case, we would sell some of your stock holdings and purchase bonds in order to bring your portfolio back to its 60%/40% target allocation.

UNDERSTANDING REBALANCING

The Goal is Risk Control

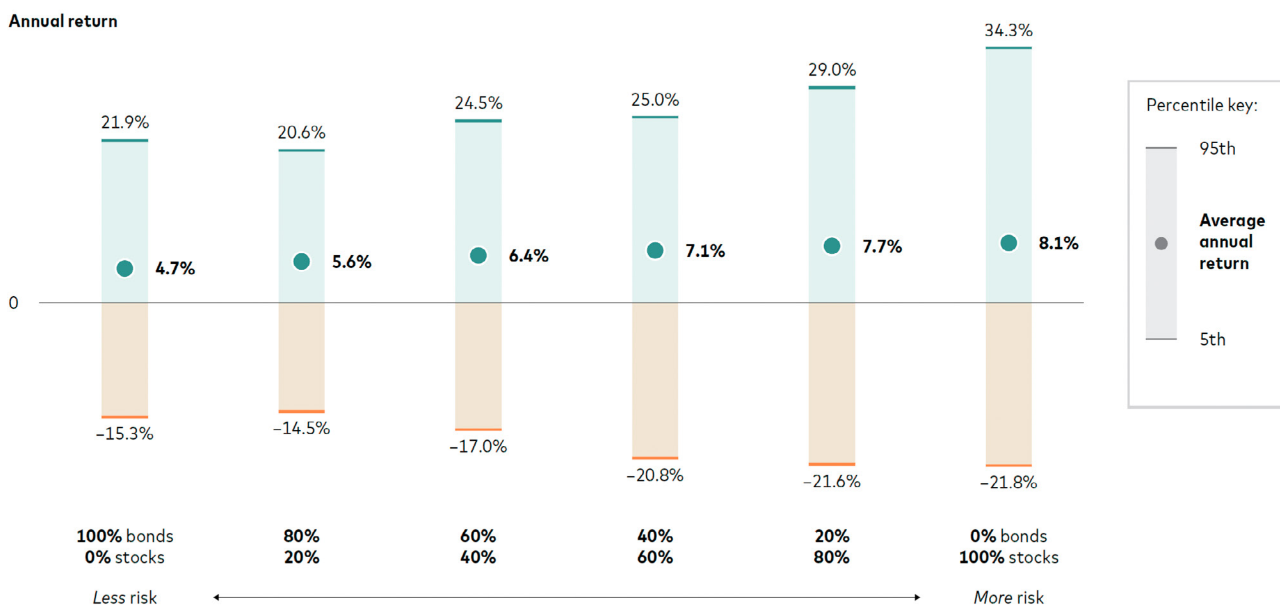
It may seem counterintuitive to sell assets that are performing well and purchase assets whose returns are lagging, but there's a good reason for doing so. The reason is risk control.

As you can see below, historically, as the percentage of stocks in a portfolio increases, so does the potential for larger declines in portfolio value. Such declines can create anxiety, undermine confidence, and even cause an investor to abandon their investment strategy.

So, we try, through rebalancing, to lower portfolio volatility. This helps you weather market turbulence as comfortably as possible, while you make progress toward your financial goals.

Historically, Higher-return Assets Have Brought Increased Risk

Top 5%, Bottom 5%, and Average Annual Returns for Various Global Stock/Bond Allocations
1901–2022



Notes: Data are from Dimson-Marsh-Staunton (DMS) dataset for 1901-2022. Annualized nominal geometric returns are in dark green. The 5th and 95th percentiles are plotted below and above asset mixes. Bar length indicates the range, from 5th to 95th percentile, of annual returns for each allocation; the longer the bar, the larger the variability. The numbers next to each bar represent the average nominal annual returns for that allocation for the 122 years covered.

Source: Vanguard's Principles for Investing Success. 15 Nov. 2023.

Data Sources: Vanguard calculations, using DMS global returns data from Morningstar, Inc. (the DMS World Equity Index and the DMS World Bond Index, both in nominal and real terms). The dataset includes returns from Australia, Austria, Belgium, Canada, China, Denmark, Finland, France, Germany, Ireland, Italy, Japan, then Netherlands, New Zealand, Norway, Portugal, Russia, South Africa, Spain, Sweden, Switzerland, the United Kingdom, and the United States.

