INVESTMENTS
& WEALTH MONITOR

A reprinted article from September/October 2021

Fixing the 40: A New Perspective on the Traditional 60/40 Portfolio

By Brian Griggs, CFA®, FRM, and Quinn Brody

Fixing the 40

A NEW PERSPECTIVE ON THE TRADITIONAL 60/40 PORTFOLIO

By Brian Griggs, CFA®, FRM, and Quinn Brody

The traditional allocation of 60-percent equities and 40-percent fixed income, hereafter referred to as "the 60/40," historically has provided investors with a solid construct for building portfolios—and for the most part, it has worked. In the past decade,[1] 60/40 investors have experienced annualized returns of about 7.3 percent with a portfolio volatility of 9.0 percent, translating to a Sharpe ratio of 0.78 (see figure 1).

Looking forward, the 60/40—specifically, 60-percent MSCI ACWI Index and 40-percent Bloomberg Barclays U.S. Aggregate Index—faces the following hurdles to repeating this past performance:

Higher inflation: As inflation materializes, it could challenge the negative correlation between equities and fixed income that 60/40 investors have become accustomed to.

Persistently low rates: The approximately 40-year decline in interest rates, which has been a tailwind for financial assets, particularly rate-sensitive fixed income, may be over.

Low yields and valuations: Low fixed income yields and stretched equity valuations imply lower forward returns.

Our expected compounded, i.e., geometric, return for the 60/40 is 4.6 percent annualized over the next decade, based on an assumed return of 6.0 percent for global equities and 1.5 percent for aggregate bonds.[2]

EXECUTIVE SUMMARY

- The 60/40 construct is likely to produce less return, on both an absolute and risk-adjusted basis, compared to its own history.
- Although this issue can be addressed by adjusting the weights between equities and fixed income, it faces a trade-off: To generate higher returns, allocators may have to take more risk.
- A better way to address the issue is by adjusting and expanding the fixed income portion of a portfolio to include a more diversified and higher yielding set of assets while maintaining risk constraints.
- Using risk-factor and scenario analysis can help to ensure proper diversification rather than just maximizing for expected Sharpe ratio and can help to set expectations and ensure comfort with the risk exposures within fixed income.

HOW DO WE FIX THE 40?

Depending on the exact nature of an investor's concerns and goals, several options are available to help re-orient fixed income exposure to meet intended outcomes.

We introduce three hypothetical portfolios, each allocating to a more diversified, higher yielding combination of fixed income sectors (see figure 2):

- Downside Protector—63-percent allocation to fixed income
- Efficiency Improver—52-percent allocation to fixed income
- Return Seeker—40-percent allocation to fixed income

Yes, interest rates might be higher in 10 years versus where they are today, but higher rates do not impact the forward return expectations of fixed income sectors equally.

Credit-sensitive sectors, with higher yields and opportunity for spread compression, can potentially withstand rising rates better than some fixed income, particularly rate increases associated with higher inflation expectations. By increasing allocations to a broader, higher return-potential fixed income sleeve, the resulting portfolio has a more diversified risk-factor profile, i.e., one that is less dependent on equity beta, than the 60/40 and may be more efficient from a risk–return standpoint.

Investors seeking higher levels of return, or who are set on maintaining 60-percent equity exposure, can still make adjustments to the fixed income sleeve to improve diversification and increase return potential (see figure 3). However, they should acknowledge that doing so may result in higher levels of volatility and downside risk.

REFINING THE TRADITIONAL PORTFOLIO: A FACTOR LENS

The 60/40 mix is suboptimal from a risk-return standpoint (see figure 4) as well as through a risk-factor diversification lens. As seen in figure 4, 103 percent of the expected volatility of the 60/40 can be explained solely by equity sensitivity.[3]

Assuming that 60/40 investors have varying return hurdles and, all else being equal, would prefer a risk profile less dominated by equity volatility, we can optimize to balance the factor exposure and improve upon the expected risk-return profile.

