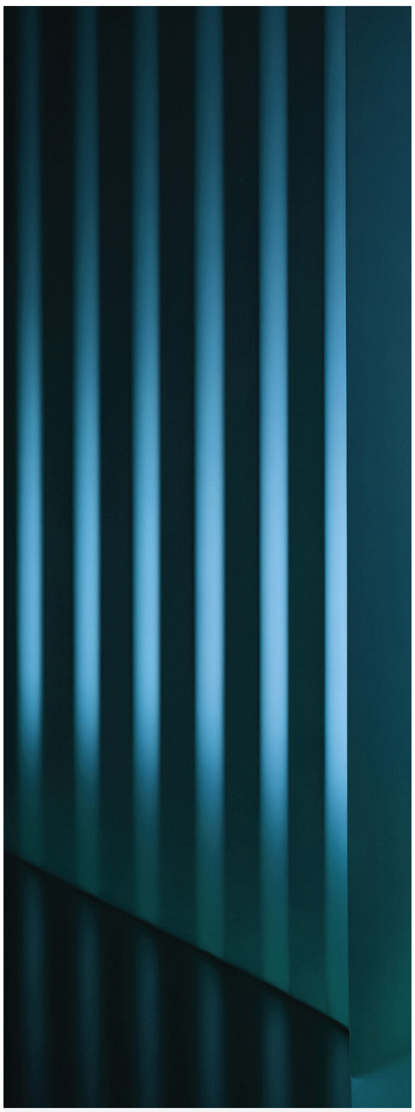
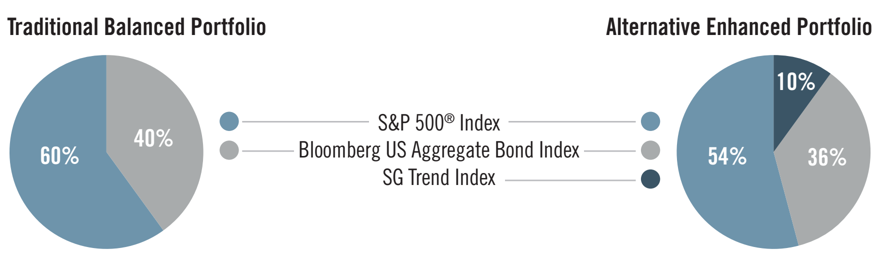
An Introduction to Managed Futures

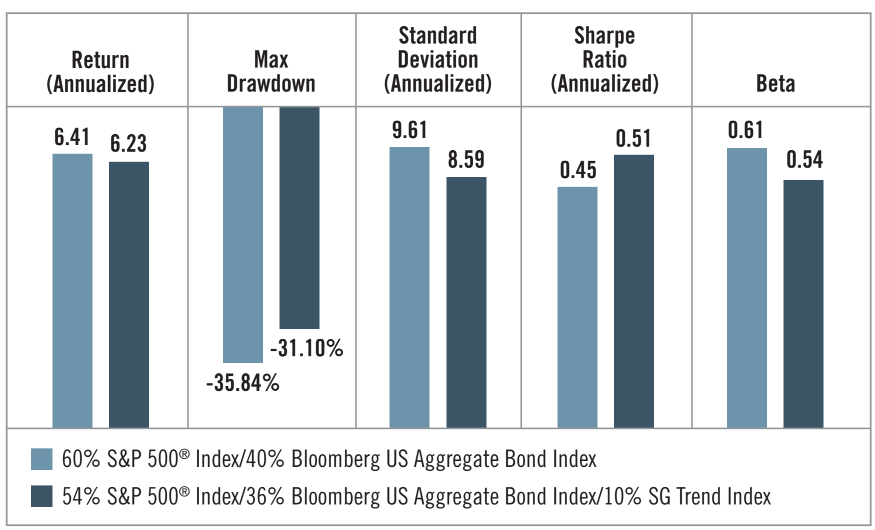
Managed futures strategies, including trend following, are an alternative investment that can offer a unique source of returns to complement a traditional stock and bond portfolio.



