Systematic Rebalancing: A key component of Smart Beta investing

Albert Einstein stated "We cannot solve our problems with the same thinking we used when we created them". With broad applications, this philosophy is especially relevant to investing where change is rapid and emotion can play a big part in making buy and sell decisions.

A proverbial problem is that investors have difficulty selling securities that have performed well and buying those that are out of favor. Often, they wait to invest until after performance has peaked or rebounded. Studies have shown that investors who try to increase returns with timing have on average done more harm than good. For instance, a Morningstar study found that over a ten-year period, average investors trailed the performance of mutual funds they had invested in by 0.26%. These results were observed across multiple asset classes and geographies (see **Figure 1**).[1] How is this possible? It boils down to the poor timing of investment decisions – essentially investing in funds after they've already risen in value and selling after they've dropped in value.

Figure 1: The gap between fund and investor returns

	Asset-weighted 10-year investor return (%)	Average 10-year total return (%)	10-year returns gap (%)
Alternative	0.09	-1.31	1.4
Balanced	5.93	5.63	0.3
International stock	2.95	3.99	-1.05
Municipal Bond	2.23	3.49	-1.26
Sector stock	6.42	5.81	0.61
Taxable bond	3.01	3.89	-0.87
US stock	8.32	8.93	-0.61
US stock & sector stock	8.15	8.36	-0.21
All Funds	**5.53**	**5.79**	**-0.26**

Source: Morningstar, as of March 31, 2018. Asset-weighted and average total and investor returns: trailing through March 31, 2018. Categories depicted are per Morningstar definition.
Past performance is no guarantee of future results. An investor cannot invest directly in an index.
Please see the back for terms and definitions and differences between asset classes depicted in this table.

Investors seem to crave comfort

Behavioral economists cite theories that may help explain why investors have been poor at timing decisions. One explanation may be that investors prefer comfort and, as a result, investing "against the grain" can be extraordinarily difficult.

An extreme example is the late 1990's market environment that favored technology stocks. As investors piled in, these stocks only seemed to increase in value and investors continued to chase returns despite valuations exploding to unprecedented levels. The technology sector eventually came back to earth and investors who chased these returns and held these securities for the duration were punished because their portfolios had become overexposed to this sector.

*Please see final page for terms and definitions listed in order of appearance.

At the other extreme, the global financial crisis provided another example of how difficult it can be to rebalance a portfolio. From early 2008 through early 2009, global financial markets were in turmoil and financial stocks lost nearly two thirds of their value in just twelve months.[2] Fear and discomfort caused many to 'run for the hills' when it came to US equities and financial stocks in particular. In March 2009, the market bottomed and subsequently rebounded over 40% before the end of the year with financial stocks rising by 65%.[2] Investors with the fortitude to rebalance into US stocks and the financial sector during this time were rewarded. In the following years, US stocks experienced one of their strongest historical runs and those who waited for financial stocks to become "comfortable" again likely missed a significant portion of upward movement.

Rebalancing sounds easy… but very difficult to do

Introducing a systematic rebalancing process may benefit portfolios of investors who recognize the importance of discipline but have difficulty implementing it. This process is an objective approach to buying and selling securities. Its rules-based methodology ignores emotion and mechanically reallocates portfolio weight away from securities that have recently outperformed to those that have underperformed. Implementing this approach can be difficult as many investors recognize the importance of such discipline but very few demonstrate the ability to stick with it. Emotion always seems to provide "compelling reasons" to decide against reallocating their portfolio and instead maintain current allocations.

Traditional passive investing – Appealing but lacks rebalancing discipline

In the past few decades, investors have increasingly turned to passive strategies for portfolio allocations. Passive investing including both mutual funds and ETFs may offer investors benefits including low cost[3], broad market representation, liquidity[4], transparency[5] and investment capacity. Traditional passive indexes use market capitalization to weight securities multiplying a share's price by the total number of shares outstanding to determine the size or weighting of a company within an index.

While this approach provides benefits, it suffers from two significant drawbacks – 1) Portfolio weight is explicitly determined by current share price and 2) There is nothing to force reallocation and the portfolio will "rebalance" per share price changes. As securities become more "popular" and increase in price, they receive greater portfolio weight. As securities increase in price, their allocation in a portfolio will continue to grow even if the fundamentals don't support the increased allocation. The increased allocation to securities based upon weighting by share price compounds without disciplined rebalancing.