MANAGING RISK FACTORS CAN ADDRESS 60/40 SHORTFALLS

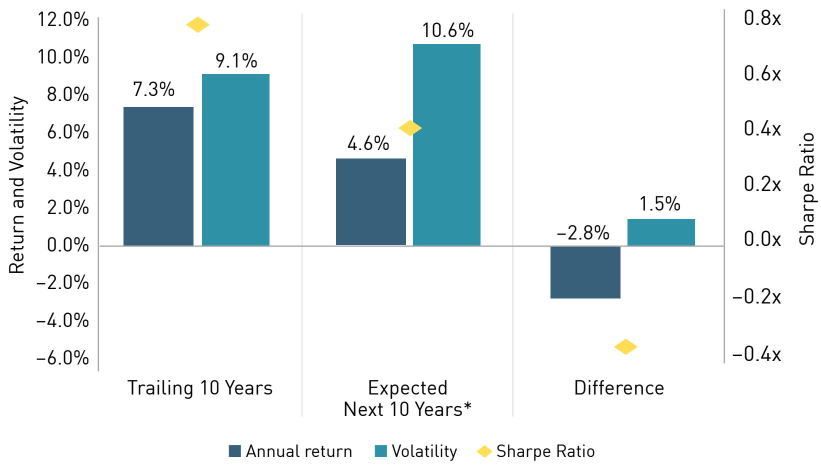
Figure 5 shows a more balanced risk-factor breakdown of these three hypothetical portfolios. All three reduce equity factor risk and increase credit factor risk to help maintain or improve return potential.

Each resulting portfolio is also less sensitive to rate changes driven by inflation expectations, which are proxied by the difference in yield between the 10-year nominal U.S. Treasury note and the 10-year U.S. Treasury Inflation-Protected Securities (TIPS)—known as "the breakeven." Historically, rate sensitivity has helped to dampen equity volatility in balanced portfolios, particularly during times of market stress. For the portfolios designed to maintain a similar or lower volatility profile versus the traditional 60/40, reducing equity risk can help to offset any increased volatility from reducing rate risk and increasing credit risk within the fixed income sleeve.

Under our baseline assumptions (see figure 6), the hypothetical portfolios all have higher Sharpe ratios than the traditional 60/40. The Downside Protector portfolio maintains the same expected returns but with lower

Figure 1

TRADITIONAL 60/40 PORTFOLIO: TRAILING AND EXPECTED RETURNS, VOLATILITY, AND SHARPE RATIO



Data source: Nuveen, Bloomberg, L. P., December 31, 2020. Past performance does not guarantee future results. Representative indexes: global: MSCI ACWI Index; broad bond market: Bloomberg Barclays U.S. Aggregate Index. Expected returns provided by the Nuveen Multi-Asset Team based on proprietary methodology using index level data. Analytics performed by Nuveen Portfolio Strategy. All hypothetical allocations are meant for analytical/discussion purposes and do not represent a recommendation to buy or sell any asset class or specific Nuveen strategy.

Figure 2

WHY RE-EVALUATE FIXED INCOME?

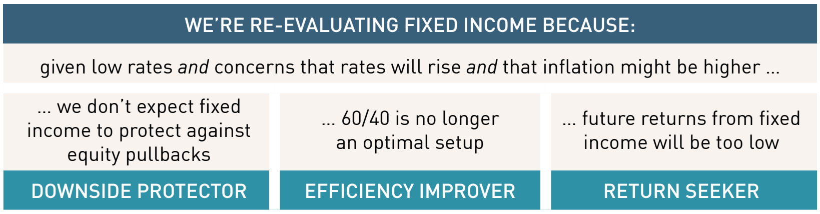
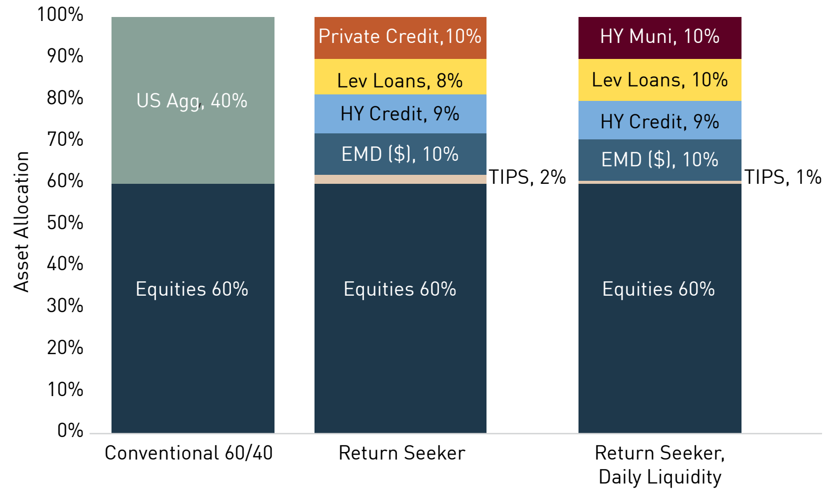