Managed futures strategies trade in a broad spectrum of global futures and other derivative contracts across major stock, bond, currency, and commodity markets. Trend-following strategies, which are one of the most popular styles of managed futures strategies, attempt to profit from price momentum in markets that have trended in the same direction for a period of time, either up or down. Historically, managed futures have generated long-term absolute returns independent of overall market direction, providing a differentiated source and pattern of returns when compared to traditional stock and bond portfolios, which traditionally profit only from rising markets. These strategies tend to be uncorrelated to traditional asset classes over the long term and therefore may offer enhanced diversification benefits to an investment portfolio.

POTENTIAL FOR HIGHER RISK-ADJUSTED RETURNS



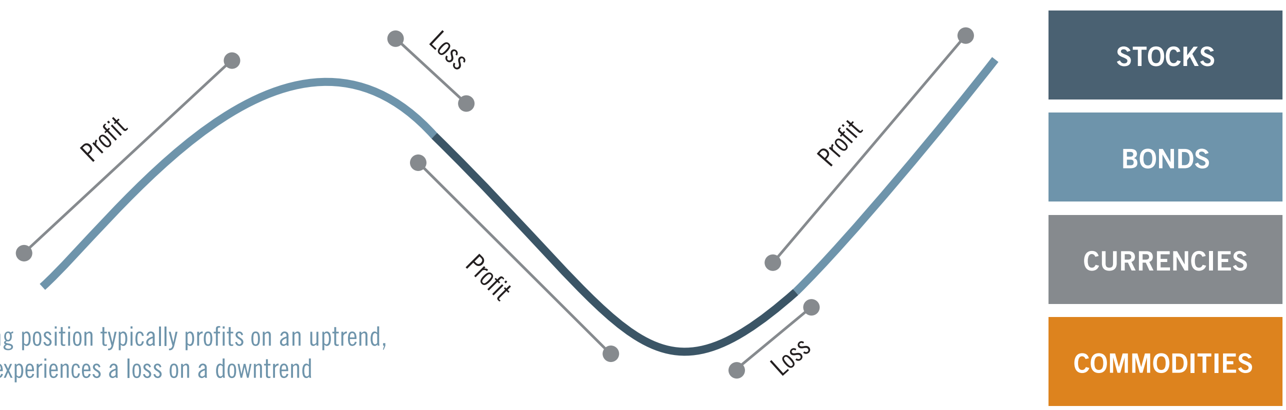


Past performance is not indicative of future results. Source: Morningstar Direct and Virtus Performance & Analytics. All data calculated since SG Trend Index inception (1/1/2000 – 12/31/23), Sharpe Ratio (risk-free rate is 90-Day Treasury Bill) and Beta calculated against the S&P 500® Index. See page 7 for glossary and index definitions.

Futures Contracts Explained

Futures contracts are standardized, exchange-traded derivatives contracts. Their value is derived from the price of an underlying asset (e.g., a stock index, government bond index, currency, or commodity) to be delivered on a specified date in the future. If you are buying a future, you are said to be going "long" the asset. If you are selling, you are said to be going "short" the asset. Generally, actual delivery of the asset is not expected when the contract expires. Instead, the parties exchange the difference in the price of the asset until maturity. And while it sounds complicated, it's important to note that futures contracts are standardized and traded on regulated global exchanges; they provide a highly transparent and liquid path to get both long and short exposures to a wide range of asset classes. Most Managed Futures strategies allocate capital as margin or collateral to maintain futures positions with global futures exchanges and the larger remainder is invested in highly liquid cash equivalent securities.

TREND FOLLOWING BASICS



A long position typically profits on an uptrend, but experiences a loss on a downtrend

A short position typically profits on a downtrend, but experiences a loss on an uptrend

Trend Strategies Defined

Trend-following strategies have the flexibility to capture momentum, going long in markets that are trending higher and short in markets that are trending lower, with the expectation that price movements continue their direction. Well-documented behavioral biases like anchoring, confirmation bias, and herding, as well as risk management models, can drive trending markets. Trend strategies are data driven. Using market data, trend managers follow price movements and focus on what the market is currently doing, in contrast to a fundamental approach that tries to predict what markets should be doing. The typical trend investor acts on short-, medium-, and long-term quantitative signals of how various markets may play out. They use a systematic, rules-based approach, eliminating human emotion from the decision-making process of when to buy, hold, or sell. Said differently, they use a quantitative process based on technical analysis.

