

Smart Portfolio Construction: Is My Portfolio Over-Diversified?

By: Jonathan F. Justice & Larry McKay

The Buffet

As children, we learn there can be “too much of a good thing.” Gummy Bears, Peanut M&Ms and salt-and-vinegar potato chips come to mind as tragic casualties of this reality. As we age and mature, we become selective, discerning and opt for “quality over quantity” in many respects. Yet, when it comes to managing our investments, why is it that often we find our portfolios resemble an over-diversified all-you-can-eat buffet rather than a high-quality, chef-curated meal of complementary flavors?

The current over-diversification of investment portfolios is a result of several factors: hyperbolic misapplication of Modern Portfolio Theory, investor fear following the 2007-2008 Financial Crisis and an ensuing bumper crop of exchange traded funds (ETFs) and mutual funds. The latter has provided investors with seemingly limitless access not only to the broad market but also, and conversely, to the narrowest of sectors, capitalizations, geographies and styles—the all-you-can-eat buffet of investment options.

Modern Portfolio Theory (MPT), developed by economist Harry Markowitz in 1952, proposed that a diversified portfolio of lowly-correlated assets would produce an optimal “risk adjusted” outcome. In such a portfolio, Markowitz proffered, higher returns could be achieved without taking a commensurate amount of risk; in

fact, MPT implies that greater diversification results in lower risk, which is to say a lower variance of returns.

Coming out of the Great Recession (2007-2009), investors were understandably nervous: investor fear, measured by the VIX (volatility index), reached an all-time high in November 2008 (topped only in March 2020 at the beginning of the COVID-19 pandemic). As the recovery ensued in 2009, investors began to oversubscribe to the notions of MPT as investment companies opportunistically rolled out thousands of new ETFs. In 2009 globally, there were fewer than 2,000 ETFs, and by 2020 over 7,600 ETFs were available to investors⁽¹⁾ Demand for these baskets of stocks, bonds and other assets has been insatiable, and net global ETF assets have soared from just over \$1 trillion in 2009 to over \$9 trillion in 2021.⁽²⁾

Over the past several decades, portfolio construction that at first seemed sensible, if not ostensibly safer, came to resemble that all-you-can-eat buffet. Portfolios became collections of every asset class and sub-asset class imaginable, sometimes even with multiple funds of the same assets and frequently assembled with miniscule allocations to individual securities, funds and managers. The result: many investors own a model portfolio, or a version of one, that yields little more than market beta (i.e. market risk) and

¹Statista, “Number of exchange traded funds (ETFs) worldwide from 2003 to 2020,” <https://www.statista.com/statistics/278249/global-number-of-etfs/>, © Statista 2021

²Wursthorn, Michael. August 12, 2021, 7:59 AM ET. “Global ETF Assets Hit \$9 Trillion.” The Wall Street Journal. <https://www.wsj.com/articles/global-etf-assets-hit-9-trillion-11628769548>

leaves investors exposed to unmitigated systematic risk.

