



3EDGE
ASSET MANAGEMENT

Hard Assets

Essential Ingredients for Building Diversified Portfolios

WHITE PAPER

SEPTEMBER 2025

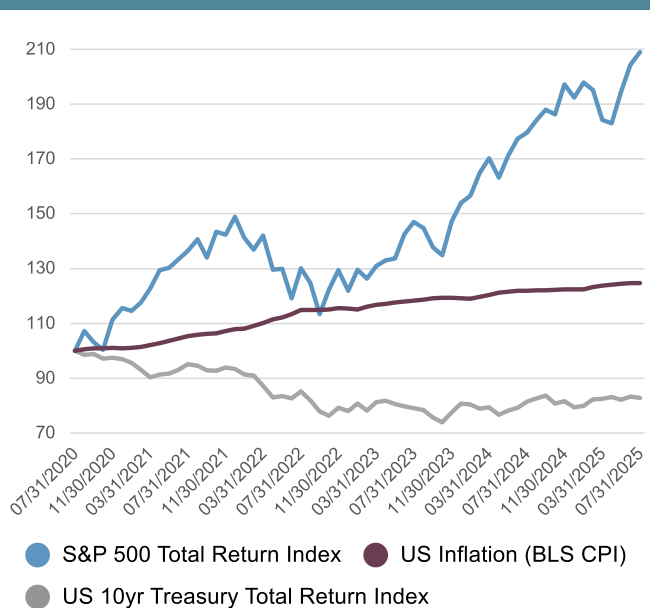


Hard Assets: Essential Ingredients for Building Diversified Portfolios

While Equities have outperformed other major asset classes over the long run, an all-equity portfolio behaves with an unacceptable level of volatility and risk of loss for all but the most intrepid of investors. Consequently, investors and their advisors seek an effective complement to the Equity portion of their portfolio to manage risk and potentially lessen the probability of a major drawdown.

Stocks, Bonds and Inflation

7/31/2020 - 7/31/2025



Source: Bloomberg

The 60/40 Portfolio

A solution that has enjoyed widespread adoption since the early 1980s has been the so-called 60/40 portfolio (60% Equities / 40% Bonds). The idea behind this strategy is that while Equities are likely to generate higher returns over time, the Bond portion of the portfolio is meant to dampen overall volatility and large drawdowns. It is no surprise that 60/40 portfolios became highly popular starting in the 1980s. The early 1980s marked the beginning of the greatest bull market in Bonds in U.S. history that lasted until the summer of 2020, with 10-year U.S. Treasury Bond yields falling from over 15.8% in September 1981 to 0.5% in July 2020. As a result, Bond holders enjoyed large capital gains during this period along with high interest income during much of the period. When Equities would correct under the threat of an economic slowdown, Bond yields would typically decline more than normal, contributing capital gains to the 60/40 portfolio that at least partially offset losses from Equities.

Since July 2020, Bond yields have climbed far above their all-time historic lows. As a result, Bonds have been in one of the worst bear markets in history since then, reminiscent of the great bear market in Bonds that lasted from 1941 through 1981.

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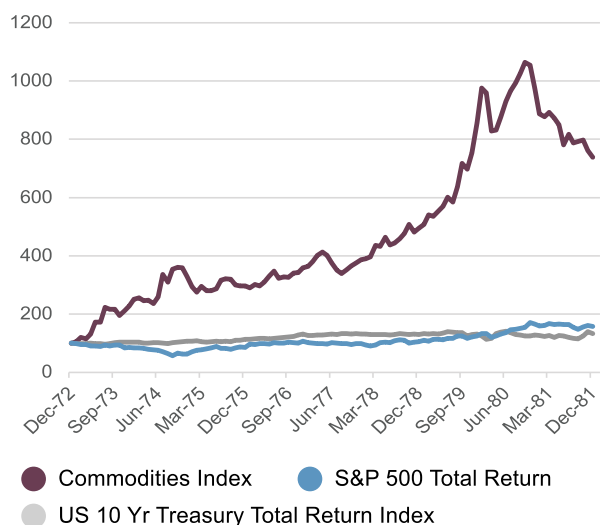
Partner, Deputy Chief Investment Officer

Since July 2020, the Bond portion of the 60/40 portfolio has no longer served as an effective complement to the equity portion, yet many investors haven't recognized that the very conditions that supported Bonds from 1981 through 2020 no longer exist. All too often, investors stick with practices that worked in their past and fail to recognize that the drivers for success of a past strategy are no longer present. In fact, one of the worse environments for a 60/40 portfolio would be a 1970s-style stagflation – rising inflation coupled with a weakening economy. Rising inflation typically leads to capital losses from Bond holdings while a weakening economy typically leads to a stock market correction, leaving a 60/40 portfolio defenseless.

