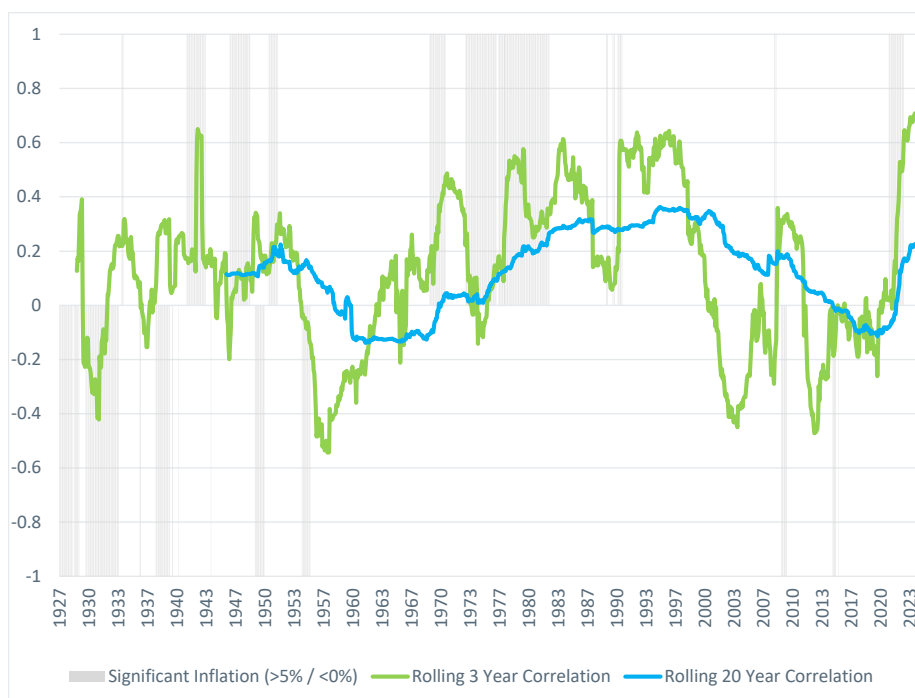


## Diversification Considerations Given Changing Stock-Bond Correlations

Harry Markowitz, Nobel Laureate and creator of modern portfolio theory, is credited with the famous quote, “Diversification is the only free lunch in investing.” Diversification is a fundamental best practice for any investment allocator. However, diversification benefits across asset classes can change over time and thus reviewing correlation relationships periodically can be a useful exercise. Stock-bond correlations have always been the foundational focus of portfolio diversification. However, with stock-bond correlations rising over the past few years, many investors are worried that this foundational diversification strategy is perhaps waning.

We believe this concern is premature, and that the relationship is more complex than simply looking at recent correlations. We believe that long-term investors should focus on long-term correlations, the causes of short-term correlation changes, as well as diversification benefits when it matters the most—during periods of market stress. As shown in the chart below, stock-bond correlations have been fairly stable over the long-run—providing attractive diversification benefits to investment portfolios.

**Figure 1: Historical Stock-Bond Correlations**



Source: FactSet. “Stocks” are represented by the S&P 500 Index and “Bonds” are represented by the Bloomberg US Aggregate Bond Index.

That said, high inflationary periods (>5%) tend to increase stock-bond correlations—reducing the diversification benefit to the portfolio. This is most noticeable during short-term periods (i.e., 3 years), and less so over longer periods (i.e., 20 years). For example, even during the extended period of inflation from the 1970s into the 1980s the subsequent long-term stock-bond correlation numbers remained reasonably attractive.

Perhaps most importantly, the diversification benefits of stocks and bonds have been particularly meaningful when needed the most—during significant stock market downturns. As shown in the table below, bonds have historically been quite good at providing portfolio protection during stock market downturns—with 2022 being the exception to the rule rather than the norm (please note that bonds provided a significant real return in 1931).

**Figure 2: Calendar Years with >10% US Stock Market Losses**

	US Stocks	US Bonds	US Inflation
1930	-24.90	6.72	-6.03
1931	-43.34	-2.31	-9.52
1937	-35.03	1.58	3.10
1941	-11.59	0.49	9.72
1957	-10.78	7.84	3.02
1966	-10.06	4.69	3.35
1973	-14.69	4.61	8.80
1974	-26.47	5.68	12.20
2001	-11.89	8.44	1.55
2002	-22.10	10.25	2.38
2008	-37.00	5.24	0.09
2022	-18.11	-13.01	6.45

Source: FactSet. “US Stocks” are represented by the S&P 500 Index and “US Bonds” are represented by the Bloomberg US Aggregate Bond Index.

Of course, past performance is no guarantee of future results and investors should stay aware of changing market dynamics, continue to monitor asset class correlations, and be mindful of potential inflationary periods. And while there are concerns about the long-term consequences of interventionist monetary and fiscal policy on inflation and other market dynamics that might impact stock-bond correlations, our base case is not elevated correlations. We continue to believe that allocations to both stocks and bonds will provide reasonable diversification benefits to investment portfolios over the long-run.

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