Discretionary Macro Review and Opportunity Set

Following the backdrop of global economic uncertainty and heightened market volatility in 2020, investors are seeking alternative means to enhance portfolio returns, reduce volatility, and maintain portfolio diversification. Interest in discretionary macro has been fueled by the strategy's low correlation to traditional assets and potential to perform well during crisis periods, periods of heightened volatility, and recessionary periods. Yet, the somewhat moderate performance of discretionary macro as compared to the strong returns of positive beta strategies over the last decade has left many wondering about the long-term return potential for the strategy. Here, we briefly discuss discretionary macro from a historical perspective as well as explore the current outlook for the strategy.

DISCRETIONARY MACRO 101

Discretionary macro strategies seek to profit from outright directional and relative price movements predicated on portfolio manager analysis of underlying economic variables and their potential impact on global markets. Portfolio managers may trade a broad range of themes based on individual market views and can express long or short views through various trading approaches. For example, strategies may be directional or relative value in nature and may be executed through fundamental or technical analysis, through a sole risk-taker or multi-manager platform approach, and over a long or short-term holding period. These strategies generally trade a broad range of liquid markets and instruments – including rates, currencies, commodities, and equities – which may offer the flexibility to exploit a range of market opportunities as they arise.

PERFORMANCE CHARACTERISTICS

Discretionary macro has no long or short market bias and has the flexibility to trade across a diverse market universe using various trading styles. This results in a strategy that has low correlation to traditional markets over the long-term (see Figure 1), with the ability to profit in both rising and falling markets. With low stock/bond correlation over time, discretionary macro can generate "alpha" (i.e., returns independent of market beta) and thereby provide portfolio diversification. Other hedge fund styles may not offer the same level of diversification (see Figure 2 below). Importantly, non-correlation does not mean negative correlation or imply market neutrality at every discreet point in time. Therefore, discretionary macro should not be treated as an equity tail hedge; rather, it may be viewed as an additional source of uncorrelated returns.

Figure 1: Low Correlation to Traditional Assets

January 2000 through December 2020

	SG Discreationary Macro Index	HFRI Macro Index	HFRI Hedge Fund Index
S&P 500 Index	0.20	0.22	0.80
MSCI World Index	0.25	0.30	0.86
Bbg Barclays US Bond Index	0.12	0.23	0.03
Bbg Barclays Global Bond Index	0.11	0.38	0.26

Figure 2: Discretionary Macro Performs Well Across the Market Cycle

January 2000 through December 2020

	← Bear Market			Choppy/Flat Market			Bull Market →	
When MSCI World 12 Month Return is:	-30% or lower	-20% to -30%	-10% to -20%	0% to -10%	0% to 10%	10% to 20%	20% to 30%	30% or higher
MSCI World Index	-41.5%	-23.6%	-14.9%	-3.9%	6.3%	14.6%	23.4%	39.9%
Bloomberg Barclays Global Aggregate Index	-0.9%	9.0%	7.1%	4.5%	3.0%	4.4%	5.3%	11.4%
HFRI Hedge Fund Index	-16.0%	-1.8%	0.5%	0.0%	5.1%	9.3%	12.6%	21.1%
HFRI Macro Index	1.9%	6.9%	5.8%	1.9%	3.8%	4.6%	6.7%	12.4%
SG Discretionary Macro Index	2.5%	12.3%	11.8%	3.9%	4.5%	6.4%	8.5%	15.8%

RECENT PERFORMANCE CHALLENGES

Discretionary macro fared well in the 2000s and through the 2008 Global Financial Crisis, when it was one of the few strategies that offered equity crisis protection. Since then, however, discretionary macro managers posted more muted returns (see Figure 3), especially relative to stock and bond bull market returns over the last decade. However, since discretionary macro strategies have no persistent equity beta, it is not surprising that the strategy has underperformed equities in recent years. It is also important to note that discretionary macro seeks absolute returns and should not be benchmarked versus equities. Rather, discretionary macro is potentially a valuable portfolio construction tool that complements – rather than competes with – traditional assets. The strategy may provide profit opportunities due to its inherent ability to go long and short a diverse, generally liquid universe of markets traded, and its flexibility in trading evolving market themes.