Figure 3

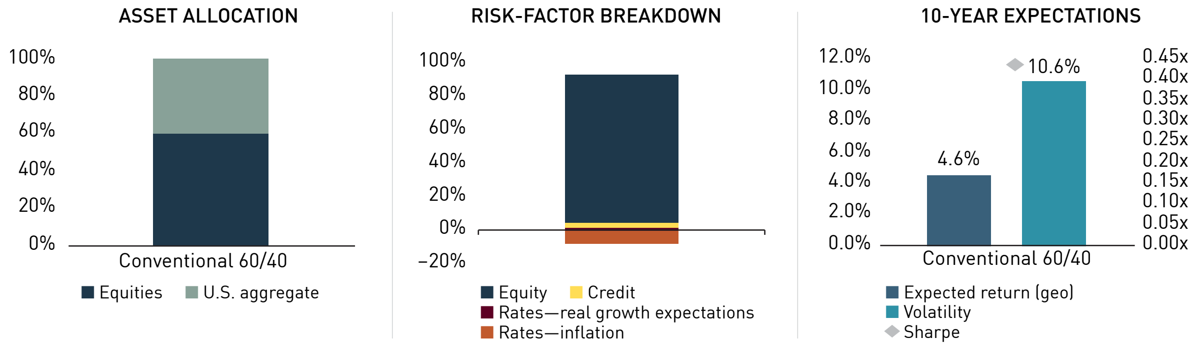
POTENTIAL FIXES FOR THE 40



Source: Nuveen. The portfolios above are hypothetical and for informational purposes only. They do not necessarily reflect the experience of any Nuveen product or service. Investors should consult with their financial professionals before making any investment decisions.

Figure 4

TRADITIONAL 60/40 PORTFOLIO



Asset Allocation	
Equities	60%
U.S. Aggregate	40%

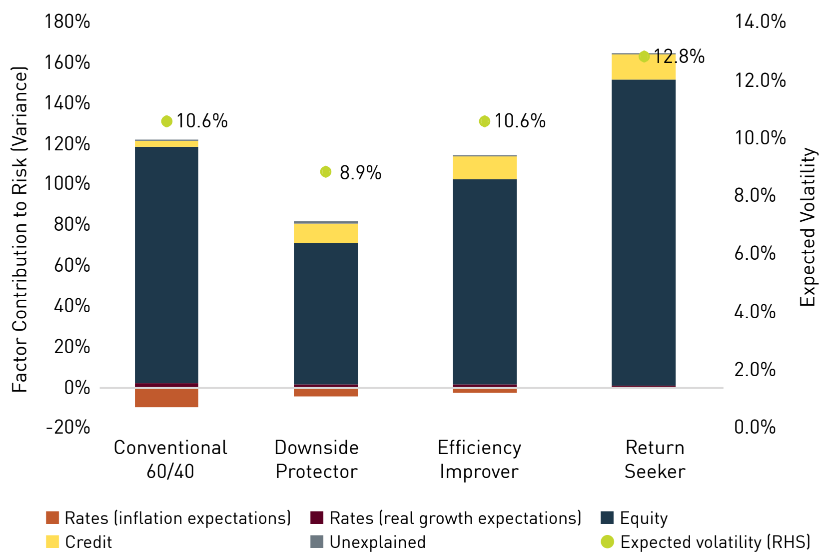
Risk-Factor Breakdown	
Equity	103%
Credit	3%
Rates (Growth)	2%
Rates (Inflation)	−9%

10-Year Expectations	
Expected return	4.6%
Volatility	10.6%
Sharpe	0.42x

Data source: Nuveen, Bloomberg, L. P., December 31, 2020. Past performance does not guarantee future results. Representative indexes: global: MSCI ACWI Index; broad bond market: Bloomberg Barclays U.S. Aggregate Index. Expected returns, volatilities, and risk-factor information provided by the Nuveen Multi-Asset Team based on proprietary methodology using index level data. Analytics performed by Nuveen Portfolio Strategy. For a more detailed explanation of factors, please see the appendix. All hypothetical allocations are meant for analytical/discussion purposes and do not represent a recommendation to buy or sell any asset class or specific Nuveen strategy.

