WELLS FARGO
Investment Institute

March 2023

Using diversification to help manage risk and return

A prudent approach to investing over the long term

Tracie McMillion, CFA
Head of Global Asset Allocation Strategy

Michael Taylor, CFA
Investment Strategy Analyst

Veronica Willis
Global Investment Strategist

Stephanie Campbell
Business Growth Strategy Consultant

Key takeaways

Amid excessive volatility, elevated correlations between stocks and bonds, and growing concerns over an imminent recession, 2022 was a rough year for most asset classes. Many equity classes notched their worst year since 2008, and fixed income experienced losses not seen in four decades. Frontier Market Equity was the worst-performing asset class, followed closely by Developed Markets ex U.S. Fixed Income. Meanwhile, Commodities and Cash Alternatives were the only two positive performers for the year.

- Investing only in the top-performing asset class each year would likely generate the best returns; however, such a feat is extremely difficult, if not impossible, to do consistently, even for seasoned investors.
- Because forecasting market performance is challenging, we believe it's important to employ a diversified allocation in portfolios, even though it has historically produced lower returns than if you were able to pick the best performer in any given year.
- Among its potential benefits, we believe diversification is likely to generate more consistent returns. As a result, over the long term, a diversified allocation may increase more in value than one that produces more volatile returns, which is the likely result of holding a concentrated position in a single asset class. Of course, diversification does not guarantee investment returns or eliminate the risk of loss.

2022: A gloomy year for financial markets

Equity and fixed-income asset classes were down sharply.

Overall, Commodities generally outperformed equity and fixed-income asset classes, which were negatively impacted by the Federal Reserve's (Fed) tight monetary policy enacted to dampen inflation. Within equities, Developed Markets ex-U.S. Equities fared the best amidst weak equity returns following a sharp reversal in dollar strength in the fourth quarter. In general, fixed-income classes performed better than their equity counterparts for the first time since 2018, yet they still experienced significant losses. Even though fixed-income classes collectively fell less than equities in 2022, U.S. Treasuries saw their worst one-year performance ever recorded, with yields surging to their highest level since 2010. While most asset classes saw negative returns, Commodities was one of two classes that prevailed. Commodities' return was mainly driven by higher energy prices amid the Organization of Petroleum Exporting Countries and their allies (OPEC+) production cuts, energy supply constraints brought on by the Russian-Ukraine war, and imposed sanctions on Russian oil. Rounding out the year, U.S. assets snapped their strong 2020 – 2021 pandemic performance to notch their worst year since 2008 as inflation topped a 40-year high in June.

Many investors "watch the markets" by following the widely reported Dow Jones Industrial Average (DJIA) or the S&P 500 Index. If these market indicators are the only ones an investor considers, they can often miss what's happening in other markets, including overseas. That's because the world of investments is significantly more diverse than these two domestic large-cap equity indexes.

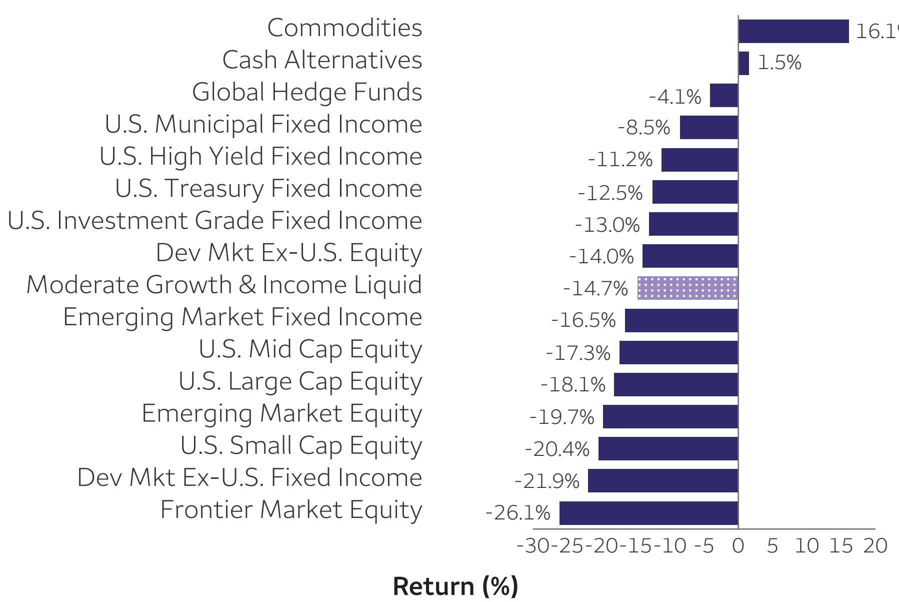
During some periods, certain asset classes will underperform these indexes, while in other periods the opposite holds true. This disparity in returns from one time period to the next often affects how a well-diversified allocation performs when compared with a single-market index.