Past performance is no guarantee of future returns. The performance of an index is not an exact representation of any particular investment, as you cannot invest directly in an index.

UNDERSTANDING REBALANCING

Another Benefit of Rebalancing--Consistency

The table below shows the year-to-year performance of a variety of asset classes, including US and global stocks and US and global bonds. It also shows the performance of an "Asset Allocated" portfolio of 60% stocks/40% bonds that combines all four of these asset classes together (the dark blue boxes).

You can see that performance of the individual asset classes varies quite a bit from year to year. Asset classes that perform well one year may perform poorly in subsequent years.

The 60%/40% portfolio is not the best performing alternative in any single year. As you might expect it consistently performs in the middle of the pack. And its performance relative to the individual asset classes is very consistent over time.

Rebalancing helps achieve this outcome. By maintaining the portfolio's target allocation, the stocks give it a lift during rising markets and the bonds cushion it during market declines.

More Consistency Through Balance

Annual Returns by Asset Class; Highest to Lowest
2008 - 2022

2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2008-2022 Ann. Ret.	2008-2022 Std. Dev.
	Emerging 78.51	REIT 28.07		Emerging 18.22				Small Cap 21.31	Emerging 37.28		Large Cap 31.43				Large Cap 8.77	REIT 24.17
	High Yield 58.21	Small Cap 26.85		International 17.32				High Yield 17.13	International 25.03		Small Cap 25.52	Large Cap 20.96			Small Cap 7.16	Emerging 21.53
	International 31.78	Emerging 18.88		REIT 17.12	Small Cap 38.82	REIT 32.01		Large Cap 12.05	Large Cap 21.69		REIT 23.10	Small Cap 19.96	REIT 45.91		High Yield 6.09	Small Cap 21.11
	REIT 28.46	Large Cap 16.09		Large Cap 16.42	Large Cap 33.11	Large Cap 13.24		Emerging 11.19	Asset Allocated 15.80		International 22.01	Emerging 18.31	Large Cap 26.54		REIT 5.52	International 18.13
	Large Cap 28.43	High Yield 15.12	REIT 9.37	Small Cap 16.35	International 22.78	Fixed Income 5.97		REIT 6.68	Small Cap 14.65		Asset Allocated 19.45	Asset Allocated 12.76	Small Cap 14.82		Asset Allocated 4.49	Large Cap 16.63
	Small Cap 27.17	Asset Allocated 10.22	Fixed Income 7.84	High Yield 15.81	Asset Allocated 12.87	Small Cap 4.89	REIT 4.48	Asset Allocated 5.78	High Yield 7.49		Emerging 18.42	International 7.82	International 11.26		Fixed Income 2.66	Asset Allocated 10.42
	Asset Allocated 23.15	International 7.75	High Yield 4.98	Asset Allocated 11.36	High Yield 7.44	Asset Allocated 4.88	Large Cap 0.92	Fixed Income 2.65	REIT 3.76		High Yield 14.32	Fixed Income 7.51	Asset Allocated 10.51		International 1.81	High Yield 10.12
Fixed Income 5.24	Fixed Income 5.93	Fixed Income 6.54	Large Cap 1.51	Fixed Income 4.21	REIT 1.22	High Yield 2.45	Fixed Income 0.55	International 1.01	Fixed Income 3.54	Cash 1.86	Fixed Income 8.72	High Yield 7.11	High Yield 5.28		Emerging 0.65	Fixed Income 3.97
Cash 1.79	Cash 0.16	Cash 0.13	Cash 0.08	Cash 0.07	Cash 0.05	Cash 0.03	Cash 0.03	Cash 0.27	Cash 0.84	Fixed Income 0.01	Cash 2.25	Cash 0.58	Cash 0.05	Cash 1.50	Cash 0.05	Cash 0.26
Asset Allocated -23.22			Asset Allocated -1.27		Fixed Income -2.02	Emerging -2.19	International -0.81			High Yield -2.08		REIT -11.20	Fixed Income -1.54	High Yield -11.19		
High Yield -26.16			Small Cap -4.18		Emerging -2.59	International -4.89	Asset Allocated -1.21			REIT -4.22			Emerging -2.54	Fixed Income -13.01		
Small Cap -33.79			International -12.14				Small Cap -4.41			Large Cap -4.78				International -14.45		
Large Cap -37.61			Emerging -18.42				High Yield -4.47			Asset Allocated -5.64				Asset Allocated -16.22		
REIT -39.19							Emerging -14.92			Small Cap -11.01				Large Cap 20.96		
International -43.38										International -13.79				Emerging -20.09		
Emerging -53.33										Emerging -14.58				Small Cap -20.44		
														REIT -25.96		