PERSISTENT BEHAVIORAL BIASES

Anchoring – relying on historical data and underreacting to new information, which manifests in slower price movements both up and down.

Confirmation Bias – investors tend to look for information that confirms their views and beliefs, leading them to buy assets that are trending up and selling assets that have declined.

Herding – after prices trend in a direction for a period of time, investors tend to jump on the bandwagon.

Key Features of Trend Strategies

Unconstrained & Agnostic	Can go either long or short any market or asset class, with no directional bias
Diversified	Trade a global mix of equities, fixed income, currencies, and commodities
Systematic	Mitigate potential biases in human decision making
Liquid	Generally, trade liquid asset classes
Trading Oriented	Can vary across short-, medium-, and long-term holding periods
Technical Analysis	Primarily price-based inputs
Data Driven	Research from diverse, mathematics-intensive fields (physics, engineering, and statistics)

The Price of Admission

Managed futures strategies, like most investment approaches, have periods when they tend to work and periods when they struggle. Generally speaking, trend strategies have performed best when markets experience steadily rising or falling prices. On the flip side, they have tended to underperform in range- bound markets with no major price trends or when markets have exhibited choppy price action or significant price reversals over short periods of time.

TREND STRATEGIES IN BULL AND BEAR MARKETS

Average Quarterly Returns: January 2000-December 2023

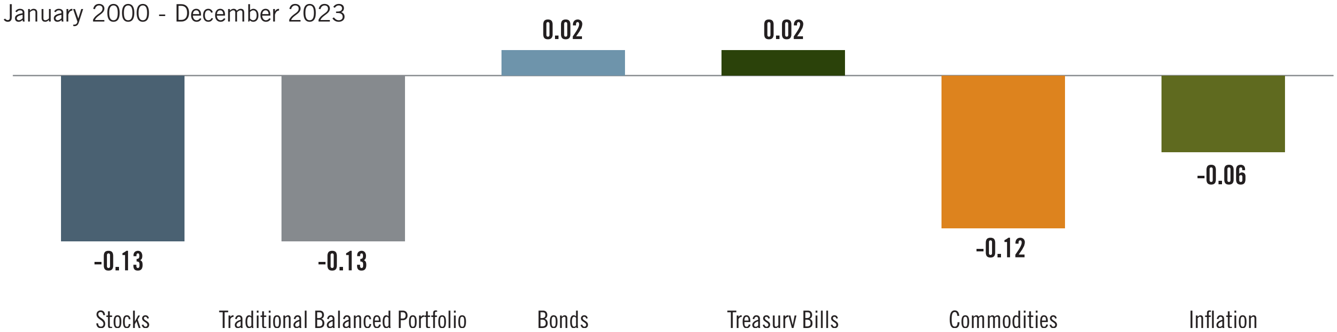
Past performance is not indicative of future results. Source: Morningstar Direct and Virtus Performance & Analytics. Trend strategies performance represented by the SG Trend Index using the average of quarterly cumulative returns since the Index inception (1/1/2000). Bear markets represented by the worst 25% of the S&P 500® Index's quarterly performance, bull markets by the best 25%, and normal markets by the middle 50% of quarterly returns.

The Benefits of Managed Futures Strategies

A Differentiated Source and Pattern of Returns – Managed futures strategies have historically provided a differentiated source of returns over time, relative to traditional markets like stocks and bonds. The historically low long-term correlation to traditional stocks and bonds has the potential to provide much-needed diversification or "Crisis Alpha" especially during periods of market dislocation.