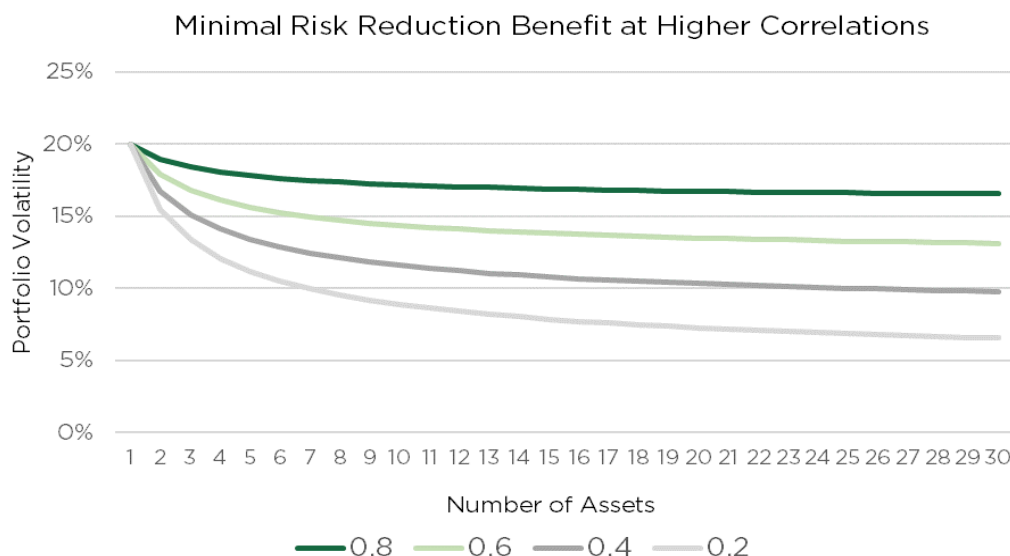
The Point of Diminishing Returns

Markowitz's key to diversification lies in the relative correlation, or lack thereof, of assets to one another. A notable problem with investing in today's capital markets is that most assets have some degree of correlation to U.S. Large Cap stocks. While government issued bonds tend to offer the highest degree of negative correlation to the broad, domestic stock market⁽³⁾, they primarily serve as a resource for wealth preservation and volatility dampening. For a portfolio with any objective north of stable value, assets used to construct that portfolio are likely to be correlated, at least to some degree, to large cap U.S. stocks

As the chart below illustrates, the higher the correlation of assets within a portfolio, the lower the rate of risk reduction as assets are added. For the portfolio comprising the lowest

correlation of assets (coefficient of 0.2—light gray line at bottom) and the most dramatic initial risk reduction as assets are added, risk reduction flattens significantly after only about 10 assets. To apply this to portfolio construction: there is little difference in risk reduction between a portfolio where allocation per asset is at 10% (10 assets) versus a portfolio with an allocation-per-asset of 3.33% (30 assets). To put it another way, while adding assets does likely increase market beta and reduce the possibility of outperformance, an over-abundance of assets does not necessarily result in a meaningful reduction in portfolio volatility. If, therefore, the benefits of diversification level off as assets are added—maybe it's not such a good idea to try everything on the buffet—how should investors construct their portfolios? The answer: Smart Portfolio Construction.

Correlation is measured on a scale of -1.0 – 1.0: negative correlation means that assets tend to move in opposite directions; a correlation of zero means assets have no relationship to one another; positive correlation means that assets behave similarly.



³Arnott, Amy C.. July 19, 2020. "Diversify, but Not Too Much." © 2021 Morningstar, Inc. <https://www.morningstar.com/articles/988703/diversify-but-not-too-much>

Smart Portfolio Construction: The Chef's Meal

Smart Portfolio Construction is driven by investment objectives with a focus on high quality assets and high conviction investing. Adhering to those investment objectives, **the difference between optimal and sub-optimal asset allocation is the flexibility to invest in anything without the compulsion to be invested in everything.**

Of course, the success of Smart Portfolio Construction lies in **establishing meaningful allocations** not only to asset classes but also to underlying securities. While the key to reducing risk is in constructing a portfolio of lowly correlated assets, a portfolio of too many assets, regardless of their relative correlation, delivers primarily beta and leaves limited potential for outperformance.