The Threat to Bonds from Rising Inflation, Interest Rates and Stagflation

Given soaring deficits, rising tariffs, supply chain disruptions, rising geopolitical conflicts, threats to FED independence and signs of a rebound in inflation, we believe that the threat of stagflation is serious, creating a sense of urgency to find a complement to an Equity portfolio that would be more suitable than Bonds. While Bonds may no longer be counted on to be an effective hedge to Equities if inflation and interest rates climb, Hard Assets typically thrive under a stagflationary environment.

Commodities Outperform During Stagflation 12/31/1972 - 12/31/1981



Source: Bloomberg

We define Hard Assets to include: Gold; Precious Metals; Industrial Metals; Energy; Agricultural Commodities; and Short-term TIPS (Treasury Inflation-Protected Securities). Various components can benefit from the following conditions: excessive fiscal or monetary stimulus; commodity supply constraints; a weakening U.S. Dollar; rising inflation; climate change; geopolitical conflicts; and falling real (inflation-adjusted) yields. We believe that a basket of Hard Assets should be diversified across its categories but overweight to those components that are best positioned to benefit from current conditions, adjusted appropriately as conditions change.

For illustration purposes, the following chart demonstrates the difference in return and risk from July 31, 2020 to July 31, 2025 between a 60/40 portfolio using Bonds as the Equity complement and a representation of Hard Assets, namely the Rogers International Commodity Index (RICI), as the Equity complement. We use the S&P 500 Total Return Index for the 60% Equity portion. The U.S. 10-year Treasury Bond total return index serves as the 40% portion of the conventional 60/40 portfolio, and the RICI total return index serves as the 40% complement for the Equities / Hard Assets portfolio. As the chart demonstrates during this period, Hard Assets offer a significantly better complement and hedge than Bonds, resulting in a higher return along with less risk, as measured by maximum drawdown.

Since Record Low in Bond Yields 7/31/2020 – 7/31/2025

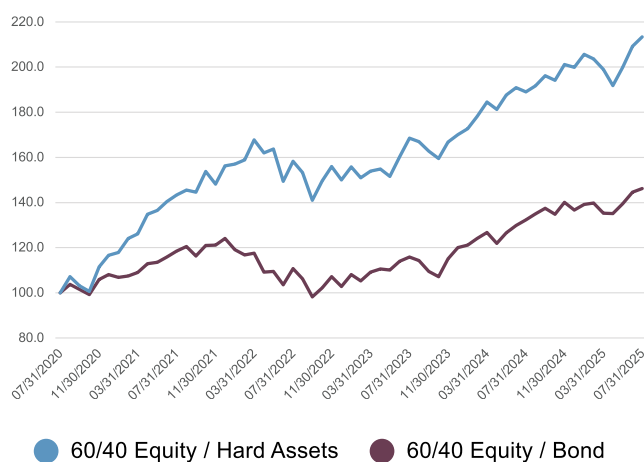
	60/40 Equity / Bond	60/40 Equity / Hard Assets
CAGR	7.9%	16.4%
Max Drawdown	-20.9%	-15.9%