HISTORICALLY LOW CORRELATION OF MANAGED FUTURES

January 2000 - December 2023

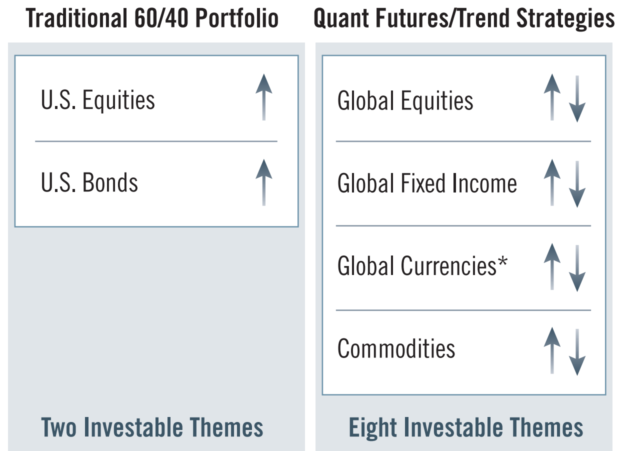


Past performance is not indicative of future results. Chart shows correlations of the SG Trend Index to these indices: Stocks: S&P 500® Index, Traditional Balanced Portfolio: 60/40 S&P 500 Index/Bloomberg US Aggregate Bond Index, Bonds: Bloomberg US Aggregate Bond Index, Treasury Bills: Bloomberg US 1-3 Month Treasury Bill Index, Commodities: S&P Goldman Sachs Commodity Index, Inflation: U.S. Consumer Price Index. Source: Morningstar Direct and Virtus Performance & Analytics. See page 7 for glossary and index definitions.

Opportunity to Perform Well in Diverse Markets – Managed futures strategies have the flexibility to broadly invest across global markets, making it possible to profit from trends in stock, bond, currency, and commodity markets. There are inherently more investable themes with the ability to take long and short positions in markets that may be positively or negatively impacted by geopolitical events, economic cycles, and investor sentiment.

The Potential for Crisis Alpha – "Crisis alpha" is the potential opportunities from persistent trends during periods of market stress or crisis. When markets are in crisis, they tend to have very strong trends and may be disconnected from traditional market fundamentals. For example, there may be periods where equity markets and bond markets are strongly correlated, or when oil prices skyrocket. Each crisis differs as to its specific circumstances and what trends are strongest. By adapting to the circumstances of each crisis, and investing in highly liquid assets, Managed Futures strategies can take advantage of trends across a diversified group of global asset classes to provide positive returns even when other strategies tend to struggle.

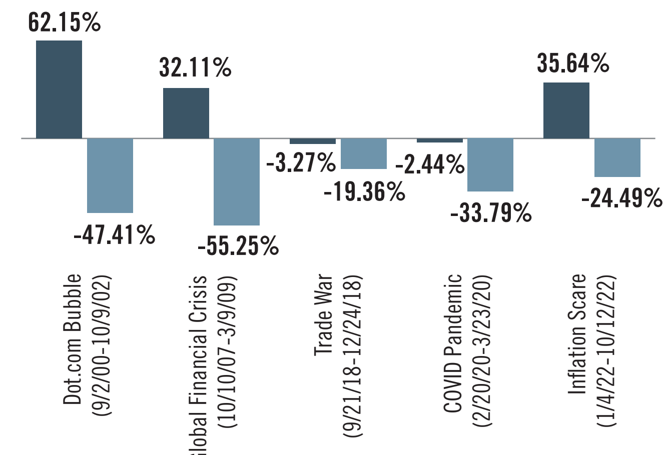
AN EXPANDED TOOL KIT



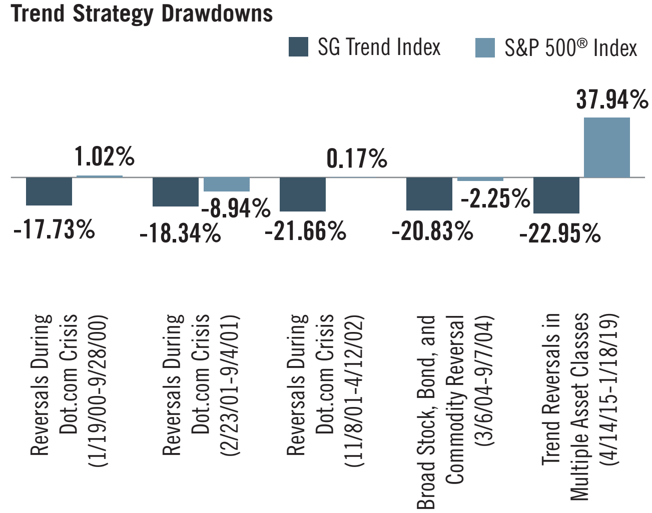
*Currencies invested long/short relative to the U.S. dollar.

