Asset Allocation

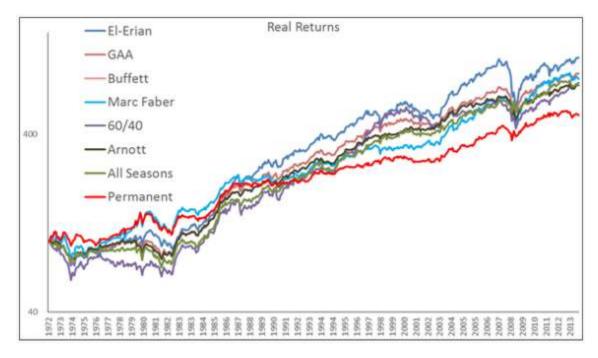
A subject that we deal with on our website. From Dan Rasmussen on 8/19:

The Problem with Asset Allocation

There is a widespread consensus that the most important decision investors make is asset allocation. The argument is that the mix of stocks, bonds, and other assets explains much more of the variance in investor returns than which exact stocks, bonds, or assets you choose.

But asset allocation guru Meb Faber compared a host of asset allocation strategies and found that the spread between the worst performing asset allocation and the best was only 1.8% per year—and that was based on backtests that likely overstate the returns of the best asset allocation strategy (which had a heavy weight on emerging markets and private equity starting in the 1970s). All of the complex models he tested had roughly the same Sharpe ratios of between 0.4 and 0.6.



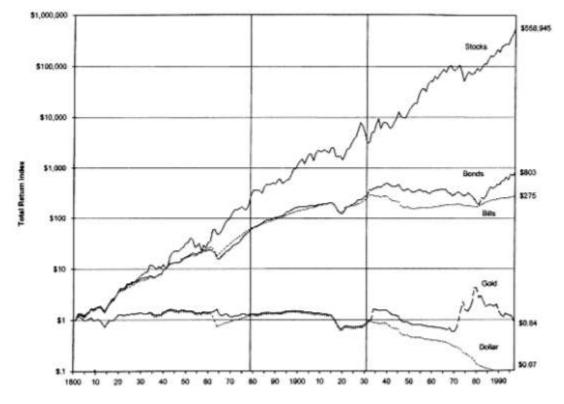


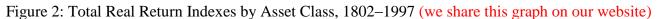
Source: Meb Faber

Asset allocation may be the biggest driver of variance in portfolio returns, but that doesn't mean that it's easy to pick the best asset allocation strategy or that this is necessarily a great source of investor edge. In fact, researchers from London Business School and University of Texas put 14 asset allocation models to the test and found that the best performing was a naïve equal-weight allocation. They argue that the data on these asset classes does not go back far enough to make reliable statistical predictions—certainly not far enough to justify the use of the mean variance models so popular among consultants.

But we do know a few things about asset allocation.

We know that stocks outperform all other asset classes in the long run and do so with remarkable stability. In his book Stocks for the Long Run, Jeremy Siegel notes that from 1802 to 1977, "stocks have yielded between 6.6 and 7.2 percent per year after inflation" in all major subperiods, through massive economic, social, and political changes.





And we know that as soon as we start talking about asset allocation and mixing in different asset classes, we are talking about moving away from equities and thus lowering returns. Below are the nominal returns and Sharpe ratios of various asset allocations compared to the stock market from 1972 to 2013. All the portfolios outperform stocks by Sharpe ratio, but fall behind on absolute returns, with the exception of the El-Erian portfolio, which included a large weight in private equity and a large weight in emerging markets (neither of which we currently recommend) starting in the early 1970s and thus benefits from hindsight bias.

Investors seeking to maximize long-term returns, therefore, do not have a good alternative to a 100% equity portfolio (provided it includes a healthy dose of REITs). There are strategies within equities for improving long-term returns (see below), most notably the long-term premium for buying small value stocks. And there are strategies for reducing volatility in equities without giving up returns, like international diversification (again, see below). But that's about the limit of what we really know with a high degree of confidence.

But a 100% equity portfolio can experience significant volatility and long stretches of poor performance (as investors paying attention to the market this month can attest). Ray Dalio, famous for having predicted "5 of the last 3 recessions," warned in a recent piece about his fear of paradigm shifts where what's worked well recently (equities) might not work well in the future. Dalio advocates diversification as the best defense against paradigm shifts (and buying gold, but we won't touch that one). "Any single approach to investing—e.g.,

Source: Siegel, Stocks for the Long Run

investing in any asset class, investing via any investment style (such as value, growth, distressed), investing in anything—will experience a time when it performs so terribly that it can ruin you," he warns. ...