Figure 3: Recent vs Long-Term Performance

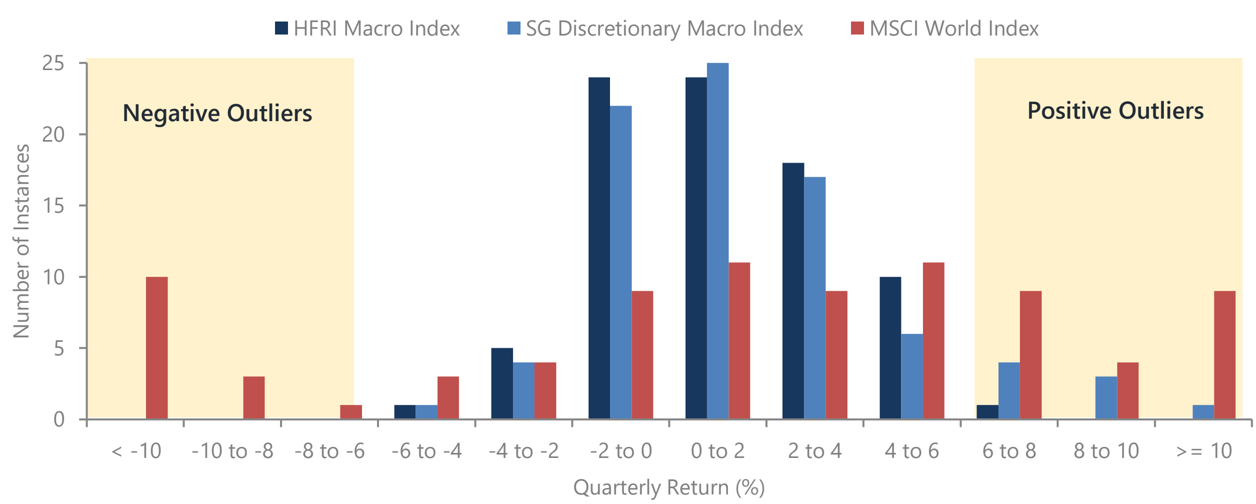
For the period ending December 2020

	Last 5 Years			Last 10 Years			Since Jan-00		
	Annualized Return	Annualized Volatility	Worst Drawdown	Annualized Return	Annualized Volatility	Worst Drawdown	Annualized Return	Annualized Volatility	Worst Drawdown
MSCI World Index	10.1%	15.2%	-21.4%	7.7%	14.0%	-21.4%	3.1%	15.6%	-55.4%
Bloomberg Barclays Global Aggregate	4.8%	4.7%	-7.1%	2.8%	4.4%	-7.7%	4.7%	5.5%	-10.1%
HFRI Hedge Fund Index	6.1%	7.2%	-11.5%	4.2%	6.1%	-11.5%	5.5%	6.5%	-21.4%
HFRI Macro Index	2.1%	4.5%	-6.8%	1.0%	4.3%	-8.0%	4.4%	5.1%	-8.0%
SG Discretionary Macro Index	2.3%	3.9%	-5.4%	2.1%	3.4%	-5.8%	6.7%	5.2%	-5.9%

In addition, although discretionary macro experienced an extended period of smaller returns in the years leading up to 2020, the strategy also recorded smaller drawdowns relative to stocks, bonds, and the broader hedge fund index. Likewise, positive skew characteristics of discretionary macro can also be observed. Positive skew is a desirable characteristic because the strategy tends to exhibit more positive extremes than negative, with potentially many instances of smaller return periods in between (see Figure 4 below). These positive extremes often occur when there are clear catalysts for directional market moves (which can be either bullish or bearish) and offer the potential to offset sustained periods of equity declines.

Figure 4: Positive Skew of Discretionary Macro

January 2000 through December 2020



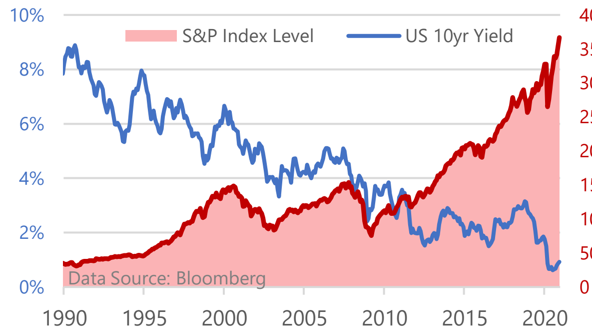
DISCRETIONARY MACRO OUTLOOK: WHY NOW?