POTENTIAL FOR DIVERSIFICATION IN TOUGH MARKETS

Performance of Trend Strategies During the Five Largest S&P 500® Index Drawdowns



Performance of the S&P 500® Index During the Five Largest Trend Strategy Drawdowns



Past performance is not indicative of future results. Time periods chosen represent periods in which the S&P 500 or SG Trend Index declined by more than 15%, returns are cumulative. Data from January 1, 2000, which was the inception of the SG Trend Index, through December 31, 2023. Source: Morningstar Direct and Virtus Performance & Analytics. It is not possible to invest directly in any index. See page 7 for glossary and index definitions.

AlphaSimplex Group

Since the firm's founding in 1999, AlphaSimplex has developed systematic, quantitative alternative investment strategies that are attuned to changing market dynamics.

AlphaSimplex
A VIRTUS INVESTMENT PARTNER

Adaptive Strategies for Evolving Markets

AlphaSimplex strives to help investors meet their long-term goals in ever-evolving markets by analyzing market behavior and risk. AlphaSimplex's investment philosophy is based on the Adaptive Markets Hypothesis, an innovative theory of market behavior. The firm develops systematic investment strategies that are designed to adapt to changing market dynamics, using primarily liquid futures and forward contracts.

Our Strategy

The AlphaSimplex Managed Futures Strategy

AlphaSimplex believes its managed futures strategy is an important part of a durable, diversified portfolio. The strategy uses a pure trend-following approach to take advantage of momentum in a range of liquid futures and forward contracts. The strategy is quantitative and systematic; it relies on a number of adaptive models working together to identify trends over multiple assets, multiple trend signals, and multiple time frames, using both fixed and adaptive horizon methods, with no directional bias. This managed futures strategy is risk-managed in an attempt to manage volatility and narrow the range of potential outcomes, and uses dynamic risk allocation to systematically adjust portfolio weights based on degree of confidence in a trend. In addition, AlphaSimplex strives for transparency in all of the firm's products and will provide reports to clients on performance, exposures, and attribution as requested.

Our Philosophy

Adaptive Strategies for Evolving Markets

The philosophy that informs the development of all of AlphaSimplex's strategies is based on the Adaptive Markets Hypothesis ("AMH"). An innovative theory of market behavior, the AMH recognizes that financial markets are neither always efficient nor always rational, but that they are highly competitive and adaptive. As a result, market conditions are ever-changing; market volatility, risk premia, and cross-asset correlations are not static. The implication is that investment strategies must continuously adapt as markets evolve in order to deliver more consistent performance.

Standing Apart from the Competition

AlphaSimplex believes that quantitative investment strategies that start from an assumption that markets behave according to a fixed set of rules (e.g., factor-based linear models) share a critical weakness: the factors are often static. As a result, quantitative models are often criticized for being too easily surprised by—and slow to react to—sharp and non-linear market movements. In contrast, AlphaSimplex designs models recognizing that financial markets are highly competitive and adaptive. AlphaSimplex's models incorporate innovative statistical techniques for dynamically weighting multiple models to adapt to different market conditions, factors, and time horizons.

DIFFERENTIATORS OF THE ALPHASIMPLEX STRATEGY

- Pure price trend-following (no allocation to other systematic strategies like carry, mean reversion, or relative value)
- Adaptive quantitative techniques to systematically shift between short-, medium, and long-horizon trends based on confidence in trend strength
- A meaningful allocation to short-horizon trend signals
- Higher target volatility combined with dynamic risk allocation across asset classes based on the degree of confidence in each asset's trend

CHARACTERISTICS OF THE ALPHASIMPLEX INVESTMENT PROCESS

- Emphasis on liquidity
- Systematic, quantitative process
- Adaptive multi-model strategies
- Portfolio volatility scaled as often as daily
- Risk-based asset allocation
- Flexibility to be short or long a market (where allowed)
- Drawdown controls

WHAT WE BELIEVE

- Financial markets are highly competitive and adaptive
- Risk premia, market volatility, and cross-asset correlations will vary over time
- A disciplined approach to risk management can help investors stay invested over the long term
- Combining multiple assets, time horizons, and models can increase the diversification of a strategy

Approach and Process

To AlphaSimplex, risk management means seeking to contain the potential magnitude of losses, consistent with investor expectations. AlphaSimplex incorporates dynamic risk management systems into all of its strategies. The firm's proprietary risk models are designed to detect any change in portfolio risk, allowing for daily monitoring and management of portfolio positions.