Equity: S&P 500 Total Return Index

Bond: 10yr U.S. Treasury Total Return Index

Hard Assets: Rogers International Commodity Index Total Return

60/40 Hedging Alternatives – Bonds vs Hard Assets 7/31/2020 - 7/31/2025



Source: Bloomberg

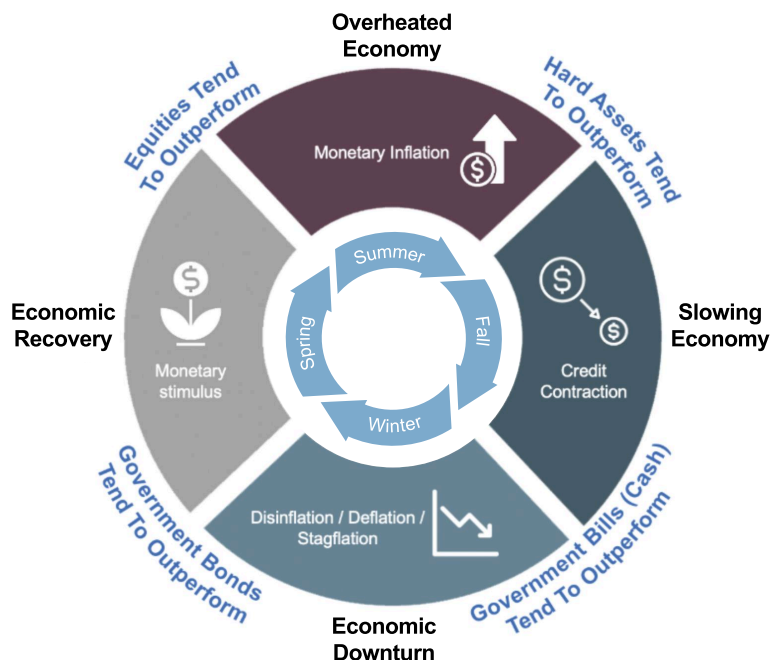
Seasons of the Market

We observe that markets cycle through different phases over time. We find it helpful to draw an analogy between the phases of a market/economic cycle and the seasons of the calendar (Winter, Spring, Summer and Fall). Winter corresponds to a prolonged recession. As monetary and fiscal stimulus, with a lag, eventually lifts the economy, the markets turn to Spring, with Equities rising. Because of the lags inherent in monetary and fiscal stimulus, the stimulus typically overshoots, and eventually the economy overheats, turning to Summer, when trend-followers push Equities to new records. During Summer, inflation begins to rise, and Hard Asset prices typically climb. This can continue until a catalyst such as a tightening of financial conditions intervenes (usually a FED tightening but could also be Fiscal (U.S. Government) tightening or the arrival of an unpredictable Black Swan). The catalyst turns Summer to Fall, when the markets and economy face strong headwinds while Hard Assets may continue to rise, credit spreads widen, and lower-quality Bonds suffer. A prolonged Fall phase eventually turns to Winter. If the oncoming recession is disinflationary, then Treasury Bonds act as a safe haven while lower-quality Bonds continue to suffer, along with Equities. If the recession is inflationary (Stagflation), then all Bonds suffer with the exception of TIPS.

We observe that current conditions place us in Summer, with Hard Assets and Equities outperforming while Bonds underperform. In Summer, Hard Assets act as a more effective equity complement and hedge than Bonds. Once a catalyst arrives, the market is poised to enter Fall, proving challenging for Equities and Bonds but favorable for Hard Assets and Treasury Bills / Cash. If the following Winter season is inflationary, then Hard Assets including TIPS are better positioned than Bonds as an Equity hedge.

Financial Repression and Fiscal Dominance

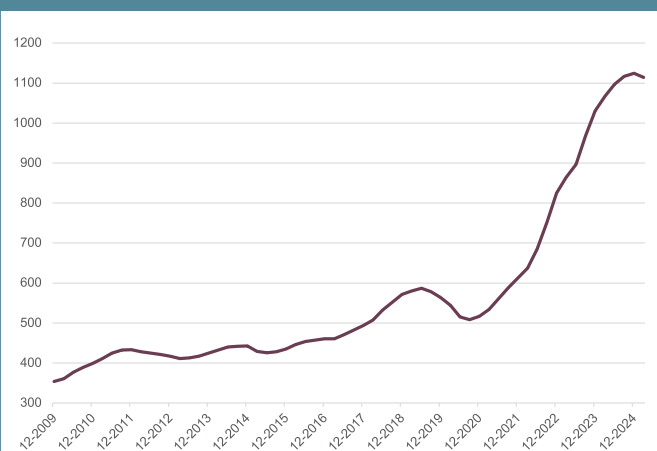
The U.S. government has a serious debt problem, with the ratio of debt to GDP reaching an all-time high, exceeding the previous peak following World War II. When yields on Treasuries fell to all-time lows, the annual interest expense (debt service) the government was required to pay its creditors was low and manageable, hiding the future burden of rising government debt once Treasury yields were to return to more normal levels.



Since July of 2020, interest rates have rebounded, government debt has climbed above \$37 Trillion, and the government's annual debt service now exceeds the total annual U.S. defense budget. The following chart illustrates the acceleration of debt service, which has the potential either to crowd out defense, entitlement and infrastructure spending, or to require the U.S. government to borrow additional funds just to cover the spiralling debt service payments.

U.S. Debt Service Burden (\$ billions)

12/31/2009 - 12/31/2024



Source: Bloomberg

Short of defaulting, governments typically have four options for dealing with excessive debt: 1) sharply reduce government spending (austerity); 2) raise taxes; 3) inflate the debt away; or 4) achieve a productivity breakthrough. Politicians have found that attempts at austerity or large tax hikes prove to be deeply unpopular, risking a politician's ability to stay in office. Achieving a productivity breakthrough is easier said than done. While many technological breakthroughs have added great value over time (e.g. the invention of railroads, electricity, automobiles, mass production, telecommunications, personal computing, the internet and AI), management teams and organizations take far longer to overcome resistance to change, to reorganize, to adapt, to train and to succeed at realizing the potential of new technologies quickly enough to achieve a productivity miracle in time to solve a debt problem. For all these reasons, governments typically turn to #3, "inflate the debt away," by implementing a practice known as Financial Repression.

