Market commentators have devoted much energy over the past year to debating whether it's time to write off the traditional 60/40 approach to investing that broadly allocates 60% of a portfolio to equities and 40% to fixed income. Rather than being drawn into that discussion, Nathan Thooft, Chief Investment Officer, Senior Portfolio Manager, Multi-Asset Solutions Team, believes it's more constructive for investors to focus on understanding the macroeconomic conditions under which the effectiveness of a 60/40 portfolio may be challenged and what this means for portfolio construction going forward.

influencing Five factors effectiveness of 60/40 a portfolio

Key takeaways

- Periods of higher inflation, uncertainty, and lower liquidity can lessen the diversification benefits of a 60/40 portfolio.
- During periods of monetary expansion, typically driven by accommodative monetary policy, there tends to be a modest positive correlation between stocks and bonds, but we would note that both asset classes' returns are generally positive during these periods noted by our data.
- Elevated market volatility has a modest effect on the potential diversification benefits that a 60/40 approach can offer.

Measuring the diversification benefits of a 60/40 approach

Typically, an examination of the correlation between equities and bonds would entail comparing monthly changes in the S&P 500 Index with 10-year U.S. Treasury yields, with the goal of observing the relationship between a risky and risk-free asset. A quick look at the relationship reveals that the correlation between the two has been positive over the past couple of decades. This implies that there's been a diversification benefit during this time 1;

however, 2022's dismal performance across equities and fixed income caused some to question the merits of such a portfolio.

While it's common practice to use the S&P 500 Index and Treasury yields as a proxy to ascertain the correlation between the two asset classes, we don't think that it necessarily reflects an investor's realworld experience: In our view, it's more intuitive to compare an equity index with a comprehensive bond market index. While this approach introduces additional factors into the picture—such as credit risk, which is often excluded from traditional correlation analyses between risky and risk-free assets-we believe it provides a more accurate framework for evaluating the effectiveness of a 60/40 portfolio, which typically holds exposure to a wide range of fixed-income securities that goes well beyond government bonds. Using this approach, we consider the rolling one-year correlation between one-month returns of the S&P 500 Index and the Bloomberg U.S. Aggregate Bond Index.

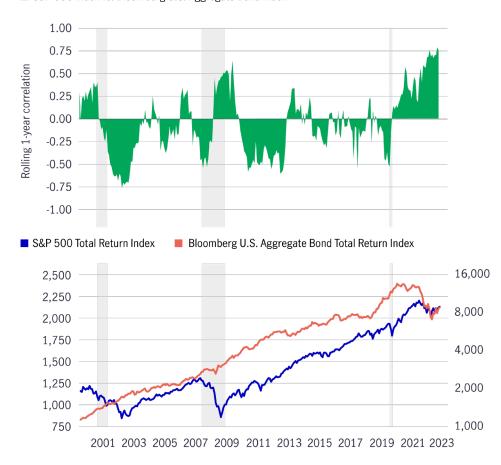
The changing correlation between the two indexes over time highlights that the diversification benefits sought by investors are more pronounced in certain periods than in others. This observation may have important implications for portfolio construction, specifically from a returns and drawdownmanagement perspective within portfolios.

Treasury yields implies negatively correlated returns between the two asset classes, thereby providing a diversification benefit.

¹ It's important to note that bond prices are inversely related to yields. As such, a positive correlation between the S&P 500 Index and 10-year U.S.

Measuring the stock-bond correlation

■ S&P 500 Index vs. Bloomberg U.S. Aggregate Bond Index



Source: Macrobond, Manulife Investment Management, as of 9 May 2023. Bloomberg U.S. Aggregate Bond Total Return Index: left-hand side. S&P 500 Total Return Index: right-hand side. The grey areas represent recessions. It is not possible to invest directly in an index.

Given the changing relationships, our key aim is to identify periods—and the macroeconomic forces—that have a role in altering the strength of the correlation between stock and bond prices. Having a better sense of *when* these dynamics could come into play can potentially make a material difference to returns: This enables active asset allocators to look beyond stocks and bonds in their search for diversification benefits *ahead* of time.

Identifying periods of rising correlations between stocks and bonds: examining five factors

To enhance our understanding of how an active, flexible approach to portfolio management can complement a traditional 60/40 portfolio, we examine five factors to identify periods that could influence the correlation between stocks and bonds. In our review, we assess all periods from 1989 through April 2023 to understand the influence of these five factors.

1 Inflation

According to our analysis, headline inflation data has shown to have the highest positive correlation to the stock-bond relationship. The relationship becomes more pronounced when we use core measures (i.e., inflation excluding food and energy) for both the Consumer Price Index (CPI) and the Personal Consumption Expenditure deflator. Our research shows that the correlation between core inflation and the stock-bond relationship is around 0.50. The equivalent reading for headline inflation was slightly lower, at about 0.40. Put differently, this suggests that the 60/40 approach is likely to be less effective in periods in which prices are rising.