Figure 3: Portfolio Nominal Returns, 1973–2013

Portfolio	Returns	Sharpe Ratio
El-Erian	10.5%	0.48
Stocks	10.2%	0.32
GAA	9.9%	0.58
Warren Buffet	9.8%	0.32
Marc Faber	9.7%	0.46
60/40	9.6%	0.42
Arnott	9.5%	0.59
All Seasons	9.5%	0.51
Permanent	8.5%	0.45

Source: Meb Faber

But investors unwilling to use leverage don't have any better options than a 100% equity portfolio if long-term returns are the primary goal. Other asset classes can outperform equities for a time and so tactical asset allocation through market timing might be a possibility, but market timing is notoriously difficult. So investors are left with stocks

Our recommendation for "improving long-term returns" is to diversify across those Factors which we innumerate on our website, not just "buying small value stocks".

How a Multi-factor Portfolio is Constructed Matters

By Larry Swedroe October 11th, 2018

The CAPM was the first formal asset-pricing model. Market beta was its sole factor. With the 1992 publication of their paper, "<u>The Cross-Section of Expected Stock Returns</u>," Eugene Fama and Kenneth French introduced a new-and-improved three-factor model, adding size and value to market beta as factors that not only provided premiums, but also helped further explain the differences in returns of diversified portfolios.⁽¹⁾

However, financial innovation didn't end there. While the academic literature now contains more than 600 factors, there are only a relatively small number that have gained popularity, as they have been viewed as being persistent, pervasive, robust to various definitions, implementable (survive transaction costs), and have intuitive risk-based or behavioral-based explanations for why they should persist. In addition to the three Fama-French factors, we can add, momentum, profitability (which, along with investment, Nobel Laureate Eugene Fama and fellow researcher Ken French added to their three-factor asset pricing model in 2015), quality (which usually includes profitability) and low beta/low volatility.⁽²⁾

Note that while factor premiums are based on long-short portfolios (the value premium is captured by going long stocks with low prices to metrics such as book value, earnings and cash flow and going short stocks with high prices relative to those metrics), in practice, factor investing is typically implemented in a long-only framework.⁽³⁾

Single-Factor or Multi-Factor Approach?

For investors who decide to strategically allocate to factor premiums, the question of how to most efficiently construct portfolios that provide exposures to these factors is critical. Is it better to create a portfolio using individual, single-factor components (thinking of them as "building blocks")? Or, is it better to build a multi-factor portfolio from the security level (where scoring or ranking systems are used to select securities)? It should be intuitive that the latter approach, using multi-factor funds rather than single-factor funds (what is referred to as a bottom-up approach), is superior. One reason is that if you use the component approach, you will have one factor fund buying a stock (or group of stocks) while another factor fund will be selling the same stock (or group of stocks). For example, if a stock (or an entire sector) is falling in price, it might drop to a level that would cause a value fund to buy it, while a momentum fund would be selling the very same security. Investors would thus be paying two management fees and also incurring trading costs twice, without having any impact on the portfolio's overall holdings. The unnecessary turnover could also lead to the realization of capital gains.

Jennifer Bender and Taie Wang, authors of the 2016 study "<u>Can the Whole Be More Than the Sum of the</u> <u>Parts? Bottom-Up versus Top-Down Multifactor Portfolio Construction</u>," which appeared in a 2016 Special QES Issue of The Journal of Portfolio Management (<u>link here</u>), examined which of the two approaches is more efficient. The authors observed that the bottom-up (multi-factor) approach would seem to be a better one because the portfolio weight of each security will depend on how well it ranks on multiple factors simultaneously, while the approach combining single-factor portfolios may miss the effects of cross-sectional interaction between factors at the security level. The study used the equity factors of value, size, quality, low volatility and momentum, from which the authors built global portfolios from developed markets.

Bender and Wang found that the bottom-up portfolio returns were higher than any of the underlying individual component factor returns and higher than the combinations. Additionally, the volatility of the bottom-up portfolio was significantly lower. For example, over the period from January 1993 through March 2015, the combination portfolio not only earned a lower return than the bottom-up portfolio (11.1 percent versus 12.1 percent), but it also exhibited higher volatility (an annual standard deviation of 14.9 percent versus 13.8 percent). The following table from their study summarizes Bender and Wang's results.

	Value Portfolio	Low Volatility Portfolio	Quality	Momentum Portfolio	Combination Portfolio	Bottom Up
Annualized Return	11.93%	10.82%	10.49%	11.13%	11.14%	12 13%
Annualized Volatility	17.24%	13.39%	14.83%	14.94%	14.86%	13.79%
Risk adjusted Return	0.69	0.81	0.71	0.74	0.75	0.88
Excess Return	3.80%	2.69%	2.35%	3.00%	3.01%	3.99%
Tracking Error	7.52%	5.50%	4.40%	4.74%	4.80%	5.35%
Information Ratio	0.50	0.49	0.53	0.63	0.63	0.75

They also found that, "the bottom-up approach consistently produced better performance over the combination approach in all periods." Bender and Wang concluded, "there are, in fact, beneficial interaction effects among

factors that are not captured by the combination approach. Both intuition and empirical evidence favor employing the bottom-up multifactor approach."