History has shown that global markets at times can rise and fall in tandem, and when they have, returns across asset classes have tended to be similar. In this type of environment, overall index returns can be a fair representation of asset-class performance. However, at other times, global market performance can diverge, and the returns across regions and asset classes can vary greatly. In these years, some overseas markets can decline while U.S. markets rise. As a result, the DJIA or the S&P 500 Index likely will not be an accurate representation of global market performance.

Record-high inflation, seven interest-rate hikes, and the possibility of recession weighed on investors — affecting everything from consumer demand to corporate earnings. Many consumers doubled their savings during the COVID-19 lockdown, allowing them to splurge on wants more than needs as the economy reopened. As consumers flocked to make purchases, prices began to rise on limited inventories. Now as household savings are dwindling, companies are feeling the effects. Limited strength in the economy, signs of softness in consumer spending, and lower-than-expected corporate earnings have led to lower equity prices. Markets experienced periodic bouts of volatility while investors continued to assess the outcome of the pandemic's effects.

Looking back several years, individual asset-class returns have varied significantly and the U.S. indexes have generally outperformed international markets. Consequently, some investors may be surprised, or even disappointed, that their well-diversified portfolio has not reflected the S&P 500 Index's postcrisis performance but pleased that their portfolio has not experienced the same level of volatility as the U.S. equity markets.

Equities and fixed income fell in sync in 2022



Commodities and Cash Alternatives were the only asset classes to post positive returns in 2022, after a rough year of elevated inflation and aggressive Fed policy.

Sources: Wells Fargo Investment Institute and © 2023 – Morningstar Direct, All Rights Reserved.[1] Total return as of December 31, 2022. **Index return information is provided for illustrative purposes only.** Performance results for Moderate Growth and Income Liquid are calculated using blended index returns. Index returns do not represent investment performance or the results of actual trading. Index returns reflect general market results; assume the reinvestment of dividends and other distributions; and do not reflect deduction for fees, expenses, or taxes applicable to an actual investment. U.S. Small Cap Equity = Russell 2000 Index, Emerging Market Equity = MSCI Emerging Markets Index, U.S. Large Cap Equity = S&P 500 Index, U.S. Mid Cap Equity = Russell Midcap Index, Global Hedge Funds = HFRI Fund Weighted Composite Index , Dev Mkt Ex-U.S. Fixed Income = J.P. Morgan GBI Global ex-U.S. Index, Dev Mkt Ex-U.S. Equity = MSCI EAFE Index, U.S. Treasury Fixed Income = Bloomberg U.S. Treasury Index, U.S. Investment Grade Fixed Income = Bloomberg U.S. Aggregate Bond Index, U.S. High Yield Fixed Income = Bloomberg U.S. Corporate High Yield Index, Emerging Market Fixed Income = J.P. Morgan Emerging Markets Bond Index, U.S. Municipal Fixed Income = Bloomberg Municipal Index, Frontier Market Equity = MSCI Frontier Markets Index, Cash Alternatives = Bloomberg U.S. Treasury Bill (1–3 Month) Index, Commodities = Bloomberg Commodity Index. An index is unmanaged and not available for direct investment. Unlike most asset-class indexes, HFR Index returns reflect deduction for fees. Because the HFR indexes are calculated based on information that is voluntarily provided, actual returns may be higher or lower than those reported. **Past performance is no guarantee of future results.** Please see the end of the report for the risks associated with the representative asset classes and the definitions of the indexes. The composition of the Moderate Growth and Income Liquid allocation can be found on page 9. The asset-class risks associated with the allocation and the definitions of the indexes are provided at the end of the report.

Understanding diversification's potential benefits and limits

The beginning of the year often has investors anticipating the outlook for the financial markets.

Unfortunately, no one can know with certainty what the best- or worst-performing asset class will be in any given year. An investor who chooses to own only one asset — U.S. large-cap stocks, for example — with the hopes it will be the best performer that year could suffer disappointing results.

The bottom line is putting all your eggs in one proverbial basket can significantly impede investment results and the ability to achieve your long-term financial goals.

Experience has shown that long-term investors are more likely to achieve consistent results and grow their assets over time if they hold a diversified portfolio. We think that's because a diversified allocation is more likely to benefit from growth opportunities across many different asset classes, not just one or two.

A second benefit of diversification is it may potentially mitigate volatility of overall returns. The average return of an allocation filled with an assortment of diversified assets is likely to fluctuate less year to year than the annual returns of the individual assets that make up the portfolio.