Optimized Asset Allocation
"The Chef's Table"

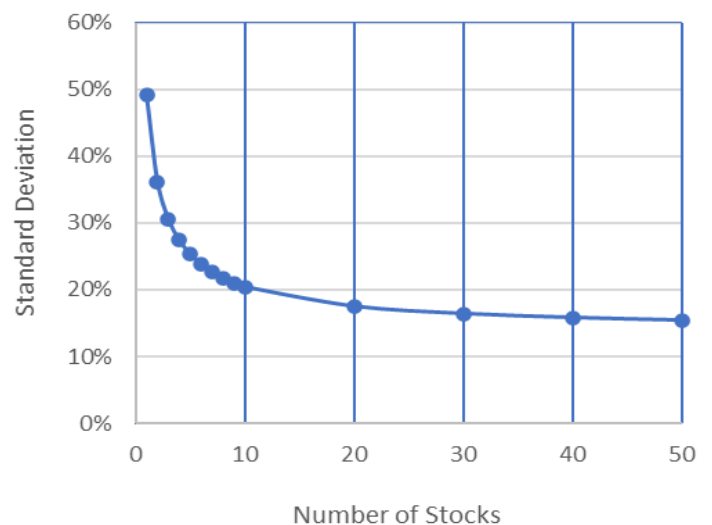


Sub-Optimal Asset Allocation
"The Buffet"



Determining meaningful allocations within a portfolio will be driven by investor goals: asset classes selected should serve as resources for specific purposes, ranging from liquidity and preservation to long-term growth and legacy goals. Selecting underlying securities and managers to represent these asset classes demands a rigorous process that begins with macro- and market-outlooks, qualitative and quantitative screening, and a continuum of fundamental analysis and pro-active manager oversight.

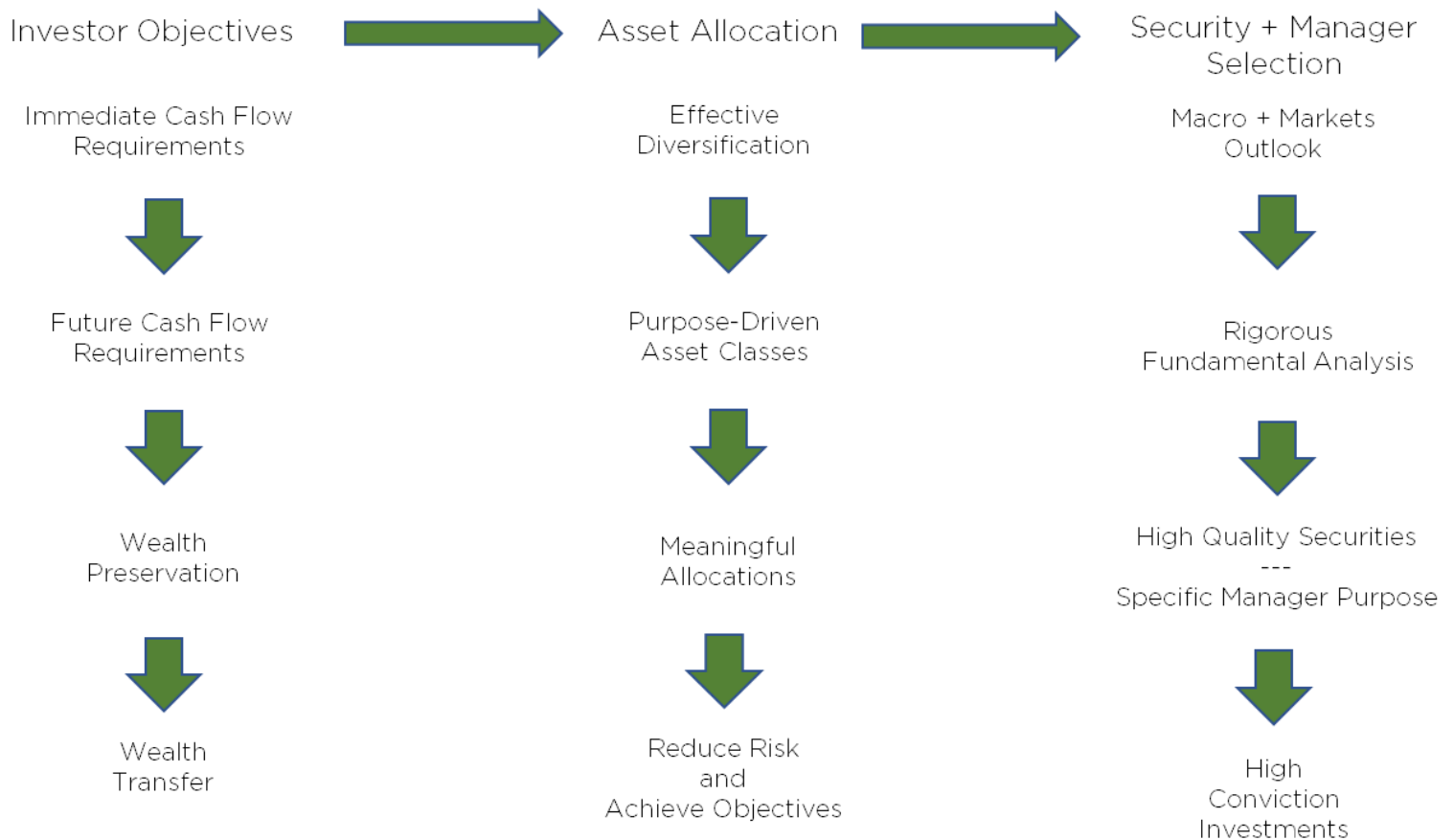
Again, as with constructing a portfolio of carefully selected asset classes, risk reduction is furthered by adding underlying individual securities—but only up to a point. Using a hypothetical stock portfolio as an example, a single stock within a portfolio carries a standard deviation (i.e. risk) of nearly 50%. With each additional stock added, that portfolio's risk declines significantly up to about 20 stocks. Risk continues to decline for a portfolio that holds as many as 40 stocks, but after that, the increased benefit of risk reduction is nearly flat.