The latest support for the multi-factor approach comes from David Blitz and Milan Vidojevic, authors of the July 2018 study "<u>The Characteristics of Factor Investing</u>." They built a characteristics-based multi-factor expected return model to qualitatively and quantitatively describe the returns of factor-based portfolios. This model enabled them to estimate the expected returns of each stock in the universe, at each point in time, and further to aggregate these expectations on a factor-portfolio level. Their data sample covers the period from June 1963 through December of 2017.

The following is a summary of their findings:

- Single-factor portfolios, which are strategies that invest in stocks that score highly on one particular factor, are generally suboptimal because they ignore the possibility that these stocks may be unattractive from the perspective of other factors. Negative contributions from other factors cause these strategies to have a substantial weight in stocks with negative expected and ex-post realized market-relative returns. For example, a generic value strategy invests, on average, about 20 percent in stocks that are expected to underperform. While these stocks have attractive value characteristics, which contribute positively to their expected returns, their other factor characteristics are unattractive, and the negative contributions from these factors offset the positive contribution from value. Other generic factors display similar patterns.
- The return of generic factor strategies can be enhanced significantly by simply removing stocks that have lower expected returns than the market, based on their overall factor profile. Some stocks have such poor factor characteristics that their expected returns end up being lower than returns on Treasuries. By simply removing those stocks from the market portfolio ex-ante, the realized market return increases by 16 percent, in relative terms. Here's the applicable table from their study.

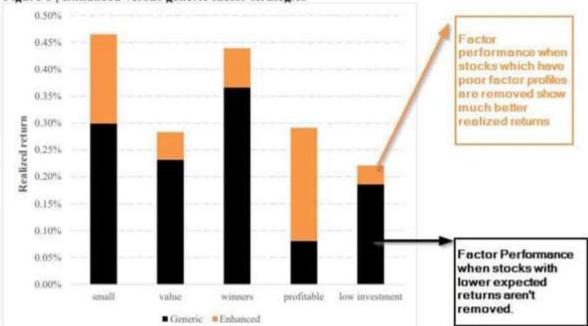


Figure 6 | Enhanced versus generic factor strategies

Return differences between factor portfolios in the small-cap and large-cap space, and between equally weighted and value-weighted factor portfolios, can also be explained by their model.

The market portfolio itself suffers from a significant return drag caused by stocks with unattractive factor characteristics. The market portfolio is invested, on average, about 9 percent in stocks that have an expected return lower than the expected return on 10-year Treasury bonds. Removing such stocks from the market portfolio increases the equity risk premium by about 16 percent, in relative terms.

Solely targeting the profitability premium and the size premium results in suboptimal results unless they take other factors, and, crucially, the price paid per unit of fundamental (book) value, into account.

Blitz and Vidojevic concluded the following:

...a thorough understanding of how factor characteristics drive portfolio returns is the key towards successful factor investing.

Summary

Both the logic and the evidence presented demonstrate that the way factor-based portfolios are constructed matters a great deal. Efficient portfolios are ones that are both designed from the bottom up and exclude stocks that have negative loadings on other factors to the extent they create a substantial drag on returns. Thus, returns of even single-factor portfolios can be improved by screening out stocks with negative premiums, once all factor exposures are considered.

There are factor-based funds that have long implemented such rules to improve performance. For example, in 2003 Dimensional Fund Advisors began screening out negative-momentum stocks from its eligible buy lists. Doing so has basically eliminated the once-substantial negative loading on momentum that is typical of deep value funds. Bridgeway is another fund family that uses a similar approach, with the same results. Dimensional has also long screened out what are referred to as "lottery stocks," stocks with very poor characteristics in terms of profitability and investment. Other fund families, such as Bridgeway and AQR, do this as well. (Again, in the interest of full disclosure, my firm, Buckingham Strategic Wealth, also recommends Dimensional and Bridgeway funds in constructing client portfolios.)

Of course, the issue is not entirely black and white, and there is room for debate depending on how the analysis is conducted. For example, Alpha Architect has a <u>research piece</u> that examines more concentrated characteristics-focused portfolios and finds that combining single-factor approaches may be more effective than multi-factor approaches. One hypothesis for this empirical result is the potential expected return benefits of more concentrated single-factor exposure overwhelm any potential benefits of considering cross-sectional interaction effects. Another difference in its analysis is the use of EBIT/TEV as the value metric versus the traditional book-to-market version of the value factor.