What should we expect of discretionary macro looking forward? From a portfolio construction standpoint, heightened market uncertainty, low or negative yields for benchmark government bonds, and rising inflation expectations point to an increased need for diversifying strategies such as discretionary macro. For discretionary macro in particular, central bank activity and ongoing economic developments may result in significant trading opportunities. Here, we summarize some key considerations regarding portfolio construction and macro trading opportunities.

HIGH STOCK/BOND VALUATIONS?

For the decade preceding the March 2020 equity sell-off, U.S. stocks enjoyed the longest running bull market in history. Meanwhile, bonds have enjoyed a near 40 year bull market. And while the 20% equity market drawdown was certainly a shock to the markets, it was only a few short months later that stocks rebounded to new highs. Whether or not the sky will fall for passive stock and bond holdings, an increased wave of uncertainty for several years to come underscores the need to build a well-diversified portfolio.

Figure 5: Downward Trend of US 10yr and Record Equity Valuations January 1990 through December 2020



THE NEED FOR FIXED INCOME ALTERNATIVES

Investors have historically allocated to bonds both for yield and diversification during equity market declines. However, the historically low yields of today may produce less compelling fixed income returns going forward. Meanwhile, traditional safe haven bonds could prove less safe given elevated bond prices and an uncertain economic landscape of extreme fiscal and monetary policy. As yields have declined, there is evidence that the negative beta afforded by fixed income has also declined – and correspondingly their ability to offer equity crisis protection has also diminished (see Figure 6). Moreover, history shows that diversification properties of bonds are not guaranteed (see Figure 7). Looking ahead, if fixed income is less capable of delivering both material return and crisis protection, it will be important to have allocations to diversifying strategies that can.

Figure 6: Fixed Income Beta during Equity Declines
Based on earliest available data for each respective index to July 2020*

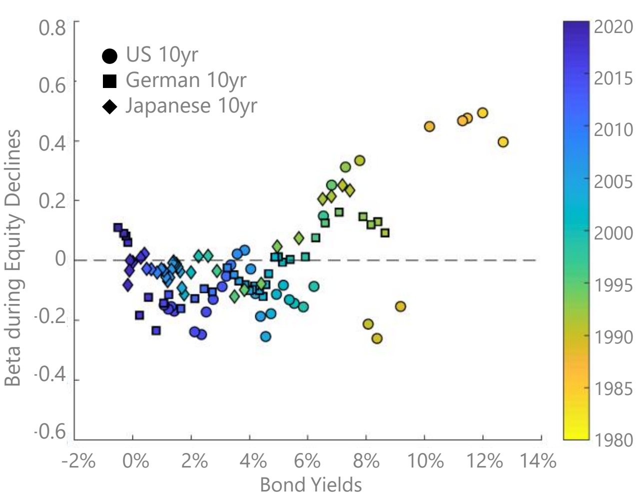


Figure 7: Historical Stock/Bond Correlations
January 1900 to December 2020, 5yr Rolling Window

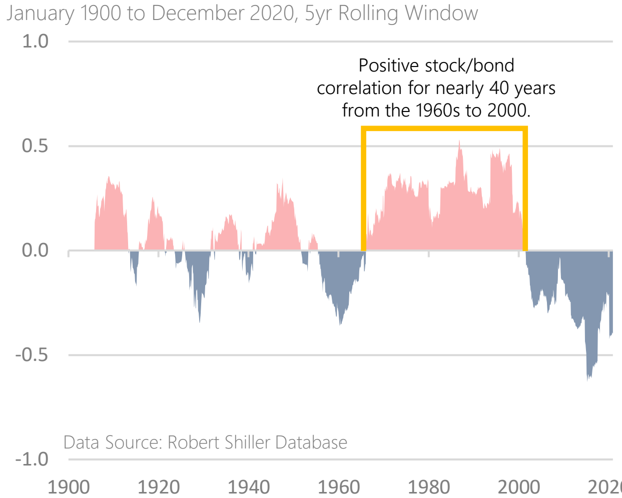


*Figure 6 represents the conditional beta of government bond futures (US 10 year Treasury, German 10 year bund, and JGB 10 year) with respect to stock indices (S&P 500, DAX, and TOPIX), when the latter posted rolling monthly returns of -2% or worse. Data is shown from January 1983 for the US 10 year, January 1989 for the German 10 year, and October 1987 for the Japanese 10 year based on index data sourced from Bloomberg.