Source: Morningstar. Asset classes are proxied with the following indices: Fixed Income – Bloomberg US Aggregate Bond, International – MSCI EAFE, Emerging Markets – MSCI EM, Large Cap – Russell 1000, High Yield – Bloomberg US Corporate High Yield, Small Cap – Russell 2000, REIT – DJ US Select REIT, Cash – FTSE Treasury Bill 3 Month, Asset Allocated – 60% MSCI ACWI and 40 Bloomberg US Aggregate Bond rebalanced monthly.

When and How to Rebalance

There are many approaches to rebalancing. Some strategies call for periodic rebalancing—monthly, quarterly, annually. Others are triggered when actual asset allocations depart from target allocations by a certain percentage. Some combine these two approaches.

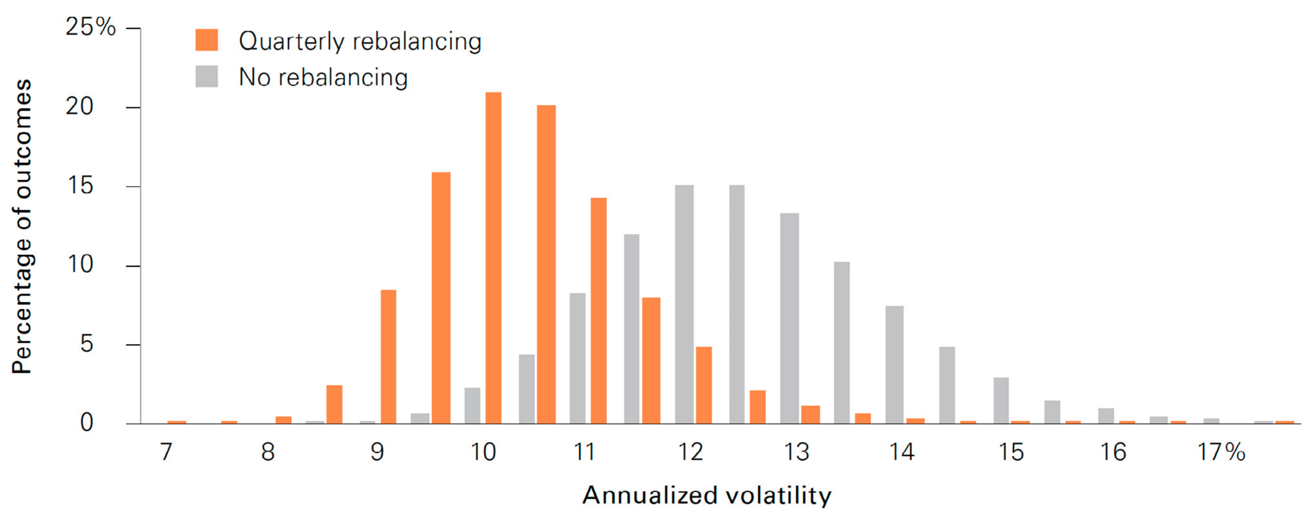
The research shows that there is no perfect rebalancing strategy. The benefits of each vary depending on the performance of the financial markets—something we can't know in advance.

A study done by Vanguard in 2019* examined how a wide range of rebalancing strategies would have performed from 1926 through 2018. Interestingly, the returns and volatilities of the portfolios utilizing different strategies were remarkably similar. The study found no material performance advantages to choosing one rebalancing strategy over another.

But the Vanguard study did find very significant advantages to employing some form of rebalancing strategy compared to no rebalancing at all.

First, it found that rebalancing strategies were all good at maintaining the integrity of a portfolio's target allocation. A 60% stock/40% bond portfolio that was rebalanced regularly had an average stock allocation over time of between 60% and 63%. Portfolios with similar target allocations that were not rebalanced had an average exposure to stocks of 85%--far too high.