Long story short, if the design of your portfolio is factor-based, one needs to understand the construction rules used by the funds in it and do a deep dive into the underlying process. Different approaches can achieve different goals, and investors should confirm that the process they are investing in aligns with the goals they seek to achieve.

References

1. A history of factor models is available here.

- 2. Good summaries of factor replication research are here and here.
- 3. Examples of exceptions are the AQR Style Premia Alternative Fund (QSPRX) and the AQR Alternative Risk Premia Fund (QRPRX). (Full disclosure: my firm, Buckingham Strategic Wealth, recommends AQR funds in constructing client portfolios.)

About the Author:

As Director of Research for Buckingham and The BAM ALLIANCE, Larry Swedroe spends his time, talent and energy educating investors on the benefits of evidence-based investing with enthusiasm few can match. Larry was among the first authors to publish a book that explained the science of investing in layman's terms, "The Only Guide to a Winning Investment Strategy You'll Ever Need." He has since authored seven more books: "What Wall Street Doesn't Want You to Know" (2001), "Rational Investing in Irrational Times" (2002), "The Successful Investor Today" (2003), "Wise Investing Made Simple" (2007), "Wise Investing Made Simpler" (2010), "The Quest for Alpha" (2011) and "Think, Act, and Invest Like Warren Buffett" (2012). He has also co-authored seven books about investing. His latest work (which I use as a text for my University of Oklahoma class "Advanced Topics in Investments"), "Your Complete Guide to Factor-Based Investing: The Way Smart Money Invests Today," was co-authored with Andrew Berkin and published in October 2016. In his role as director of research and as a member of Buckingham's Investment Policy Committee and Board of Managers, Larry, who joined the firm in 1996, regularly reviews the findings published in dozens of peerreviewed financial journals, evaluates the outcomes and uses the result to inform the organization's formal investment strategy recommendations. He has had his own articles published in the Journal of Accountancy, Journal of Investing, AAII Journal, Personal Financial Planning Monthly and Journal of Indexing. Larry's dedication to helping others has made him a sought-after national speaker. He has made appearances on national television shows airing on NBC, CNBC, CNN and Bloomberg Personal Finance. Larry is a prolific writer and contributes regularly to multiple outlets, including Advisor Perspectives and ETF.com. Before joining Buckingham and The BAM ALLIANCE, Larry was vice chairman of Prudential Home Mortgage. He has held positions at Citicorp as senior vice president and regional treasurer, responsible for treasury, foreign exchange and investment banking activities, including risk management strategies. Larry holds an MBA in finance and investment from New York University and a bachelor's degree in finance from Baruch College in New York.

A Framework for Analyzing Multifactor Funds

Alex Bryan, CFA 12 Sep 2018

Multifactor funds are among the most complex index investments, more closely resembling active than passive management. As such, it is necessary to apply a similar level of rigor to evaluate their portfolio-construction processes. In June, Morningstar's Manager Research team published "<u>A Framework for Analyzing Multifactor Funds</u>." What follows is a summary of that framework, which should help investors assess these funds' approaches to portfolio construction to better navigate the landscape.

What Is the Fund's Selection Universe?

The selection universe, also referred to as a parent index, is the collection of potential stocks that a fund whittles down to build its investment portfolio. This is typically a broad index, like the Russell 1000 Index. The selection universe should serve as a benchmark for the fund's performance. It may also offer insight into the fund's potential to outperform its parent index and/or Morningstar Category peers. For example, the payoff to most investment factors has historically been the greatest among the smallest stocks. This may be because they are more likely to be mispriced than larger stocks. So—all else equal—funds that start with a universe of large-and mid-cap stocks (as most multifactor funds do) likely have less potential to outperform than those that start with an all-cap universe or a group of small-cap stocks.

Which Factors Does the Fund Target?

There are only a handful of investment factors that truly matter. These include:

- Value (including dividend yield [As we have repeatedly shared, "dividend yield" is not a "Factor". Value should be targeted directly.])
- Small size (especially when combined with Value or Quality)
- Momentum (synergistic with Value)
- Quality (nebulously defined), and
- Low volatility

Each of these factors has been extensively and independently vetted in academic research and has tended to pay off in nearly every geographic market studied over the long term. But more important, there are reasonable economic explanations as to why each of these factors has paid off and will likely continue to do so. These include compensation for risk, behaviorally driven mispricing, and institutional frictions.

In contrast to the other four factors, low volatility doesn't aim to deliver higher returns than the market, but rather reduce risk and, in turn, potentially deliver better risk-adjusted performance than the market. While the low-volatility factor can help diversify the others, it can disproportionately affect a fund's performance (unless the fund explicitly limits active risk from this factor). It can also reduce the fund's long-term return potential.