Similarly, in passive strategies, securities that may currently be out of favor (i.e. lower or falling share prices) receive lower representation in a portfolio even at times when their fundamentals would support an increased allocation. And without the rebalance discipline, their representation in a portfolio may continue to marginalize participation in a recovery.

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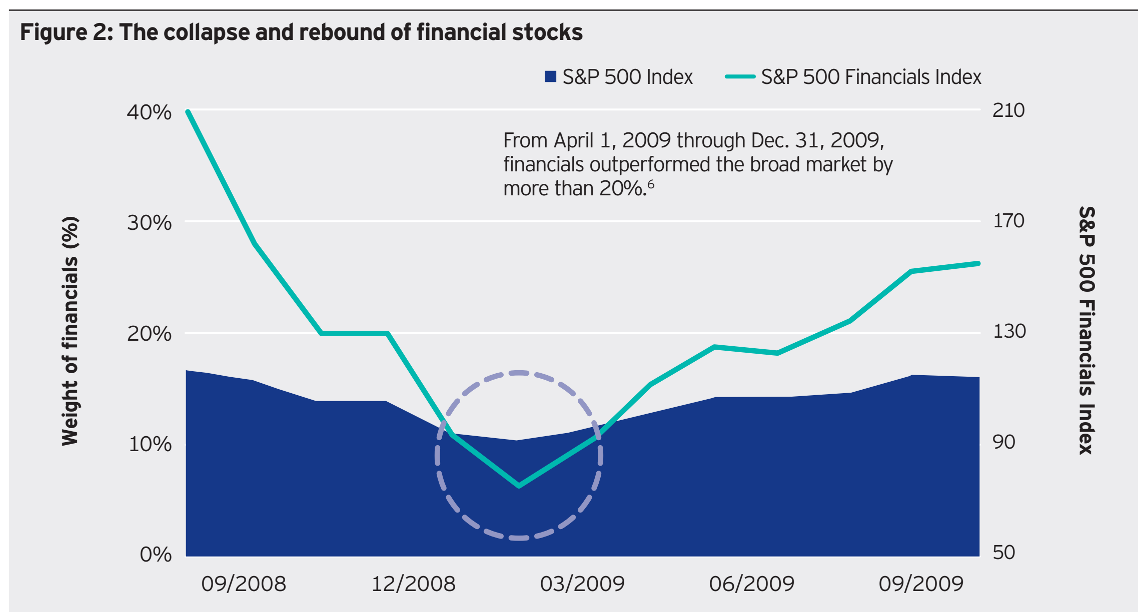
Smart Beta indexes may help

Interest in 'smart beta' indexes has grown rapidly based upon the combination of potential benefits of traditional passive investing coupled with the exposure to rewarded risk factors and the discipline of systematic rebalancing. Smart beta indexes are objective rules-based approaches that utilize alternative weighting methodologies and strive to outperform a benchmark index, reduce portfolio risk or both. The key is that they rebalance using measures that aren't related to share price. Examples of alternative weighting methodologies include fundamentals weight (determining company weight based upon size of measures such as sales, cash flow, dividends, etc.) or equal weight (allocating the same weight to all constituents within a universe). Given the objective nature of these approaches, the index will rebalance regardless of prevailing market sentiment. Rules-based methodologies don't "know" what the market sentiment is– they just "know" to rebalance using pre-determined rules and dates based upon its objective and transparent methodology.

For example, **Figure 2** depicts the performance of financial securities during the Financial Crisis. At the height of the crisis when financial securities were at or near bottom, a smart beta rules-based approach could have helped investors gain exposure to more of the recovery period than would have been provided by a market-cap weighted approach. Through disciplined rebalancing, investors may have the opportunity to increase their exposure to a security or sector's recovery period when valuations may be at their lowest.

Figure 2: The collapse and rebound of financial stocks



Source: Invesco, data as of Sept. 30, 2008 through Sept. 30, 2009
Past performance is no guarantee of future results. An investor cannot invest directly in an index.

A smarter approach to rebalancing

There is an old belief in the investment industry about exercising caution during periods of market greed. Conversely, it is believed that investors may want to consider purchasing securities during periods when overall market participants appear to be fearful. While sage advice, most find it impossible to implement. Using smart beta indexes for systematic rebalancing makes no claim to be able to better time allocation decisions ahead of market movements but can provide investors with discipline needed to try to help get ahead of returns rather than chase them.