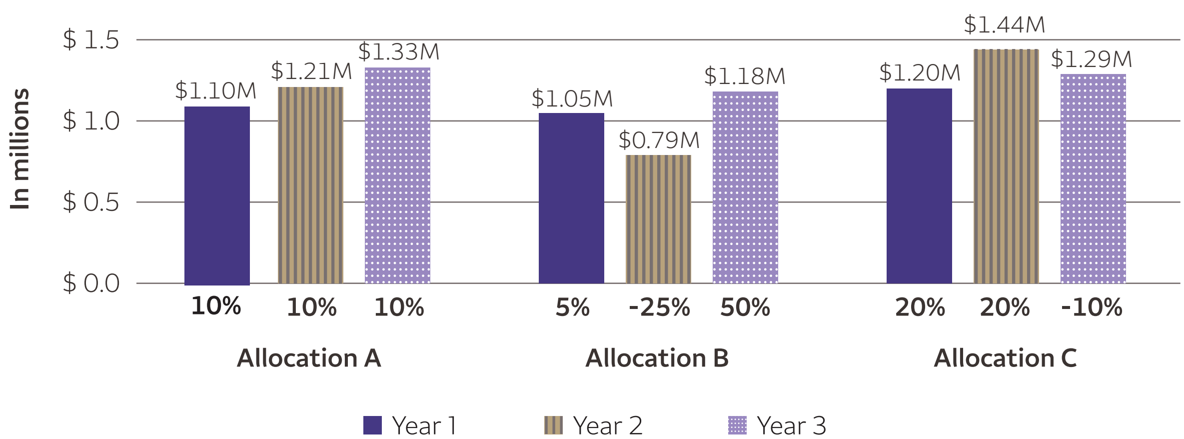
Once an asset allocation is set, we believe it's important to rebalance the portfolio, at least annually, back to the intended allocation if the markets have moved significantly or if the investor has experienced a noteworthy life event (such as a birth, death, or divorce). We believe that investors likely should be better off ignoring day-to-day fluctuations in the markets and focusing instead on their long-term plan.

As the chart below illustrates, an allocation with more consistent returns over time may increase more in value when compared with allocations that experience more volatile returns. All three allocations in this example started with a $1 million investment and provided a 30% total arithmetic return over three years, but Allocation A offered more consistent returns than the other two and, in the end, produced the better ending value. A portfolio that generates consistent returns (Allocation A) is likely to increase your wealth more than portfolios that produce more volatile returns (Allocations B and C).

A diversified portfolio's most important benefit may be the potential to mitigate the effects of unanticipated risks. Unexpected events can happen at any time and such developments typically affect some assets more than others. We believe the best approach for investors to deal with uncertainty is to hold a diversified portfolio that includes some asset classes that have tended to be less impacted by market surprises.

Of course, the notion of hedging against uncertainty comes with a trade-off. Holding a wide array of assets in a portfolio may help smooth out returns during periods of heightened market volatility; however, adding assets to a portfolio can increase the likelihood that some will not perform as well as others. Doing this could potentially dampen portfolio returns at times, particularly when markets are calm.

More consistent returns may produce better results over time



Initial investment = $1 million
Cumulative arithmetic return for all three allocations = 30%

Source: Wells Fargo Investment Institute

Information is for illustrative purposes only. It does not represent the performance of any investment. Exaggerated returns are used to illustrate difference in portfolio value and do not guarantee success in any investment strategy.

Focus on long-term goals

Investors should keep in mind that the potential benefits of diversification are often long term rather than short term in nature.

Generally speaking, however, investors tend to focus on how their portfolios perform on a shorter-term, year-to-year basis. They often compare their portfolio performance with the return of a popular market index (like the DJIA or the S&P 500 Index), which may, or may not, reflect the characteristics of their portfolio holdings or match their risk profile.

Unfortunately, assessing a diversified portfolio's return against a simple benchmark can be like comparing apples to oranges. Consequently, investors need to understand diversification's benefits along with its limitations. Specifically, we think they should recognize that a well-diversified portfolio, by definition, will not be the best-performing asset in any given year. Some assets will have higher returns than the average, and others will have lower returns. Of course, collectively, the weighted average of the individual returns will match the overall portfolio return in any given year.

Diversification's benefits historically tend to be long term

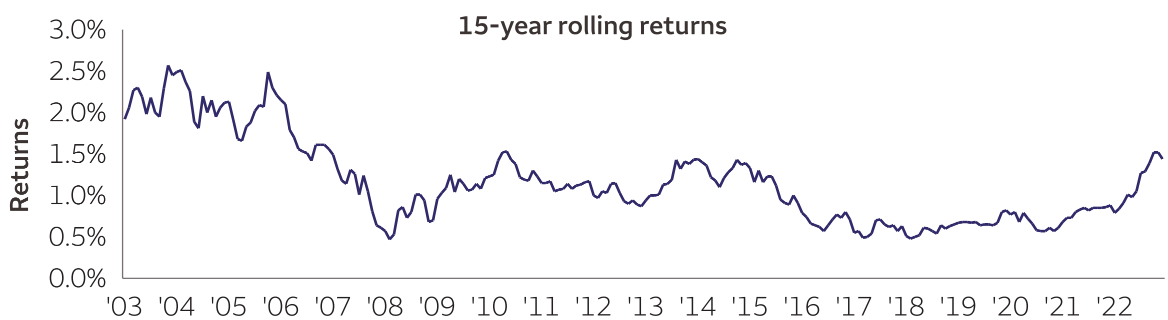
Comparing the two charts below helps demonstrate the importance of taking a longer- versus shorter-term perspective when looking at performance.