While there are myriad other factors, they either are not widely accepted, are not investable at scale (like illiquidity [Vanguard's U.S. Liquidity Factor ETF (VFLQ), which is on our Watch List, is the only Fund we are aware of that targets the Liquidity Factor. It is one of six new ETFs that Vanguard introduced in February to join the Factor-based Fund parade, as we previously shared.]), or just repackage one or more of these core factors. It is best to stick to funds that target a combination of the core factors.

How Does the Fund Measure Its Targeted Factors?

There are many ways to measure stocks' exposure to each factor. Sometimes one metric or set of metrics will work better than another, but it isn't clear that there is an optimal way to define value (although, as we have previously shared, we do not use Funds for clients that rely solely on Book Value as their valuation metric). What matters is that the chosen metrics are:

- Simple
- Transparent, and
- Clearly representative of the investment style

The specific metrics chosen tend to move the needle less than whether the fund measures each stock's factor characteristics relative to its sector peers or the entire universe. There is a trade-off between these two

approaches. A sector-relative approach leads to less-pronounced sector biases than the universe-relative approach. Sector bias can be a source of uncompensated active risk that often isn't necessary to capture the targeted factor. A sector-relative approach can also improve comparability across stocks (particularly for the value and quality factors), as firms in the same sector tend to have more similar balance sheets and profitability than firms in different sectors. The drawback is that it may reduce the fund's factor purity, causing it to own stocks with weaker absolute factor characteristics than it would if it measured each stock against the entire universe.

One approach isn't clearly better than the other, but funds that don't control for sector differences would likely benefit from sector constraints, which can help improve diversification. After all, diversification is one of the core reasons to own a multifactor fund.

How Does the Fund Combine Its Targeted Factors?

There are two main approaches to combining multiple factors in a portfolio: mixing and integration. Funds that follow the mixing approach split their portfolios into individual sleeves that each target a distinct factor. For example, if a fund uses the mixing approach to combine value and momentum, it might dedicate half the portfolio to targeting value stocks (ignoring their momentum characteristics) and the other half to momentum (ignoring value). (Alpha Architect's analysis, which we previously shared, of this specific issue with respect to combining Value and Momentum found that "mixing" provides superior returns with concentrated portfolios.) This approach is similar to combining individual factor funds, but it offers the advantage of lower turnover by allowing trades to partially offset as stocks move across sleeves.

The mixing approach is simple, transparent, and facilitates clean performance attribution, making it easy to gauge the impact of each factor on the fund's performance. That said, it can dilute the fund's overall factor exposures because there is usually little overlap between the holdings in the different sleeves.

Funds that use the integration approach can achieve stronger factor exposures. They don't necessarily target the stocks that score the best on any single factor. Rather, they pursue stocks with the best overall combination of factor characteristics. This allows them to allocate the entire portfolio to stocks with exposure to the targeted factors.

The downside of the integration approach is that it can lead to greater active risk, which increases both the potential for outperformance as well as underperformance. It is also more complex, and in some cases less transparent, than the mixing approach, making it harder to attribute portfolio performance to distinct factors.

How Aggressively Does the Fund Target the Factors?

Funds with greater exposure to their targeted factors have greater potential to outperform the market than their less-aggressive counterparts when those factors are in favor and greater risk of underperformance when they are not. Just as stocks don't always outperform bonds, even though they tend to do so over the long term, factors experience their own unique cycles of out- and underperformance versus one another and the broader market.

The risk of underperformance is a necessary trade-off to capture the performance advantages factors might offer.

Investors who are comfortable with the risk of underperforming a benchmark (active risk) to capture those potential return advantages should favor funds with pronounced exposure to their targeted factors. Funds with smaller factor exposures are probably more suitable for those who prefer to limit active risk while keeping the door open to the potential for modest outperformance.

The strength of a multifactor fund's factor exposures is driven by its:

- Stock-selection threshold
- Weighting approach
- Portfolio constraints
- Rebalancing frequency, and
- Factor-timing adjustments (if applicable)

Portfolios with higher thresholds for stock selection should have higher factor exposures and more compactness than those with less-demanding criteria. For example, if a fund assigns composite factor scores to all stocks in its selection universe and targets the highest-ranking third, it should have greater exposure to its targeted factors than a fund that filters out the lowest-ranking third.

Funds can also strengthen their factor exposures through their stock-weighting approach. Those that incorporate the strength of each holding's factor characteristics into their weightings tend to have more-pronounced factor exposures than funds that don't. Constraints on sector, country, and stock weightings, turnover, and risk are often beneficial (more on that later), but they can also reduce the strength of a fund's factor exposures by causing it to own stocks with weaker absolute factor characteristics than it otherwise would.