The idea behind Financial Repression is to manipulate the interest rate that governments pay their creditors, the Bond holders. By holding the interest rate below the rate of inflation, governments hope to inflate their debt away as tax revenues rise at the rate of inflation while debt service payments stabilize at the lower manipulated interest rate. This imposes a hidden tax on Bond holders, who unwittingly let the government off the hook. From 1941 through 1981, 10-year U.S. Treasury Bonds lost half their value relative to inflation, as illustrated in the following chart.

U.S. 10yr Treasury Bond Total Return (Real)

12/31/1940 - 12/31/1981



Source: Bloomberg

Given the similarity between today's debt predicament and post-World War II, it is reasonable to conclude that Bond holders should be concerned that they will be assessed the "hidden tax" of Financial Repression.

Another caution facing Bond holders today is the prospect of Fiscal Dominance. Fiscal Dominance refers to a country's central bank losing its independence and serving the needs / following the instructions of its Treasury Department and country's leadership. Fiscal Dominance has been practiced by a number of emerging market countries over time, typically led by authoritarian figures, to add stimulus to solve problems in the short term (e.g. prior to elections) at the risk of causing larger problems in the future. For example, while a country may force its central bank to lower its short-term interest rates to stimulate an economy and lower interest expenses, investors typically lose confidence in that country's policies, leading to a weakening currency, higher inflation and higher long-term interest rates. In this scenario, it is the country's Bond holders that suffer capital losses and Hard Asset owners who benefit from the weakening currency and higher inflation.

The U.S. central bank, the Federal Reserve Board, has been placed under increasing pressure to accommodate the wishes of U.S. leadership and drastically lower its short-term interest rates below what the FED's governors believes is prudent to address its inflation-fighting mandate. Chair Powell's role expires in May of 2026, and the President has declared that he will nominate a new chair with a bias for lower interest rates. U.S. Bond holders should consider the risk of increasing Fiscal Dominance in the U.S.

Summary

For all the reasons described above, we believe the market and economic environment favors Hard Assets over Bonds as an effective complement to an Equity portfolio today and for the foreseeable future.

Contact Us

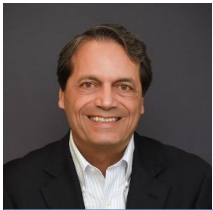
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Stephen Cucchiaro
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In his over 35 years of studying the global capital markets and managing investment portfolios, Mr. Cucchiaro has become known for using proprietary investment research methods including the application of concepts from system dynamics, complexity economics, artificial intelligence and multi-player game theory to analyze the global capital markets. Following a successful career as a management consultant, senior economist and technology entrepreneur, Mr. Cucchiaro founded and served as President & Chief Investment Officer of Windward Investment Management Inc., which was acquired by Charles Schwab in November 2010. At the acquisition, Windhaven Investment Management continued the business of Windward. From the early days of Windward through June 2014, assets under management under Mr. Cucchiaro's tenure grew from less than \$75 million to nearly \$20 billion. After more than three years of working towards a successful transition following the acquisition, Mr. Cucchiaro left Windhaven in June 2014.

Mr. Cucchiaro has appeared on Bloomberg TV and Radio, CNBC, Consuelo Mack's Wealth Track and the Nightly Business Report, and has been quoted in The Wall Street Journal, Barron's, The Financial Times, Forbes and BusinessWeek.



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Mr. Biegeleisen is a member of the investment committee. He served with Steve Cucchiaro on the investment committees for both Windward and Windhaven Investment Management, Inc. His research effort is focused on discovering and exploring the interconnectedness of the global capital markets through quantitative and qualitative analyses, including utilizing machine learning algorithms. He is experienced in investment modeling, implementing efficient trading practices and has significant ETF industry experience. Prior to joining 3EDGE, Mr. Biegeleisen was the Director of Quantitative Research and Portfolio Manager at Beaumont Capital Management. He was the Chief Investment Officer and Portfolio Manager of Broadmeadow Capital, LLC an investment firm which he co-founded in 2014. Prior to this, he worked for Windhaven Investment Management as a Senior Investment Analyst and then Director of Research, leading the firm's quantitative modeling, product due diligence and portfolio structuring. Before joining the investment industry, Mr. Biegeleisen was an engineer for General Dynamics and Textron, working to develop next-generation communications and defense solutions.

Disclosures

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