One-year rolling excess return (diversified allocation vs. simple global benchmark)

The chart shows that on a rolling one-year basis over a 20-year period, a diversified allocation consisting of many different asset classes has not always outperformed a simple global benchmark blend holding fewer assets.

15-year rolling excess return (diversified allocation vs. simple global benchmark)

On the other hand, the chart below shows that over a much longer rolling 15-year basis, a diversified allocation of many assets has consistently outperformed a simple global benchmark blend with fewer assets over the same period.



Sources: Wells Fargo Investment Institute and © 2023 – Morningstar Direct, All Rights Reserved.[1] December 31, 2022.

Diversified allocation: Target allocation is for a growth and income oriented investor of moderate risk tolerance.
The historical returns are dynamic strategic allocations, which change as needed with adjustments to the strategic allocations. Allocations are rebalanced quarterly. Allocation: Moderate Growth and Income Liquid is composed of: 2% Bloomberg U.S. Treasury Bills (1–3 Month) Index, 30% Bloomberg U.S. Aggregate Bond Index, 6% Bloomberg U.S. Corporate High Yield Bond Index, 5% JPM EMBI Global Index, 24% S&P 500 Index, 10% Russell Midcap Index, 6% Russell 2000 Index, 8% MSCI EAFE Index, 5% MSCI Emerging Markets Index, 4% Bloomberg Commodity Index.

Simple global benchmark: 55% MSCI All Country World Index, 45% Bloomberg Global Aggregate Index

Performance results are for illustrative purposes only. Index returns do not represent investment performance or the results of actual trading. Index returns reflect general market results; assume the reinvestment of dividends and other distributions; and do not reflect deduction for fees, expenses, or taxes applicable to an actual investment. Unlike most asset class indexes, HFR Index returns reflect deduction for fees. Because the HFR indexes are calculated based on information that is voluntarily provided, actual returns may be lower than those reported. An index is unmanaged and not available for direct investment. **Past performance does not guarantee future results.** Different investments offer different levels of potential return and market risk. Please see the end of the report for the descriptions of the risks associated with these asset classes and for definitions of the indexes.

The most widely used comparisons of historical returns may not always consider the reduced portfolio volatility diversification can offer. That's because portfolio performance is usually measured on the basis of total return and does not reflect the volatility of returns. For example, investors often select common benchmarks, such as the S&P 500 Index or the Dow Jones Industrial Average, to compare portfolio performance. A simple two- or three-asset-class benchmark may not have the same return as a well-diversified portfolio, especially in years when many assets in the portfolio do not move in tandem. This has been the case over the past few years.

Calendar-year asset-class and moderate growth and income (MG&I) allocation returns