Figure 5

FACTOR CONTRIBUTORS TO RISK



Data source: Nuveen, Bloomberg, L. P., December 31, 2020. Past performance does not guarantee future results. Expected volatilities, correlations, and risk-factor information provided by the Nuveen Multi-Asset Team based on proprietary methodology using index level data. Analytics performed by Nuveen Portfolio Strategy. For a more detailed explanation of factors, please see the appendix. All hypothetical allocations are meant for analytical/discussion purposes and do not represent a recommendation to buy or sell any asset class or specific Nuveen strategy.

volatility. The Efficiency Improver maintains a similar volatility to the 60/40 but has a higher expected return. Finally, the Return Seeker raises both expected returns and volatility, which nevertheless results in a better Sharpe ratio than the traditional 60/40.

The fixed income segments of all the hypothetical fixed income portfolios have higher yields overall than the aggregate-only allocation in the traditional 60/40 portfolio. Higher yields equate to more income, which is a direct contributor to higher total returns.

PORTFOLIO CONSTRUCTION: BALANCING RETURNS AND VOLATILITY

Figure 7 shows expected returns and volatility for these portfolios, as well as for a pure-cash portfolio and a pure-equity portfolio. Naturally, there is a trade-off between the two metrics, as represented by the dotted line. Although the three hypothetical portfolios were optimized to balance risk-factor exposures within certain guidelines and not necessarily maximize Sharpe ratio, the resulting allocations still move closer to the top left corner of the frontier versus the traditional 60/40.

To see how these different exposures translate to outcomes, we can use scenario analysis (see figure 8).[4] Building portfolios using factors doesn't eliminate risk, but it does allow us to be more deliberate with the types of risks we are exposed to. Scenario analysis can be used as a check to ensure each hypothetical portfolio's deviations from the traditional 60/40 might produce the intended result in the future, whether it be better downside capture during a risk-off market environment (equity shock) or more upside during a reflationary period (a breakeven increase).

Investors seeking higher levels of return, or who are set on maintaining 60-percent equity exposure, can still make adjustments to the fixed income sleeve to improve diversification and increase return potential.

CONCLUSION

Based on today's valuations across equity and fixed income, and the expectations for gradual rate normalization, 60/40 investors might consider taking some chips off the table from cap-weighted equities and rate-sensitive fixed income.

A more robust fixed income allocation—diversified across different borrower types, credit profiles, currencies, and coupon structures—is one way to potentially improve portfolio outcomes as rates gradually normalize.

Quantitative tools such as risk-factor analysis and scenario analysis may help to inform the asset-mix decision for a given client's risk tolerance.

Brian Griggs, CFA®, FRM, is a portfolio strategist responsible for promoting Nuveen's investment views and approach to multi-asset portfolio construction. He earned a BS from Syracuse University and an MBA from Columbia Business School. Contact him at brian.griggs@nuveen.com.

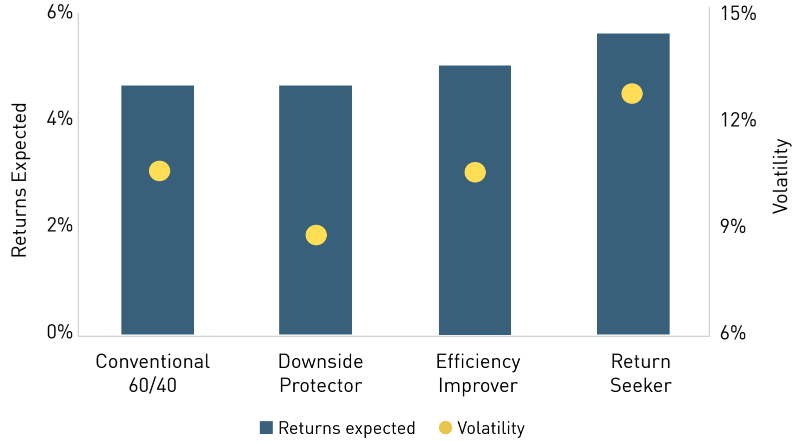
Quinn Brody is a macro analyst on Nuveen's global fixed income team, where he conducts macroeconomic research and analysis and provides a top-down perspective to the investment committee and portfolio management teams across asset classes. He earned BA and MA degrees, both in international economics, from American University. Contact him at quinn.brody@nuveen.com.