More-frequent portfolio rebalancing tends to strengthen a fund's factor exposures. Quickly removing stocks whose factor characteristics have weakened and replacing them with stocks that look better on those metrics can help keep these funds homed in on their targeted factors. However, more turnover also leads to higher transaction costs, so it is important to understand how the index balances these considerations. (Since the Momentum Factor, when properly applied, results in high turnover, it is best accessed through a tax efficient ETF.)

Some funds (that HCM doesn't currently use for clients or even track) explicitly seek to time their factor exposures (an ongoing debate, most prominently between Research Affiliates' Rob Arnott and AQR's Cliff Asness, that we have previously shared) based on forecasts of how each factor is expected to perform going forward. The larger these tactical adjustments are, the more aggressive the fund tends to be.

Measuring How Aggressively a Fund Pursues Factors

To get a better handle on how aggressively a fund pursues its targeted factors, it is useful to evaluate its active risk. Funds with greater active risk tend to be more aggressive. There are two ways to measure a fund's active risk relative to its starting universe: tracking error and active share. Tracking error shows how the fund's construction approach has affected its performance. Active share shows how different the fund's holdings are from its starting universe.

Directionally, active share tends to line up with tracking error, though factor funds with low active share can still exhibit a fair bit of tracking error. When these signals conflict, tracking error is usually more informative. Tracking error also tends to be a more reliable indicator for funds with higher turnover, where the current holdings may not reflect what the fund will own in the future.

While active risk is a good proxy for the strength of a fund's factor tilts, it does not directly measure them. There are two ways to directly measure the strength of a fund's factor exposures: holdings-based analysis and returns-based analysis (factor regression). Holdings-based analysis compares how the portfolio's holdings stack up on the fund's targeted metrics against a market-cap-weighted benchmark. For example, if a fund tilts toward value and smaller-cap stocks, it can be helpful to compare the average price/earnings and market capitalization of its holdings against those of its starting universe. Factor regression analysis is a complementary tool that shows how the fund's performance was influenced by its factor tilts. ...

Are There Any Constraints on the Portfolio?

The most common portfolio constraints applied by multifactor funds include limits on sector weightings, stock weightings, country weightings, risk, and turnover. These constraints can help improve diversification, reduce risk, and reduce transaction costs. However, they also reduce a portfolio's exposure to the factors it targets by causing it to own stocks with weaker factor exposures than it otherwise would to stay within the limits set by the constraints.

Not all multifactor funds apply such constraints, though it is typically preferable to put limits on sector and country weightings. These are sources of active risk that often are not necessary to capture the targeted factors, and historically they have not been well compensated (unless they were driven by momentum).

The Big Picture

Multifactor funds require a similar level of due diligence to traditional actively managed funds. Resist the urge to assess a fund's merit solely on its performance. A robust investment process is far more important, though it is more difficult to evaluate. The key things are to be comfortable with the level of active risk the fund is taking, to stay diversified, and to avoid paying too much. ...

Although we don't consider it a tool for "reducing volatility", we have repeatedly stressed the importance of "International Diversification".

I Don't Feel Overweight

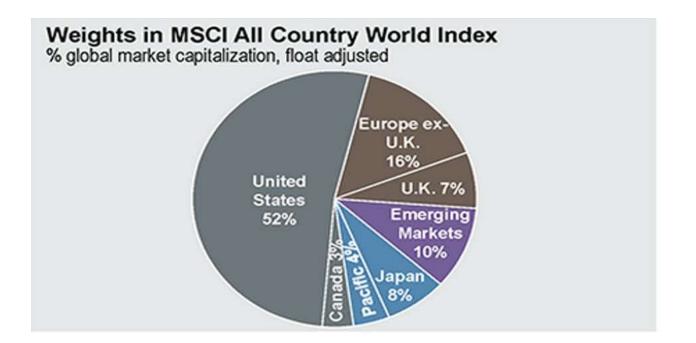
July 8, 2019

... I've been very vocal the last few years about the importance of global investment diversification, yet most Americans continue to allocate 80% to US stocks.

Let me explain, with some help from Bridgewater, why that is a horrible, and easily avoidable mistake.

How do I know you put 80% in the US? I wrote a book on stock market valuations (free here: "Global Value"), and used to give speeches and ask people the same question. We'd collect the responses and the answer was always the same: 80%.

If you look at the global stock market weighted by size, the US is only about half, but most of you invest 80%. (via JP Morgan)



This extreme overweight even has a behavioral description: home country bias. This happens all around the world and is even more egregious elsewhere since most countries have a much smaller % of total market cap. (via Vanguard)



Figure 5. Equity market home bias by country

If you're investing 80% that means you are making a massive active bet that that US stock market will outperform the rest of the world. (Pat yourself on the back if you've been lucky and done this the past 10 years). So why am I pounding the table that this is such a bad idea?