Performance	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022
Best	Emg-Mkt Equity 18.6%	US Small Cap Equity 38.8%	US Large Cap Equity 13.7%	US Large Cap Equity 1.4%	US Small Cap Equity 21.3%	Emg-Mkt Equity 37.8%	Cash Alternative 1.8%	US Large Cap Equity 31.5%	US Small Cap Equity 20.0%	US Large Cap Equity 28.7%	Commod 16.1%"
	Emg-Mkt Fixed Inc 18.5%	US Mid Cap Equity 34.8%	US Mid Cap Equity 13.2%	Emg-Mkt Fixed Inc 1.2%	High Yield Fixed Inc 17.1%	Dev ex US Equity 25.6%	Inv-Grade Fixed Inc 0.0%	US Mid Cap Equity 30.5%	Emg-Mkt Equity 18.7%	Commod 27.1%	Cash Alternative 1.5%"
	Dev ex US Equity 17.9%	US Large Cap Equity 32.4%	**Mod Grwth Inc Portf 6.2%**	Inv-Grade Fixed Inc 0.5%	US Mid Cap Equity 13.8%	US Large Cap Equity 21.8%	Dev ex US Fixed Inc -1.7%	US Small Cap Equity 25.5%	US Large Cap Equity 18.4%	US Mid Cap Equity 22.6%	High Yield Fixed Inc -11.2%"
	US Mid Cap Equity 17.3%	Dev ex US Equity 23.3%	Inv-Grade Fixed Inc 6.0%	Cash Alternative 0.0%	US Large Cap Equity 12.0%	US Mid Cap Equity 18.5%	High Yield Fixed Inc -2.1%	Dev ex US Equity 22.7%	US Mid Cap Equity 17.1%	US Small Cap Equity 14.8%	Inv-Grade Fixed Inc -13.0%"
	US Small Cap Equity 16.3%	**Mod Grwth Inc Portf 13.7%**	Emg-Mkt Fixed Inc 5.5%	Dev ex US Equity -0.4%	Commod 11.8%	US Small Cap Equity 14.6%	US Large Cap Equity -4.4%	**Mod Grwth Inc Portf 19.5%**	**Mod Grwth Inc Portf 13.9%**	Dev ex US Equity 11.8%	Dev ex US Equity -14.0%"
	US Large Cap Equity 16.0%	High Yield Fixed Inc 7.4%	US Small Cap Equity 4.9%	**Mod Grwth Inc Portf -1.7%**	Emg-Mkt Equity 11.6%	**Mod Grwth Inc Portf 14.4%**	Emg-Mkt Fixed Inc -4.6%	Emg-Mkt Equity 18.9%	Dev ex US Fixed Inc 10.5%	**Mod Grwth Inc Portf 10.7%**	**Mod Grwth Inc Portf -14.7%"**
	High Yield Fixed Inc 15.8%	Cash Alternative 0.0%	High Yield Fixed Inc 2.5%	US Mid Cap Equity -2.4%	Emg-Mkt Fixed Inc 10.2%	Dev ex US Fixed Inc 9.9%	**Mod Grwth Inc Portf -4.9%**	Emg-Mkt Fixed Inc 14.4%	Dev ex US Equity 8.3%	High Yield Fixed Inc 5.3%	Emg-Mkt Fixed Inc -16.5%"
	Mod Grwth Inc Portf 12.5%	Inv-Grade Fixed Inc -2.0%	Cash Alternative 0.0%	US Small Cap Equity -4.4%	**Mod Grwth Inc Portf 9.0%**	Emg-Mkt Fixed Inc 9.3%	US Mid Cap Equity -9.1%	High Yield Fixed Inc 14.3%	Inv-Grade Fixed Inc 7.5%	Cash Alternative 0.0%	US Mid Cap Equity -17.3%"
	Inv-Grade Fixed Inc 4.2%	Emg-Mkt Equity -2.3%	Emg-Mkt Equity -1.8%	High Yield Fixed Inc -4.5%	Inv-Grade Fixed Inc 2.6%	High Yield Fixed Inc 7.5%	US Small Cap Equity -11.0%	Inv-Grade Fixed Inc 8.7%	High Yield Fixed Inc 7.1%	Emg-Mkt Fixed Inc -1.5%	US Large Cap Equity -18.1%"
	Dev ex US Fixed Inc 0.8%	Dev ex US Fixed Inc -5.1%	Dev ex US Fixed Inc -2.5%	Dev ex US Fixed Inc -4.8%	Dev ex US Fixed Inc 1.9%	Inv-Grade Fixed Inc 3.5%	Commod -11.2%	Commod 7.7%	Emg-Mkt Fixed Inc 5.9%	Inv-Grade Fixed Inc -1.5%	Emg-Mkt Equity -19.7%"
	Cash Alternative 0.1%	Emg-Mkt Fixed Inc -6.6%	Dev ex US Equity -4.5%	Emg-Mkt Equity -14.6%	Dev ex US Equity 1.5%	Commod 1.7%	Dev ex US Equity -13.4%	Dev ex US Fixed Inc 5.2%	Cash Alternative 0.5%	Emg-Mkt Equity -2.2%	US Small Cap Equity -20.4%"
Worst	Commod -1.1%	Commod -9.5%	Commod -17.0%	Commod -24.7%	Cash Alternative 0.3%	Cash Alternative 0.8%	Emg-Mkt Equity -14.2%	Cash Alternative 2.2%	Commod -3.1%	Dev ex US Fixed Inc -9.5%	Dev ex US Fixed Inc -21.9%"

- Moderate Growth and Income Liquid
- Cash Alternatives: Bloomberg U.S. Treasury Bill (1-3 Month) Index
- Commodities: Bloomberg Commodity Index
- Developed Market ex-U.S. Equity: MSCI EAFE (Europe, Australasia, Far East) Index
- Emerging Market Equity: MSCI Emerging Markets Index
- Investment Grade Fixed Income: Bloomberg U.S. Aggregate Bond Index
- High Yield Fixed Income: Bloomberg U.S. Corporate High Yield Bond Index
- Developed Market ex-U.S. Fixed Income: JP Morgan GBI Global ex-U.S. Index
- Emerging Market Fixed Income: JP Morgan EMBI Global Index
- U.S. Large Cap Equity: S&P 500 Index
- U.S. Mid Cap Equity: Russell Midcap Index
- U.S. Small Cap Equity: Russell 2000 Index

Sources: Wells Fargo Investment Institute and © 2023 – Morningstar Direct, All Rights Reserved.[1] As of December 31, 2022.