The Value of Managing Risk Rather Than Chasing Returns

AlphaSimplex strategies are designed to help investors stay invested even through the most volatile periods of market dislocation. Using dynamic risk-control technology, we seek to adapt our portfolios to changing levels of market volatility and take advantage of opportunities that may be present.

Instead of simply accepting the market's current level of risk, AlphaSimplex adjusts the position sizes in our portfolios daily to help ensure that they stay consistent with investor expectations of portfolio risk. Combined with investment models designed to adapt to current market dynamics, our portfolios strive to manage investor expectations and deliver attractive long-term returns.

ALPHASIMPLEX MANAGED FUTURES STRATEGY'S INVESTMENT UNIVERSE

EQUITY INDEX FUTURES - 25	BOND & RATE FUTURES - 22	COMMODITY FUTURES - 29	CURRENCIES - 17
A-Share 50 (China)	Australian 10-Year Note	Aluminum	Australian Dollar
CAC 40 (France)	Australian 3-Year Note	Brent Crude	Brazilian Real
DAX (Germany)	Canadian 10-Year Note	Cocoa	British Pound
DJ EURO STOXX 50 (Europe)	French 10-Year Note (OAT)	Coffee	Canadian Dollar
DJIA (U.S.)	German 2-Year Note (Schatz)	Copper (CMX & LME)	Chinese Yuan
Euro STOXX 600 (Europe)	German 10-Year Note (Bund)	Corn	Euro
FTSE 100 (UK)	German 30-Year Bond (BUXL)	Cotton	Indian Rupee
FTSE Taiwan (Taiwan)	German 5-Year Note (Bobl)	Crude Oil	Japanese Yen
FTSE/JSE Top 40 (South Africa)	Italian 10-Year Note (BTP)	EU Carbon Emissions	Mexican Peso
Hang Seng (Hong Kong)	Italian 3-Year Note (BTP)	Gas Oil	New Zealand Dollar
H-shares (Hong Kong)	UK 10-Year Note (Gilt)	Gasoline	Norwegian Krone
IBEX 35 (Spain)	U.S. 10-Year Note	Gold	Polish Zloty
MSCI EAFE	U.S. 2-Year Note	Heating Oil	Singapore Dollar
MSCI Emerging Markets	U.S. 30-Year Bond	Iron Ore	South African Rand
MSCI Singapore (Singapore)	U.S. 5-Year Note	Kansas Wheat	Swedish Krona
NASDAQ 100 (US)	U.S.-Ultra 10-Year Note	Live Cattle	Swiss Franc
Nikkei 225 (Japan)	U.S. Ultra-Long Bond	Lean Hogs	Turkish Lira
OMX 30 (Sweden)	Canadian Overnight Rate	Natural Gas	
Russell 2000 (U.S.)	3-Month Australian Bill	Nickel	
S&P 400 MidCap (U.S.)	3-Month Canadian Rate	Palladium	
S&P 500 (U.S.)	EURIBOR	Platinum	
S&P/MIB (Italy)	SONIA	Silver	
S&P/TSX 60 (Canada)	SOFR	Soybean	
SPI 200 (Australia)		Soymeal	
TOPIX (Japan)		Soyoil	
		Sugar	
		Wheat	
		Zinc	

Sample assets traded by the AlphaSimplex Managed Futures Strategy as of December 31, 2023. Does not include cash investments in money market instruments. Currencies traded through forwards or futures. The investment universe is subject to change.

To learn more, please contact us at 800-243-4361 or visit virtus.com.