APPENDIX: WHAT ARE RISK FACTORS?

Investors earn returns for bearing risk, i.e., uncertainty of the future valuation

Figure 6

COMPARING A TRADITIONAL 60/40 PORTFOLIO TO HYPOTHETICAL PORTFOLIOS

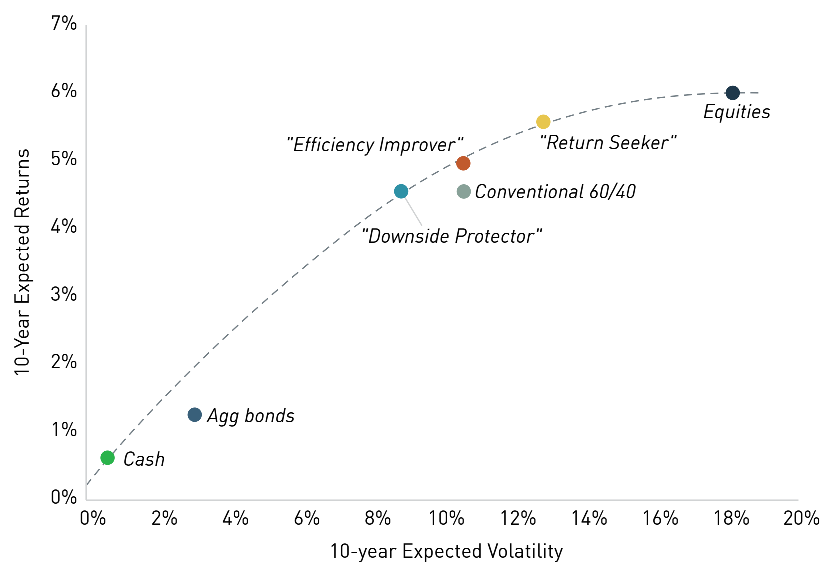


	Conventional 60/40	Downside Protector	Efficiency Improver	Return Seeker
Expected Return	4.6%	4.6%	5.0%	5.6%
Volatility	10.6%	8.9%	10.6%	12.8%
Sharpe Ratio	0.42%	0.49%	0.46%	0.45%
FI Yield to Worst	1.6%	4.3%	4.7%	6.0%
FI Duration	6.2%	5.5%	5.0%	4.0%

Data source: Nuveen, Bloomberg, L. P., December 31, 2020. Past performance does not guarantee future results. Expected returns, volatilities, and correlations provided by the Nuveen Multi-Asset Team based on proprietary methodology using index level data. Analytics performed by Nuveen Portfolio Strategy. All hypothetical allocations are meant for analytical/discussion purposes and do not represent a recommendation to buy or sell any asset class or specific Nuveen strategy.

Figure 7

EXPECTED RETURNS/VOLATILITY FRONTIER



Data source: Nuveen, Bloomberg, L. P., December 31, 2020. Past performance does not guarantee future results. Representative indexes: equities: MSCI ACWI Index; Agg fixed income: Bloomberg Barclays U.S. Aggregate Index; Cash: 12-month T-bills. Expected returns provided by the Nuveen Multi-Asset Team based on proprietary methodology using index level data. Analytics performed by Nuveen Portfolio Strategy. All hypothetical allocations are meant for analytical/discussion purposes and do not represent a recommendation to buy or sell any asset class or specific Nuveen strategy.

of their investments. The higher the risk, the higher the potential return. “Risk factors” help to explain the common sources of risk and return that cut across the investments in a portfolio and can’t be diversified away. Understanding these common factor exposures is an important risk-management tool because portfolios that seem to be diversified at the asset-class level may be overconcentrated in a small number of risk factors. Factors also provide a common lens to construct and risk-manage multi-asset portfolios, because most traditional fixed income risk metrics, e.g., duration, don’t lend themselves to equities and other alternatives.