FAIT: LOW YIELDS AND RISING INFLATION

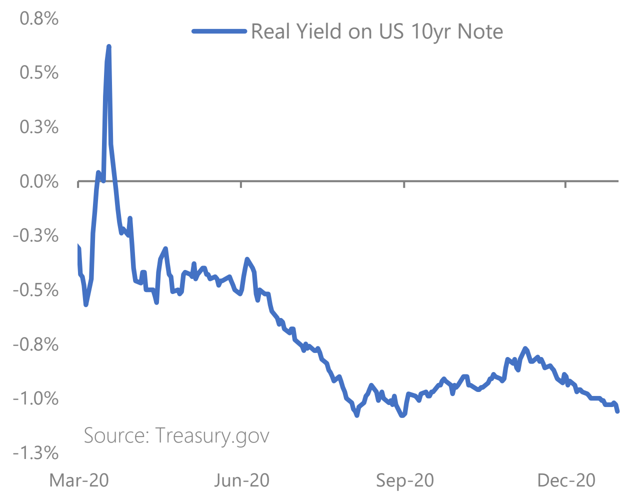
The Fed's Flexible Average Inflation Targeting ("FAIT") framework provides forward guidance for a prolonged period of low rates, which has real implications for investor allocations: with interest rates set to remain low for the foreseeable future and inflation expectations theoretically on the rise, the value of holding bonds inevitably depreciates. Investors should consider other strategies that have the potential to deliver material returns with low correlation to equity markets. At the same time, we see this same theme as a potentially attractive trading opportunity for discretionary macro managers: with global central banks making fundamental changes to their policy, macro factors continue to be a strong catalyst for markets.

Figure 8: Rising Inflation Expectations

Since COVID-19 Crisis, March 1, 2020 to December 31, 2020

Figure 9: Falling Real Yields

Since COVID-19 Crisis, March 1, 2020 to December 31, 2020



POTENTIAL MACRO TRADING OPPORTUNITIES

We are optimistic about the current macro trading environment and believe that central bank activity, fiscal policy, and other ongoing economic developments are creating significant opportunities. In addition, we believe that the current opportunity set is a longer-term dynamic, and not a short-term phenomenon. The below macroeconomic themes could present significant opportunities for discretionary macro traders:

- **Central Bank Stimulus Measures:** Global central banks remain extremely dovish even as their discussions have begun to transition toward a global economic recovery.
- **Interplay between Monetary and Fiscal Policy:** The Fed has maintained its opposition to a negative rates policy and, recognizing the limits of monetary policy, is looking to "pass the baton" to fiscal policy to ensure financial liquidity and a supportive economic landscape. The new administration in the U.S. may accelerate these efforts.
- **USD Weakness:** The U.S. dollar has weakened on an increasingly dovish tone from the Fed, an escalating number of coronavirus cases in the U.S., and a belligerent policy stance with China and other foreign markets.
- **Reflationary Expectations:** As the Fed continues to pin rates at the effective lower bound, long-term nominal yields may increase while real yields decline.
- **Geopolitical Regime Changes:** A new political administration under President Joe Biden is a potential catalyst for policy changes in the U.S., while geopolitical regime changes elsewhere are likely to stem from the evolving global influence of China, the UK's future outside of the EU, and D-10 democratic alliances, among other themes.

A NOTE ON MARKET VOLATILITY

Prior to March 2020, markets experienced a long run of low-volatility which many believe dampened the opportunity set for discretionary macro. Now that "volatility is back", many see this as a barometer for the strategy's success. While it is true that discretionary macro can thrive in periods of high market volatility, it should be noted that the strategy can perform well in low volatility regimes as well, as shown in Figure 10. In fact, macro returns are more closely linked with market directionality than market volatility. Macro returns strongly correspond to sustained directional moves in markets. The Graham Directional Indicator measures the strength of market directionality by quantifying the change in the price of an asset over a time period with the degree of daily price variability for a given market universe. As shown below, the Directional Indicator has been below average levels for much of 2016-2018, which corresponds to periods of challenging macro performance. The Graham Directional Indicator shows that: 1) macro performs well during periods of strong market directionality (often when there is a clear catalyst for market shifts) and 2) choppy, range-bound markets are more challenging for macro. While we cannot predict the level of directionality in markets in the coming years, we do anticipate some major macro catalysts to create sustained directional opportunities in markets.