IMPORTANT RISK CONSIDERATIONS

Derivatives: Derivatives may include, among other things, futures, options, forwards and swap agreements and may be used in order to hedge portfolio risks, create leverage, or attempt to increase returns. Investments in derivatives may result in increased volatility and the portfolio may incur a loss greater than its principal investment. **Equity Securities:** The market price of equity securities may be adversely affected by financial market, industry, or issuer-specific events. Focus on a particular style or on small, medium, or large-sized companies may enhance that risk. **Interest Rate:** The values of debt instruments may rise or fall in response to changes in interest rates, and this risk may be enhanced for securities with longer maturities. **Credit Risk:** If the issuer of a debt instrument fails to pay interest or principal in a timely manner, or negative perceptions exist in the market of the issuer's ability to make such payments, the price of the security may decline. **Currency Rate:** Fluctuations in the exchange rates between the U.S. dollar and foreign currencies may negatively affect the value of the portfolio's shares. **Commodity and Commodity-Linked Instruments:** Commodity and commodity-linked instruments may experience a return different than the commodity they attempt to track and may also be exposed to counterparty risk. **Foreign & Emerging Markets:** Investing in foreign securities, especially in emerging markets, subjects the portfolio to additional risks such as increased volatility, currency fluctuations, less liquidity, and political, regulatory, economic, and market risk. **Leverage:** When a portfolio is leveraged, the value of its securities may be more volatile and all other risks may be compounded. **Financial Concentration:** Because the portfolio is presently heavily weighted in the financial sector, it will be impacted by that sector's performance more than a portfolio with broader sector diversification. **Portfolio Turnover:** The portfolio's principal investment strategies may result in a consistently high portfolio turnover rate. A higher portfolio turnover rate may indicate higher transaction costs and may result in higher taxes when the portfolio is held in a taxable account. **Quantitative Model:** Investments selected using quantitative models may perform differently from the market as a whole or from their expected performance. There can be no assurance that use of a quantitative model will enable the portfolio to achieve positive returns or outperform the market. **Market Volatility:** The value of the securities in the portfolio may go up or down in response to the prospects of individual companies and/or general economic conditions. Local, regional, or global events such as war, terrorism, pandemic, or recession could impact the portfolio, including hampering the ability of the portfolio's manager(s) to invest its assets as intended. **Prospectus:** For additional information on risks, please see the fund's prospectus.

Glossary

Beta is a quantitative measure of the volatility of a given portfolio relative to the overall market. Higher beta suggests higher volatility. Beta can also refer to relative volatility to a portfolio's stated benchmark. **Correlation:** A measure that determines the degree to which two variables' movements are associated. The correlation will vary from -1 to +1. A -1 indicates perfect negative correlation and +1 indicates perfect positive correlation. **Maximum Drawdown** measures the peak-to-trough decline during a specific record period of an investment, fund, or commodity. A drawdown is usually quoted as the percentage between the peak and the trough. **Sharpe Ratio** measures the efficiency, or excess return per unit of risk, of a manager's returns. It is calculated by taking the portfolio's annualized return, minus the annualized risk-free rate (typically the 30-Day T-Bill return), divided by the portfolio's annualized standard deviation. The greater the Sharpe Ratio, the better the portfolio's risk adjusted return. **Standard Deviation** measures variability of returns around the average return for an investment portfolio. Higher standard deviation suggests greater risk.

Index Definitions

The **Bloomberg US Aggregate Bond Index** measures the U.S. investment grade fixed rate bond market. The index is calculated on a total return basis. The **Bloomberg US Treasury Bill 1-3 Month Index** includes all publicly issued zero-coupon U.S. Treasury Bills that have a remaining maturity of less than 3 months and more than 1 month, are rated investment grade, and have $250 million or more of outstanding face value. The **Consumer Price Index (CPI)** is a measure of the average change over time in the prices paid by urban consumers for a market basket of consumer goods and services. The **S&P 500® Index** is a free-float market capitalization-weighted index of 500 of the largest U.S. companies. The **S&P GSCI® Index** is designed to reflect the performance of a production-weighted basket of physical commodities. The index is calculated on a total return basis with all proceeds reinvested. The **SG Trend Index** is designed to represent the performance of the 10 largest Trend Following CTA programs in the managed futures space. To qualify for inclusion in the index, a program must be open to new investment, report returns on a daily basis, be an industry recognized trend follower as determined at the discretion of the SG Index Committee, and must exhibit significant correlation to trend following peers and the SG Trend Indicator. The index is equally weighted, and rebalanced and reconstituted annually. AlphaSimplex Group, LLC is a part of the SG Trend Index. All indexes are unmanaged, their returns do not reflect any fees, expenses, or sales charges, and they are not available for direct investment.

The commentary is the opinion of AlphaSimplex. This material has been prepared using sources of information generally believed to be reliable; however, its accuracy is not guaranteed. Opinions represented are subject to change and should not be considered investment advice or an offer of securities.

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