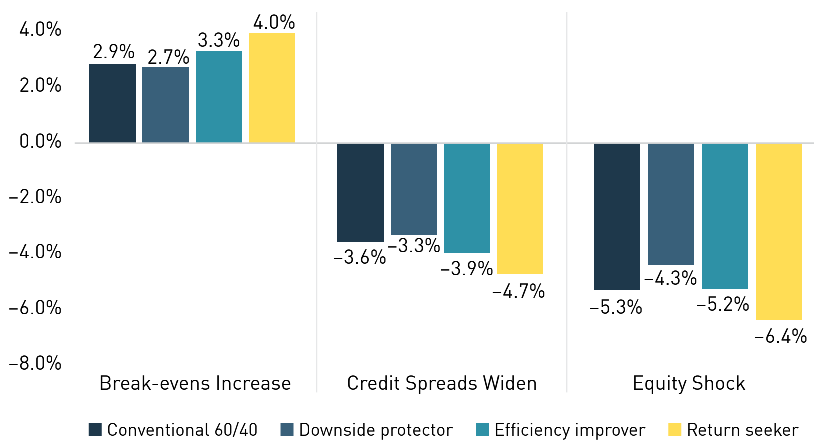
Take high-yield (HY) credit, as shown in figure A1. Although most think of HY credit to fit exclusively in the “credit” bucket of a portfolio, it also exhibits positive correlation to equities. Factor analysis quantifies the amount of HY volatility that is attributable to movement in equities versus volatility due to changes in credit spreads or interest rates. Knowing this, we can conclude that increasing HY credit from core bonds (represented below by “US agg”) in an effort to enhance portfolio yield will increase the overall portfolio’s equity factor risk, even without making adjustments to the equity sleeve.

The fixed income asset classes in figure A1 also each have a portion of volatility that can’t be quantified by the factor set used. This often is referred to as “idiosyncratic risk” or volatility attributable to a unique feature of that asset class that isn’t part of our factor set. At the portfolio level, this unexplained risk often is diversified away to levels closer to zero as more asset classes are added to the portfolio.

For this analysis, we used the following four risk factors, which capture the majority of the volatility in a traditional 60/40 and the three hypothetical allocations we presented.

Figure 8

BASED ON ONE-STANDARD-DEVIATION MOVE OF EACH FACTOR*

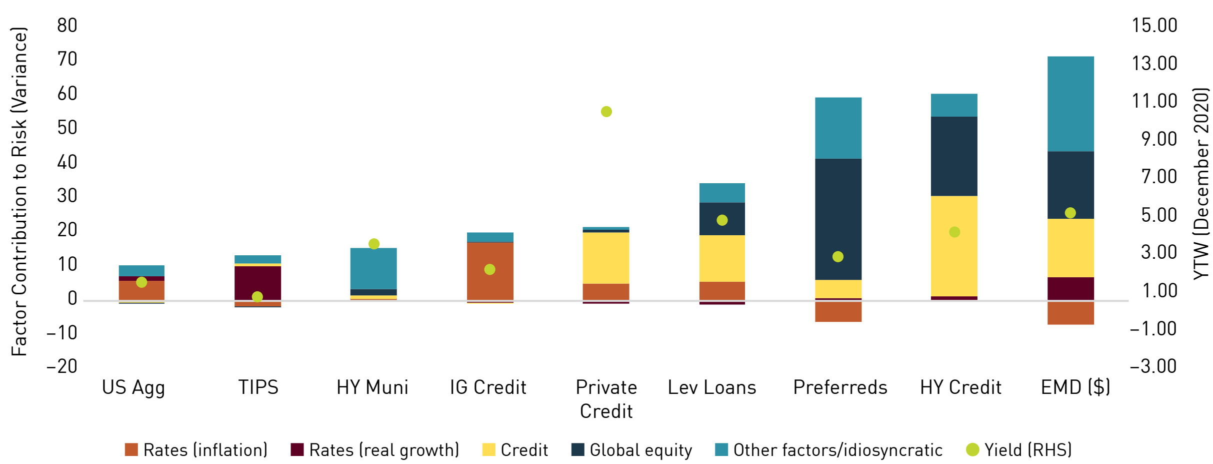


*One standard deviation is used for better consistency across the macro variables we are shocking. For each variable using our dataset, this translates to approximately a +37-basis-point increase in inflation expectations, a +32-basis-point widening in credit spreads, and a -9-percent shock to global equities. See appendix for how we define each factor.