Ingredients for Success: Portfolio Construction at Chilton Trust

At Chilton Trust, we recognize that the real harm of over-diversification is when portfolio construction is driven by a generic goal of “filling buckets” and “gaining exposure” rather than by highly personalized investor objectives. We believe that diversification has its benefits but clearly its limits, as well. While today’s investor has the broadest possible menu of investment vehicles from which to choose, selecting them all does not necessarily yield the most palatable of

portfolios. Following a thoughtful and goal-oriented process where the focus is on quality over quantity and investments are made with the highest conviction, portfolio construction becomes smart and customized to the investor—the asset classes and the underlying securities then become a dish of harmonious purposes working together to achieve specific investor goals.





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Mr. Justice is a Managing Director & Senior Advisor at Chilton Trust. With over 20 years of experience, Jonathan advises individuals, families, foundations and nonprofit institutions across a range of financial disciplines, including investment management, trust and estate planning, credit strategies, financial planning, philanthropic planning, fiduciary appointments, life insurance and art/collectibles management.

Prior to joining Chilton Trust, Jonathan was a Managing Director and wealth advisor at Truist Wealth and previously at U.S. Trust. Earlier in his career, Jonathan was a Vice President in the Trusts, Estates & Appraisals division of Sotheby's auction house, and he continues to advise clients and professional peers on the management of tangible assets.

Jonathan lives with his wife and two children in Short Hills, NJ, where he currently serves as Executive Director of the Millburn-Short Hills Lacrosse Club, Inc. Jonathan is a member of the estate planning councils of New York City, Greater New Jersey and Bergen County, the latter where he is a Past-President.

Jonathan earned his A.B. in English with Honors in Creative Writing and a Minor in Art History from the University of North Carolina at Chapel Hill where he attended as a Morehead Scholar. Jonathan has earned the designation of Certified Trust and Fiduciary Advisor (CTFA) and has been named an Accredited Estate Planner (AEP®) by the National Association of Estate Planning Councils.



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Larry earned his MBA from the Sloan School of Business at the Massachusetts Institute of Technology and holds a B.S. from Virginia Tech. He has also received the Chartered Financial Analyst designation and is a member of the New York Society of Security Analysts.

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