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About risk

Definitions

Market-cap weighted is a type of index where individual components are weighted according to market capitalization or the number of shares outstanding multiplied by the share price. Index values are calculated by adding the market capitalization value of each index component and dividing that sum by the number of securities in the index.

Index Definitions

The S&P 500® Index is an unmanaged index considered representative of the US stock market.
The S&P 500® Financials Index is an unmanaged index considered representative of the financial market.

Important Information

There are risks involved with investing in ETFs including possible loss of money. Index-based ETFs are not actively managed. Actively managed ETFs do not necessarily seek to replicate the performance of a specified index. Both index based and actively managed ETFs are subject to risks similar to stocks, including those related to short selling and margin maintenance. Ordinary brokerage commissions apply. The Funds are subject to certain other risks. Please see the current prospectus for more information regarding the risk associated with an investment in the Fund.

The opinions expressed are based on current market conditions as of November 15, 2017 and are subject to change without notice. These opinions may differ from those of other Invesco investment professionals.

A beta of less than one means the security is expected to be less volatile than the overall market. Betas greater than one are expected to exhibit more volatility or movement than the general market.

This does not constitute a recommendation of the suitability of any investment strategy for a particular investor. Investors should consult their Financial Advisors before making any investment decisions.

Diversification does not ensure a profit or eliminate the risk of loss.

Differences and characteristics of asset classes

Equity investing risks

Equity values fluctuate, sometimes widely, in response to activities specific to the company as well as general market, economic and political conditions.

Sector investing risks

Investments focused in a particular industry or
sector are subject to greater risk, and are more greatly impacted by market volatility, than more diversified investments.

Equity versus fixed income

Although bonds generally present less short-term risk and volatility than stocks, the bond market is volatile and investing in bond funds involves interest rate risk; as interest rates rise, bond prices usually fall, and vice versa. Bond funds also entail issuer and counterparty credit risk, and the risk of default. Additionally, bond funds generally involve greater inflation risk than stocks.

Balanced investing risks

A balanced investment holds stock and bonds in an attempt to offer a higher yield than a pure stock fund and offer potential diversification of a bond portfolio. In a rising market, balanced investments may not keep pace with all equity funds.

ETFs vs. Mutual funds

ETFs generally have lower expenses than actively managed mutual funds due to their different management styles. Most ETFs are passively managed and are structured to track an index, whereas many mutual funds are actively managed and thus have higher management fees. Unlike ETFs, actively managed mutual funds have the ability react to market changes and the potential to outperform a stated benchmark. Since ordinary brokerage commissions apply for each ETF buy and sell transaction, frequent trading activity may increase the cost of ETFs. ETFs can be traded throughout the day, whereas, mutual funds are traded only once a day. While extreme market conditions could result in illiquidity for ETFs. Typically they are still more liquid than most traditional mutual funds because they trade on exchanges.

1 Source: Morningstar, as of March 31, 2018
2 Source: Invesco, data as of April 1, 2009–Dec. 31, 2009. Smart beta is an alternative selection index based methodology that seeks to outperform a benchmark or reduce portfolio risk, or both in active or passive vehicles. Smart beta strategies may underperform cap-weighted benchmarks and increase portfolio risk. There is no assurance that an investment strategy will outperform or achieve its investment objectives.
3 Since ordinary brokerage commissions apply for each buy and sell transaction, frequent trading activity may increase the cost of ETFs.
4 Shares are not individually redeemable and owners of the shares may acquire those shares from the Fund and tender those shares for redemption to the Fund in Creation Unit aggregations only, typically consisting of 10,000, 50,000, 75,000, 80,000, 100,000, 150,000 or 200,000 shares.
5 ETFs disclose their portfolio holdings daily.
6 Source: Bloomberg L.P., Dec. 31, 2009

NOT FDIC INSURED | MAY LOSE VALUE | NO BANK GUARANTEE

Before investing, investors should carefully read the prospectus/summary prospectus and carefully consider the investment objectives, risks, charges and expenses. For this and more complete information about the Funds call 800 983 0903 or visit invesco.com for prospectus/summary prospectus.