Moderate Growth and Income Liquid is composed of: 2% Bloomberg U.S. Treasury Bills (1–3 Month) Index, 30% Bloomberg U.S. Aggregate Bond Index, 6% Bloomberg U.S. Corporate High Yield Bond Index, 5% JPM EMBI Global Index, 24% S&P 500 Index, 10% Russell Midcap Index, 6% Russell 2000 Index, 8% MSCI EAFE Index, 5% MSCI Emerging Markets Index, 4% Bloomberg Commodity Index.

Index return information is provided for illustrative purposes only. Performance results for Moderate Growth and Income Liquid are calculated using blended index returns. Index returns do not represent investment returns or the results of actual trading nor are they forecasts of expected gains or losses a fund might experience. Index returns reflect general market results; assume the reinvestment of dividends and other distributions; and do not reflect deduction for fees, expenses, or taxes applicable to an actual investment. An index is unmanaged and not available for direct investment. Unlike most asset-class indexes, HFR Index returns reflect deduction for fees. Because the HFR indexes are calculated based on information that is voluntarily provided, actual returns may be higher or lower than those reported. **Past performance does not guarantee future results.** Different investments offer different levels of potential return and market risk. Please see the end of the report for the descriptions of the risks associated with these asset classes and for definitions of the indexes.

The “quilt chart” of yearly asset-class returns on page 9 shows a diversified allocation has not generated the highest return in any given year, but it also has not dropped from one of the best to one of the worst performers from one year to the next. In other words, the performance of a diversified allocation has been smoother over time than most individual asset classes.

So it all boils down to this: Historically, diversification has helped manage risk and return, but it did so at a potential cost. One way to calculate that cost is to look at the difference in any given year between a diversified allocation’s return and that of the year’s best-performing asset. Rather than diversifying, investors could potentially achieve better returns if they were able to pick the best-performing asset at the beginning of each year. But there’s the rub. Even seasoned investors find it difficult, if not impossible, to pick the best performer on a consistent basis. That’s a primary reason why we recommend investors diversify.

A final case for diversification

Investors face many types of risk and uncertainty. Although the equity market historically has trended upward, investors must frequently deal with market volatility. Market timing rarely works, and we do not suggest this approach for investors. Instead, we believe a strategic and tactical asset allocation strategy,* including a diversified portfolio and regular rebalancing, can offer an optimal approach for investors over the long term.

Performance measurement is also fundamental in determining a specific investment strategy’s effectiveness. Moreover, it is equally important to consider portfolio performance over the long term and not for a matter of weeks or months. Benchmarks are essential tools for measuring performance, but they must be selected carefully and match an investor’s risk profile.

> *“A diversified portfolio, coupled with regular rebalancing, can offer an optimal approach for investors over the long term.”*

*__Tactical asset allocation:__ Making short-term adjustments to asset-class weights based on shorter-term expected relative performance. Strategic asset allocation: An investor’s return objectives, risk tolerance, and investment constraints are integrated with long-term return assumptions to establish exposure to permissible asset classes.

About the authors

Tracie McMillion, *CFA, Head of Global Asset Allocation Strategy*

Tracie McMillion leads the development of global investment strategy. She oversees the creation of asset allocation recommendations and writes economic and market commentary and analysis. Prior to her current role, she served as an asset allocation strategist and a senior investment research analyst for Wells Fargo and predecessor firms.

Ms. McMillion earned a Bachelor of Arts in Economics and a Master of Business Administration from the College of William and Mary in Virginia. She is a CFA® charterholder. Ms. McMillion is located in Winston-Salem, North Carolina.

Michael Taylor, *CFA, Investment Strategy Analyst*

Michael Taylor is an investment strategy analyst for Wells Fargo Investment Institute. Mr. Taylor focuses on global asset allocation strategy and economic and market analysis. His work contributes to Wells Fargo Investment Institute publications. Mr. Taylor has more than 20 years of experience in financial services and has spent the past 19 years at Wells Fargo in various roles within wealth and brokerage.

Veronica Willis, *Global Investment Strategist*

Veronica Willis assists in research and development of asset allocation recommendations and analysis of financial markets. Prior to her current role, she served as a research analyst for strategy around developed and emerging countries, commodities, and currencies. She began her career at Wells Fargo in 2012 and is an active member of several employee resource networks including the Generation Connection, Women's Connection, and Black and African American Connection.

Ms. Willis earned a Bachelor of Arts in Mathematics with a concentration in Statistics and a Bachelor of Arts in Spanish with a minor in Economics from Washington University in St. Louis. She is based in St. Louis.