Source: Nuveen. The portfolios above are hypothetical and for informational purposes only. They do not necessarily reflect the experience of any Nuveen product or service. Investors should consult with their financial professionals before making any investment decisions.

Figure A1

FACTOR CONTRIBUTIONS TO RISK BY ASSET CLASS



Data source: Nuveen, Bloomberg, L. P., December 31, 2020. Past performance does not guarantee future results. Representative indexes: global: MSCI ACWI Index; broad bond market: Bloomberg Barclays U.S. Aggregate Index. Expected returns provided by the Nuveen Multi-Asset Team based on proprietary methodology using index level data. Analytics performed by Nuveen Portfolio Strategy. All hypothetical allocations are meant for analytical/discussion purposes and do not represent a recommendation to buy or sell any asset class or specific Nuveen strategy.

Global equity risk, represented by the MSCI ACWI IMI Index. This risk factor is key to long-term return generation, but it is also the least predictable, i.e., most volatile, factor in our set. For that reason, it tends to dominate the risk profile of a multi-asset portfolio. Equity risk is required for higher real return levels, but it needs to be diversified with factors that can provide returns when equities underperform.

Credit risk, represented by the change in Moody's BBB–AAA corporate credit spread. Credit is a return-generating risk factor that is less volatile than equities over long periods; it also can be used to boost portfolio yield. However, during times of stress, credit tends to be extremely correlated with equities. For that reason, it's important to diversify sources of credit risk in a portfolio.

Inflation risk, represented by the change in the yield spread between the 10-year nominal U.S. Treasury note and the 10-year U.S. Treasury Inflation-Protected Securities (TIPS)—known as "the breakeven." When rates rise due to expectations of higher inflation, it tends to be an economic environment where equities and spread sectors perform well, and vice versa. For that reason, this factor tends to be negatively correlated with equities and can provide diversification in bear markets.

Rates risk for real growth, represented by the change in the yield spread between the 10-year nominal U.S. Treasury note and the 10-year breakeven, adjusted by the estimated term premium. When nominal rates rise due to increases in real rates, it tends to be a sign of strong economic momentum. However, real rate increases also can occur in anticipation of Fed hiking cycles or during times of liquidity stress. Understanding your view on rates and, more importantly, why you think rates might move in a certain direction, can help determine how your portfolio should be exposed to real rate factor risk.

ENDNOTES

1. As of December 31, 2020.
2. The Nuveen Multi-Asset Team produces forward-looking assumptions for asset class return, risk, and correlations across asset classes and various macro risk factors. For this analysis, we've utilized a subset of Nuveen's 10-year capital market assumptions to model various combinations of global equities (MSCI ACWI) and a diversified subset of fixed income sectors as well as portfolios sensitive to macro risk factors. These return assumptions are gross of fees and do not take into account any net-of-fee alpha from active management.
3. The contribution to risk from equities is greater than 100 percent because rate sensitivity (specifically, sensitivity to changes in inflation expectations) has been negatively correlated with equity movements historically. Thus, the rate sensitivity from aggregate bonds slightly reduces the overall portfolio risk.
4. Each scenario represents a one-standard-deviation factor shock. For example, "equity shock" assumes equities fall by 9 percent, which is equivalent to a one-standard-deviation quarterly loss. In each scenario, the other three factors are shocked based on their correlations (covariances) to that factor.

CONTINUING EDUCATION

To take the CE quiz online, go to www.investmentsandwealth.org/IWMquiz

5619 DTC Parkway, Suite 500
Greenwood Village, CO 80111
Phone: +1 303-770-3377
Fax: +1 303-770-1812
www.investmentsandwealth.org