Figure 10: Performance Across Volatility Regimes
January 2000 to December 2020

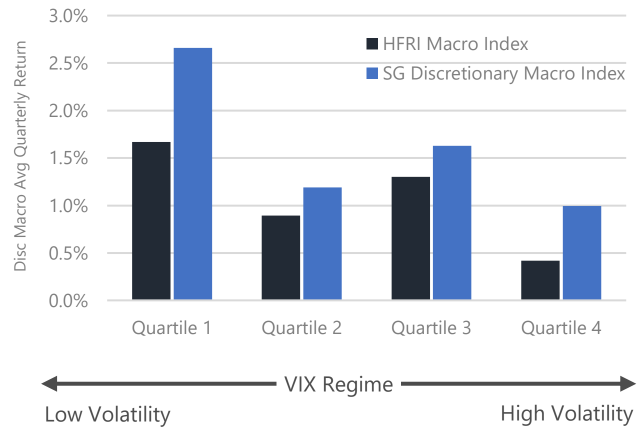


Figure 11: The Directional Indicator and Macro Returns
12 Month Rolling Window, Last 10 Years Ended December 2020

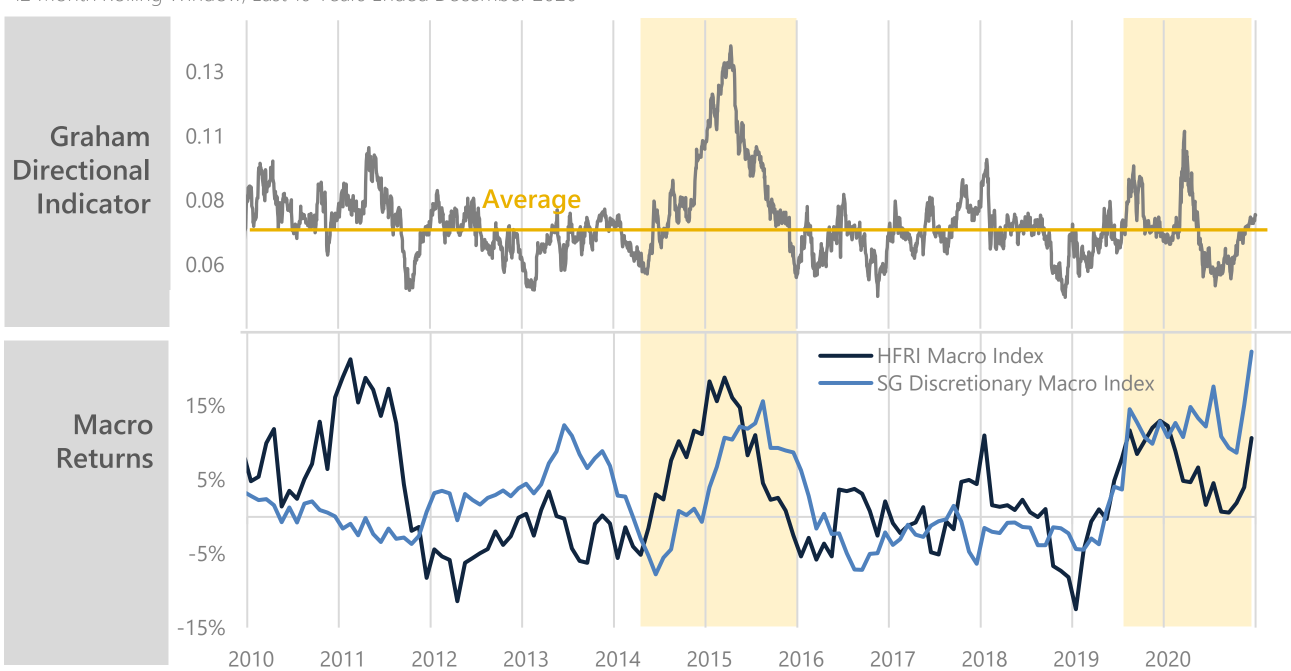


Figure 11. The Directional Indicator for each market is calculated by quantifying the change in price of an asset over a time period with the degree of daily price variability. At the aggregate level, we measure the directionality of all markets by calculating a simple average. If many markets within the group of markets demonstrate high directionality, we would expect high values of the Directional Indicator. Historical values are based on 55 of the most liquid markets traded in a directional manner by Graham, using a lookback period of 1 year.