Over the past 70 years the US stock market has been a darling, outperforming foreign stocks by 1% per year. \$10k invested in US stocks in 1950 turned into \$14 million vs. only \$8m in foreign stocks. Want to know how much of that outperformance has come since 2009?

All of it!

This has led the US to where we are today with the US stock market as the largest in the world, by far. But the largest stocks/countries/sectors usually underperform going forward. The culprit is market cap weighting.

This is "the market" according to the TRUE passive investor. But why is market cap weighting sub-optimal?

Here's a chart from Ned Davis that compares the S&P 500 to investing in the largest stock in the market at the time. It's a laundry list of the top American companies like Wal-Mart, Google, IBM, and Amazon.

And it's a HORRIBLE idea.



© Copyright 2018 Ned Davis Research, Inc. Further distribution prohibited without prior permission. All Fights Reserved. See NDFIDIsclaimer at www.ndr.com/copyright.html For data vendor disclaimers refer to www.ndr.com/vendorinfo/ It's just capitalism and its creative destruction and it's the way it should be. But there's also a flaw with market cap weighting in that there is no tether to fundamentals. So a market cap index often overweights expensive stocks.

Research Affiliates has some great research on the topic where they show investing in the largest stock in each market or sector goes on to underperform by 3 percentage points per year for a decade!

This is why almost ANY weighting methodology should outperform – including equal weight, value tilts, fundamental weight This matters ESPECIALLY right now as the US stock market is expensive.

So, the bad news, is the US is expensive on valuation....(2nd highest in the world.) The good news, most of the world is normal to cheap, and emerging markets are really cheap. ...

But you don't have to take my word for it, let's review a great new piece from Bridgewater: "Geographic Diversification Can Be a Lifesaver, Yet Most Portfolios Are Highly Geographically Concentrated"

A few quotes...

"In the past century, there have been many times when investors concentrated in one country saw their wealth wiped out by geopolitical upheavals, debt crises, monetary reforms, or the bursting of bubbles, while markets in other countries remained resilient."

"And no one country consistently outperforms, as outperformance can lead to relative overvaluation and a subsequent reversal...So geographic diversification has big upside and little downside for investors."

"To illustrate the impact of geographic diversification, we begin by looking at the characteristics of return streams from single countries relative to weighting a portfolio equally across countries, rebalancing annually."

"An investor concentrated in Russia or Germany in the early 20th century would have lost most or all of their wealth, while an equally weighted mix of the five countries shown below does almost as well as the best performer." ...

"The geographically diversified portfolios do so well because they minimize drawdowns, creating a much more consistent return stream that allows for faster compounding."

Me: The US stock market has underperformed equal weighting in 8 of 12 decades. Let that sink in if you plan on extrapolating recent outperformance!!!

"There are plenty of instances in which geographic diversification has been a lifesaver, preventing wealth from being wiped out...Most countries have worse drawdowns in their history than the equally weighted portfolio has ever had..."

Worst Equity Excess Return Drawdowns Across Countries (USD Terms)

Country	Data Starts	Period of Worst Drawdown	What Caused It To Happen	Years To Recover From Start of DD	Magnitude of Losses	Equal-Weight Returns During Country DD	
Switzerland	erland Jan 1966 2007 - 20		Global Financial Crisis	7	-51%	-49%	
Equal-Weight	Jan 1900	1929 - 1932	Great Depression	13	-66%	27 3	
Australia	Jun 1933	1969 - 1974	70s Inflation	10	-66%	-17%	
UK	Jan 1900	1972 - 1974	70s Inflation	11	-72%	-20%	
Norway	Feb 1970	1974 - 1978	70s Inflation	16	-74%	-17%	
Japan	May 1949	1989 - 2003	Deflationary Grind	29 & Counting	-75%	-16%	
Brazil	Aug 1994	1994 - 1998	Balance of Payments Crisis	24 & Counting	-77%	23%	
Canada	Jan 1919	1929 - 1932	Great Depression	16	-79%	-65%	
New Zealand	Dec 1984	1986 - 1990	Currency & Constitutional Crisis	32 & Counting	-81%	-10%	
Sweden	Dec 1915	1917 - 1932	WWI and Great Depression	29	-81%	-30%	
Spain	Dec 1915	1973 - 1982	Political Turmoil/70s Inflation	26	-83%	-19%	
France	Jan 1900	1944 - 1950	WWI	15	-83%	4195	
Taiwan	Jan 1988	1990 - 2001	Asian Financial Crisis	29 & Counting	-85%	0%	
United States	Jan 1900	1929 - 1932	Great Depression	16	-85%	-64%	
Italy	Jan 1948	1960 - 1977	Political Turmoil ("Years of Lead")	59 & Counting	-87%	49%	
Korea	Jan 1965	1989 - 1998	Asian Financial Crisis	30 & Counting	-91%	33%	
Germany	Jan 1900	1912 - 1923	WWI	47	-99%	-62%	
Russia	Jan 1900	1912 - 1918	WWI and Bolshevik Revolution	Never	-100%	-31%	