Stephanie Campbell, *Business Growth Strategy Consultant*

Stephanie Campbell is a Business Growth Strategy Consultant for Wells Fargo Investment Institute. In her role, she assists in the research and development of asset allocations as well as writes daily, weekly, and monthly market commentary for financial advisors and clients. Ms. Campbell earned a Bachelor of Business Administration in Finance from the University of Kentucky and a Master of Science in Finance from the University of Massachusetts – Boston. She is based in Charlotte, North Carolina.

Asset-class risks

Asset allocation, including statistical and tactical asset allocation, and diversification do not guarantee investment returns or eliminate risk of loss. All investing involves risks, including the possible loss of principal. There can be no assurance that any investment strategy will be successful. Investments fluctuate with changes in market and economic conditions and in different environments due to numerous factors, some of which may be unpredictable. Each asset class has its own risk and return characteristics. The level of risk associated with a particular investment or asset class generally correlates with the level of return the investment or asset class might achieve. Be sure you are aware of and understand all risks associated with a particular investment before investing. The risks associated with the representative index asset classes shown in this report include:

Alternative investments: Alternative investments trade in diverse complex strategies that are affected in different ways and at different times by changing market conditions. Strategies may, at times, be out of market favor for considerable periods with adverse consequences for the investor.

Cash Alternatives: Cash alternatives typically offer lower rates of return than longer-term equity or fixed-income securities and provide a level of liquidity and price stability generally not available to these investments. Some examples of cash alternatives include: Bank certificates of deposit; bank money market accounts; bankers' acceptances, federal agency short-term securities, money market mutual funds, Treasury bills, ultra-short bond mutual funds or exchange-traded funds and variable rate demand notes. Each type of cash alternatives has advantages and disadvantages which should be discussed with your financial advisor before investing.

Commodities: The commodities markets are considered speculative, carry substantial risks, and have experienced periods of extreme volatility. Commodities may be affected by changes in overall market movements, commodity index volatility, changes in interest rates, or other factors affecting a particular industry or commodity.

Equity securities: Stocks are subject to market risk, which means their value may fluctuate in response to general economic and market conditions, the prospects of individual companies, and industry sectors. The prices of small/mid-company stocks are generally more volatile than large-company stocks. They often involve higher risks because small and midsize companies may lack the management expertise, financial resources, product diversification, and competitive strengths to endure adverse economic conditions.

Fixed income: Investments in fixed-income securities are subject to market, interest rate, credit/default, liquidity, inflation, and other risks. Bond prices fluctuate inversely to changes in interest rates. Therefore, a general rise in interest rates can result in a decline in the bond's price. Credit risk is the risk that an issuer will default on payments of interest and principal. High-yield fixed-income securities are considered speculative, involve greater risk of default, and tend to be more volatile than investment-grade fixed-income securities. All fixed-income investments may be worth less than their original cost upon redemption or maturity. U.S. government securities are backed by the full faith and credit of the federal government as to payment of principal and interest if held to maturity. Although free from credit risk, they are subject to interest rate risk.

Foreign/emerging markets: Investing in foreign securities presents certain risks not associated with domestic investments, such as currency fluctuation, political and economic instability, and different accounting standards. This may result in greater share price volatility. These risks are heightened in emerging markets.

Index definitions

An index is unmanaged and unavailable for direct investment.

Bloomberg Global Aggregate Bond Index provides a broad-based measure of the global investment-grade fixed-rate debt markets. It is comprised of the U.S. Aggregate, Pan-European Aggregate, and the Asian-Pacific Aggregate Indexes. It also includes a wide range of standard and customized subindexes by liquidity constraint, sector, quality, and maturity.

Bloomberg U.S. Aggregate Bond Index is composed of the Bloomberg U.S. Government/Credit Index and the Bloomberg U.S. Mortgage-Backed Securities Index and includes Treasury issues, agency issues, corporate bond issues, and mortgage-backed securities.

Bloomberg U.S. Aggregate 5-7 Year Bond Index is composed of the Bloomberg U.S. Government/Credit Index and the Bloomberg U.S. Mortgage-Backed Securities Index and includes Treasury issues, agency issues, corporate bond issues, and mortgage-backed securities with maturities of 5-7 years.

Bloomberg U.S. Aggregate 10+ Year Bond Index is unmanaged and is composed of the Bloomberg U.S. Government/Credit Index and the Bloomberg U.S. Mortgage-Backed Securities Index and includes Treasury issues, agency issues, corporate bond issues, and mortgage-backed securities with maturities of 10 years or more.

Bloomberg U.S. Corporate High Yield Bond Index covers the U.S.-dollar-denominated non-investment-grade, fixed-rate, taxable corporate bond market. Securities are classified as high yield if the middle rating of Moody's, Fitch, and S&P is Ba1/BB+/BB= or below. Included issues must have at least one year until final maturity.

Bloomberg U.S. Municipal Index represents municipal bonds with a minimum credit rating of at least Baa, an outstanding par value of at least $3 million, and a remaining maturity of at least one year. The index excludes taxable municipal bonds, bonds with floating rates, derivatives, and certificates of participation.