IMPACT OF ALLOCATING TO DISCRETIONARY MACRO

Allocating to alternatives such as discretionary global macro should reduce the volatility and soften the drawdowns of an overall portfolio while adding to returns over the long run. And while it is unreasonable to expect the strategy to perform well at every discrete point in time, holding the strategy as a long-term, strategic allocation in a diversified investment portfolio offers the potential for significant benefits.

Figure 12: Potential Benefits of Allocating to Discretionary Macro

January 2000 through December 2020

	Increases Overall Returns	Improves Risk-Adjusted Returns	Lowers Overall Volatility	Reduces Drawdowns	Reduces Beta to Equities
	Annualized Return	**Information Ratio**	**Annualized Volatility**	**Worst Drawdown**	**Beta to Equities**
"Traditional" 60/40 Portfolio	5.50%	0.54	10.19%	-36.09%	0.64
Traditional Portfolio with 10% HFRI Macro Index	5.64%	0.65	8.66%	-31.38%	0.55
Traditional Portfolio with 10% SG Discretionary Macro Index	5.67%	0.61	9.32%	-32.65%	0.58

THE BOTTOM LINE

- Discretionary macro is a diversifying strategy with the flexibility to capture moves across a variety of market environments.
- With government bond yields at historic lows, there is a need for fixed income alternatives that can offer both positive returns and diversification to equities.
- Discretionary macro can potentially benefit from short-term market dislocations as well as longer-term monetary and fiscal policy shifts that will play a key role in markets over longer time horizons.
- Allocating to discretionary macro as a strategic, long-term investment within a diversified portfolio can potentially enhance risk-adjusted returns and reduce overall volatility and drawdowns.

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Bloomberg Barclays Global Bond Index: The Bloomberg Barclays Global Aggregate Bond Index is a broad-based market capitalization weighted measure of the global investment grade fixed-rate debt markets. This multi-currency benchmark includes treasury, government-related, corporate and securitized fixed-rate bonds from both developed and emerging markets issuers. There are four regional aggregate benchmarks that largely comprise the Global Aggregate Index: The US Aggregate, the Pan-European Aggregate, the Asian-Pacific Aggregate and the Canadian Aggregate Indices. The Global Aggregate Index also includes Eurodollar, Euro-Yen, and 144A Index-eligible securities, and debt from five local currency markets not tracked by the regional aggregate benchmarks (CLP, MXN, ZAR, ILS and TRY).

HFRI Fund Weighted Composite Index: The HFRI Fund Weighted Composite Index is an equal-weighted index that includes over 2000 constituent funds which have at least $50M under management or have been actively traded for at least 12 months. There are no fund of funds included in this index. All funds are reported in USD and returns are reported net of all fees on a monthly basis.

HFRI Macro Index: The HFRI Macro Index is a sub-index of the HFRI Fund Weighted Composite Index and is composite index of over 900 Investment Managers which trade a broad range of strategies in which the investment process is predicated on movements in underlying economic variables and the impact these have on equity, fixed income, hard currency and commodity markets.

SG Discretionary Macro Index: The SG Macro Trading (Discretionary) Index is a subset of the SG Macro Trading Index designed to represent global macro managers who typically employ top-down fundamental research to forecast the effect of global macroeconomic and political events on the valuation of financial instruments. These strategies are discretionary and are frequently focused on a diversified basket of instruments. Managers must meet the following criteria: must trade predominantly a global macro strategy (as determined by SG); and must have Firm AUM greater than $30 million. The SG Macro Index is equally weighted, rebalanced monthly, and reconstituted quarterly.

S&P 500 Total Return Index: An unmanaged, market value-weighted index measuring the performance of 500 U.S. stocks chosen for market size, liquidity, and industry group representation. Includes the reinvestment of dividends. The S&P 500 index components and their weightings are determined by S&P Dow Jones Indices.

Traditional 60/40 Portfolio: Reflects a portfolio with a 60% allocation to equities and a 40% allocation to bonds as represented by the MSCI World Index and the Bloomberg Barclays Global Bond Index, rebalanced monthly.

MSCI Word Index: A market cap weighted stock market index of 1,652 global stocks and is used as a common benchmark for 'world' or 'global' stock funds. The index includes a collection of stocks of all the developed markets in the world, as defined by MSCI. The index includes securities from 23 countries but excludes stocks from emerging and frontier economies.

VIX Index: The VIX reflects a market estimate of future volatility, based on the weighted average of the implied volatilities of S&P 500 Index options for a wide range of strikes.

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