My Summary:

The US opportunity set is poor

Diversifying globally can save your butt

Investors should move to a minimum 50% US / 50% Foreign stock (Our current recommended allocation to Developed Markets outside the US is 30%, with 0% passive allocation to Emerging Markets.)

Consider adding additional value (1 of the 5 factors we invest across) or other tilts like equal weight (this is uncomfortable for some)

Relax and sleep tight!

The case for European equities

Russ Koesterich, CFA July 18, 2019

Despite structural regional challenges, Russ provides insight on several factors that support European equities.

With the S&P 500 up nearly 20% year-to-date, U.S. investors can be forgiven for maintaining a home country bias. Consistent with the post-crisis norm, 2019 is shaping up to be another year when U.S. equities beat the rest of the world.

That said the case for international diversification remains sound, in part because other markets are also producing stellar returns. Year-to-date, some of the Chinese equity indices are up more than 20%. And to many investors' surprise, another bright spot is Europe (see Chart 1). While not quite keeping pace with the U.S., European equities are up 15.5% according to the MSCI Europe Index (in dollar terms). For investors under invested in international stocks, Europe is worth another look.

While there are challenges, including structurally lower growth, there are several factors favoring European equities, including: attractive valuations, generous dividends, low growth expectations, the global scale of Europe's largest companies, and finally the relative dovishness of the European Central Bank (ECB).

Tailwinds for European Equities

European stocks trade at 13-14x next year's earnings, cheap relative to nearly 18x for the S&P 500. Europe also scores much better on dividend income. Dividend yields are approximately 3.5% for the continent and 4.5% for the United Kingdom, nearly double the 1.8% on the S&P 500. The yield differential is particularly relevant given that last year's backup in interest rates has reversed. In a world in which approximately \$13 trillion of sovereign debt trades with a *negative interest* rate, a 3-4% dividend yield is no trivial thing.

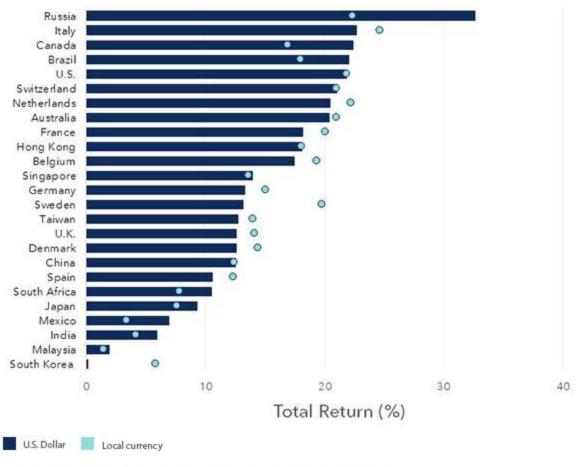
And while Europe is still struggling to grow, this dynamic appears well discounted. The Citi European Economic Surprise Index is close to flat. In contrast, the U.S. economic surprise index is negative and near a two-year low, meaning economic data is coming in worse than expected. To be clear, this doesn't mean that the U.S. will grow slower than Europe, but that *relative to expectations* European growth is coming in mostly better than in the United States.

Even if European growth remains soft, European equities can still perform. **The reason:** European indices are more exposed to *global* rather than *local* growth. Most of the big names in the index are global champions, such as Nestle in packaged foods, or Royal Dutch Shell in energy. The fortunes of these companies are more tied to global conditions rather than local ones.

Finally, there is the ECB. Year-to-date, equity markets are being driven by easier financial conditions and the hope for yet more central bank stimulus. Given soft growth and persistently below target inflation, the ECB is most likely to deliver on investor expectations. Most interestingly, further stimulus may include a return to the bank's asset purchase program. As my colleague Rick Rieder has suggested, this may even involve the eventual purchase of equities, as the Bank of Japan has been doing for years.

The Bottom Line

Europe has its challenges, but its stocks also possess some fairly consequential tail winds.



Country equity performance - year to date

Source: Refinitiv DataStream, MSCI and BlackRock Investment Institute. July 12, 2019

Notes: The bars show the performance of MSCI country indexes in U.S. Dollar terms year to date. The dots show the performance in local currency. The countries shown are the largest 25 by market cap as of June 2015.

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