The study also found that the volatilities of all rebalanced portfolios were significantly lower than the volatilities of portfolios that weren't rebalanced. For example, the graph below shows that, on average, the annualized volatilities of 60%/40% portfolios that were rebalanced quarterly were significantly lower than those of portfolios that weren't rebalanced.

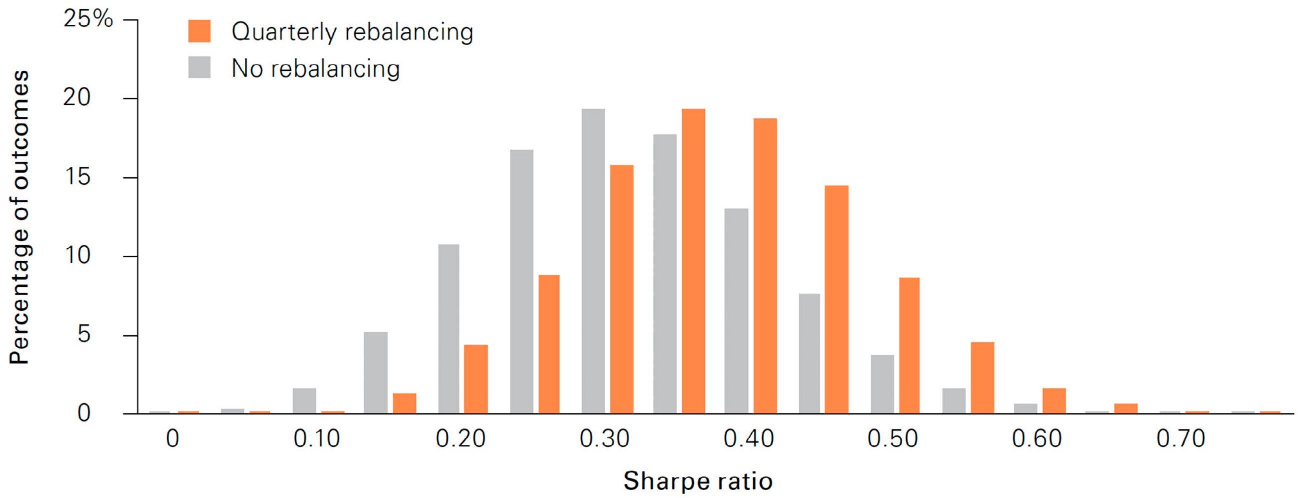


Source: Vanguard study: "Getting back on track: A guide to smart rebalancing." See "Disclosures" for more information.

*Getting back on track: A guide to smart rebalancing, Vanguard (2019). See "Disclosures" for more information.

The study further found that rebalanced portfolios had greater return per unit of risk taken than portfolios that weren't rebalanced. (This is known as a portfolio's "Sharpe ratio.")

You can see in the graph below that portfolios that were rebalanced quarterly had higher Sharpe ratios (higher is better), on average, than portfolios that were not rebalanced at all.



Source: Vanguard study: "Getting back on track: A guide to smart rebalancing. See "Disclosures" for more information.

The Vanguard study led to two important conclusions about rebalancing. First, rebalancing can provide benefits over not rebalancing. Second, it doesn't make much difference which rebalancing strategy you use, as long as you apply it consistently over time.

Take Costs into Account

Any rebalancing strategy you use should take transaction costs and taxes into consideration. Frequent rebalancing can generate transaction costs and taxes that undermine the benefits of rebalancing.

There Are Many Benefits

Having a predetermined, easy-to-follow rebalancing rule in place is important.

- It maintains the integrity of your asset allocation strategy.
- It reduces portfolio volatility.
- It helps generate more consistent performance and can improve risk-adjusted return.
- It transforms what could be a difficult decision made during a time of emotion and stress into a systematic part of the portfolio management process.

Disclosures

The graphics taken from the Vanguard study: **"Getting back on track: A guide to smart rebalancing,"** were generated by the Vanguard Capital Markets Model ("VCMM"). The VCMM analyzes the likelihood of various investment outcomes.

Outputs from the VCMM are hypothetical in nature, do not reflect actual investment results, and are not guarantees of future results.

Distribution of return outcomes were derived from 30-year forecasts of global equity, fixed income, and risk-free rates using 10,000 simulations for each modeled asset class. Simulations are as of December 31, 2018. Results from the VCMM may vary with each use and over time.