Bloomberg U.S. Treasury Bill (1-3M) Index is representative of money markets.

Bloomberg U.S. Treasury Index is the U.S. Treasury component of the U.S. Government Index. The index consists of public obligations of the U.S. Treasury with a remaining maturity of one year or more.

Bloomberg Commodity Index is a broadly diversified index composed of 22 exchange-traded futures on physical commodities and represents 20 commodities weighted to account for economic significance and market liquidity.

Dow Jones Industrial Average is an unweighted index of 30 "blue chip" industrial U.S. stocks.

HFRI Fund Weighted Composite Index is a global, equal-weighted index of over 2,000 single-manager funds that report to HFR Database. Constituent funds report monthly net-of-all-fees performance in U.S. dollars and have a minimum of $50 million under management or a 12-month track record of active performance. The HFRI Fund Weighted Composite Index does not include funds of hedge funds.

Note: HFRI indexes have limitations (some of which are typical of other widely used indexes). These limitations include survivorship bias (the returns of the indexes may not be representative of all the hedge funds in the universe because of the tendency of lower-performing funds to leave the index); heterogeneity (not all hedge funds are alike or comparable to one another, and the index may not accurately reflect the performance of a described style); and limited data (many hedge funds do not report to indexes, and, therefore, the index may omit funds, the inclusion of which might significantly affect the performance shown). The HFRI indexes are based on information self-reported by hedge fund managers that decide on their own, at any time, whether or not they want to provide, or continue to provide, information to HFR Asset Management, L.L.C. Results for funds that go out of business are included in the index until the date that they cease operations. Therefore, these indexes may not be complete or accurate representations of the hedge fund universe and may be biased in several ways. Returns of the underlying hedge funds are net of fees and are denominated in USD.

JP Morgan Global ex-U.S. Index (JPM GBI Global ex-U.S.) is a total return, market-capitalization-weighted index, rebalanced monthly.

JPM EMBI Global Index is a U.S.-dollar-denominated, investible, market-cap-weighted index representing a broad universe of emerging market sovereign and quasi-sovereign debt. While products in the asset class have become more diverse, focusing on both local currency and corporate issuance, there is currently no widely accepted aggregate index reflecting the broader opportunity set available, although the asset class is evolving. By using the same index provider as the one used in the developed market bonds asset class, there is consistent categorization of countries among developed international bonds (ex. U.S.) and emerging market bonds.

MSCI All Country World Index (MSCI ACWI) is a free-float-adjusted market-capitalization-weighted index that is designed to measure the equity market performance of 23 developed and 23 emerging markets.

MSCI EAFE Index is a free-float-adjusted market-capitalization-weighted index designed to measure the equity market performance of developed markets, excluding the U.S. and Canada.

MSCI Emerging Markets Index is a free-float-adjusted market-capitalization-weighted index designed to measure equity market performance of emerging markets.

MSCI Frontier Markets Index is a free-float-adjusted market-capitalization-weighted index that is designed to measure equity market performance of frontier markets. The MSCI Frontier Markets Index consists of 24 frontier market country indexes.

MSCI makes no express or implied warranties or representations and shall have no liability whatsoever with respect to any MSCI data contained herein. The MSCI data may not be further redistributed or used as a basis for other indexes or any securities or financial products. This report is not approved, reviewed, or produced by MSCI.

Russell 1000® Index measures the performance of the 1,000 largest companies in the Russell 3000 Index, which represents approximately 90% of the total market capitalization of the Russell 3000 Index. The Russell 3000® Index measures the performance of the 3,000 largest U.S. companies based on total market capitalization, which represents approximately 98% of the investable U.S. equity market.

Russell 2000® Index measures the performance of the 2,000 smallest companies in the Russell 3000® Index, which represents approximately 8% of the total market capitalization of the Russell 3000 Index.

Russell Midcap® Index measures the performance of the 800 smallest companies in the Russell 1000® Index, which represent approximately 25% of the total market capitalization of the Russell 1000® Index.

S&P 500 Index is a market-capitalization-weighted index composed of 500 stocks generally considered representative of the U.S. stock market.

1. The information contained herein: (1) is proprietary to Morningstar and/or its content providers; (2) may not be copied or distributed; and (3) is not warranted to be accurate, complete, or timely. Neither Morningstar nor its content providers are responsible for any damages or losses arising from any use of this information.

Investment expertise and advice to help you succeed financially

Wells Fargo Investment Institute is home to 145+ investment professionals focused on investment strategy, asset allocation, portfolio management, manager reviews, and alternative investments. Its mission is to deliver timely, actionable advice that can help investors achieve their financial goals.

For assistance with your investment planning or to discuss the points in this report, please talk to your investment professional.

Follow us on Twitter at @WFInvesting