There are two additional notable observations: First, when inflation is below 3%, the correlation between stocks and bonds can have a range of outcomes, with a negative correlation becoming more observable when the year-over-year rise in price increases stay *below 1%*. Second, when inflation rises above the 3% level, the correlation between the two asset classes almost always turns positive. We

believe this shift in correlation can be attributed to monetary tightening that typically occurs with higher inflation.

2 Liquidity

We found that there was a moderately negative correlation (roughly -0.35) between money supply growth (using $M2^2$) and the stock-bond relationship; however, the correlation turns slightly less negative when we take inflation into account (i.e., using M2 less CPI). This means that as money supply moderates, the correlation with the stock-bond relationship strengthens.

3 Uncertainty

Using the Global Supply Chain Pressure Index as a proxy, we examined the stock-bond relationship with strains in the global supply network, revealing a correlation of approximately 0.45. We found that when the index exceeds 1, the correlation between stocks and bonds tends to be more positive, therefore, implying that the 60/40 approach to portfolio construction may not perform as well in times in which global supply networks are stressed.

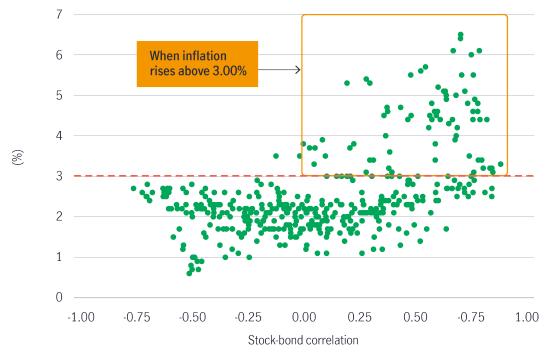
4 Growth

When examining the relationship between economic growth and the stock-bond relationship, uncovered a more modest positive association between them. Interestingly, we found that indicators measuring manufacturing production showed a slightly stronger relationship to—and effect on—the stock-bond correlation relative to broader growth indicators such as GDP. This finding is encouraging as it may suggest that during periods of weaker growth, if equities underperform, fixed-income assets are likely to offer some level of support aligned to a traditional 60/40 approach. Furthermore, we observed that the correlation strengthened to some extent when we excluded most recent data captured during the onset of the COVID-19 pandemic.

5 Volatility

In order to examine the impact of volatility on the stock-bond relationship, we used two different measures ³. The findings yielded somewhat unexpected results by suggesting that the correlation between equity and bond market volatility and the

CPI, excluding food and energy, YoY vs. stock-bond correlation



Federal Reserve, U.S. Bureau of Labor Statistics, U.S. Bureau of Economic Analysis, American Association of Individual Investors, Macrobond, Manulife Investment Management, as of 9 May 2023. CPI refers to the Consumer Price Index (CPI), which tracks the average change of prices over time by urban consumers for a market basket of goods and services. It is not possible to invest directly in an index. YoY refers to year over year.

² M2 is a measure of the money supply that includes cash, checking deposits, savings deposits, money market securities, mutual funds, and other time deposits. M2 is widely used as an indicator of the money available for spending and investment in the economy.

³ For equities, we used the Cboe Volatility Index, and we used the ICE BofA U.S. Bond MOVE Index to test bond market volatility.

stock-bond relationship may be weak. That said, we think it's important to consider the influence that the pandemic had on these correlations; prior to the pandemic, the correlation between stocks and bonds and volatility was a little higher, at 0.25, relative to now. This may suggest that the market response to the emergence of COVID-19, and subsequent government policy actions taken to support the economy, could have distorted the data, making it more difficult to decipher the more recent correlation between market volatility and the stock-bond relationship.

The path forward

The analyses yielded intriguing results and provided valuable insight into factors that can potentially compromise the effectiveness of a traditional 60/40 approach to asset allocation. Our study showed that the efficacy of the 60/40 portfolio can be diminished during periods of higher inflation, particularly when inflation surpasses 3%. The same occurs during periods of deteriorating liquidity, and—somewhat counterintuitively—in times of sudden and massive liquidity injection, typically occurring in periods of monetary policy stimulus.

Encouragingly, the expected relationship between stocks and bonds asserts itself during periods of economic slowdown. In these cases, fixed-income assets are able to resume their traditional role as a diversification tool as equities underperform. Meanwhile, high bond and equity volatility exhibited minimal impact on stock-bond correlations.

Naturally, these findings raise an important question: Which asset types can offer diversification when the stock-bond correlation turns positive? In our view, a logical response could involve widening the investment universe to consider allocating to alternative investments. For example, real assets tend to have a lower correlation to a traditional 60/40 portfolio and, as such, are a viable diversifier. Ultimately, the strategic use of the right tools at the right time is of utmost importance.

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