

DYNAMIC. FLEXIBLE. REPEATABLE.

INVESTMENT PROCESS

Our complementary suites of portfolio solutions, the **Astra**, **Dynamic** and **Athena** series, are engineered for flexibility in all market environments. They may be used individually as a stand-alone solution or as components of a diversified multi strategy portfolio to meet the objectives and risk tolerance of most investors. Portfolio construction is managed through the deployment of multiple proprietary models that collectively focus on dynamic datasets in real-time to identify and quantify both risks and opportunities.



Quartz Astra Series

Stock Selection Strategies

Employ a concept referred to as “Economic Margin” to identify value-creating firms through identifying and understanding the key drivers of corporate performance and market valuations. Economic Margin measures the true return a company earns relative to its actual cost of capital.

- ✓ “Bottom-Up” Equity Research
- ✓ Focused Stock Portfolios
- ✓ Model Based Stock Ranking
- ✓ Focus: High Economic Margin

Quartz Astra Core Equity

Quartz Astra Growth Equity

Quartz Astra Dividend Equity

Quartz Astra Natural Resources



Quartz Dynamic Series

Risk-Managed Portfolios

Advanced research into economic, fundamental, technical, and market psychology factors. As these market conditions change, asset allocation is dynamically changed in an effort to capture upside market movements and avoid protracted downturns.

- ✓ “Top-Down” Global Macro
- ✓ Dynamic Asset Allocation
- ✓ Unconstrained Portfolios
- ✓ Risk Mitigation Mechanism

Quartz Dynamic Global Equity

Quartz Dynamic All-Asset

Quartz Dynamic Yield Plus



Quartz Athena Series

Behavioral Strategies

Using a deep academic foundation and our patented research platform AthenaInvest analyzes macro and micro behavioral patterns to discover unique opportunities and deliver innovative investment strategies.

- ✓ “Inside-Out” Behavioral Finance
- ✓ Micro Behavior Stock Selection
- ✓ Macro Behavior Market Exposure
- ✓ Focus: Specialized Equity

Quartz Athena Global Tactical

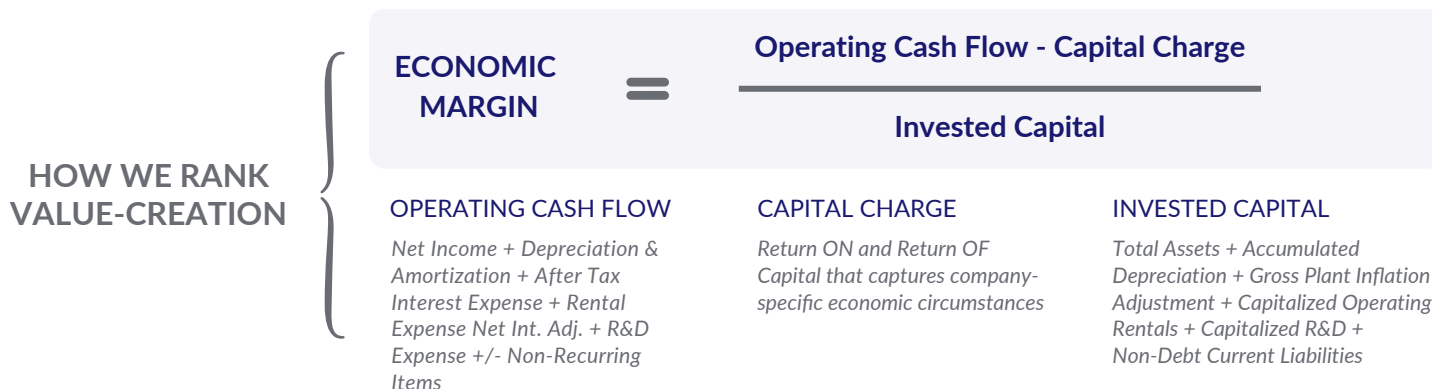
Quartz Athena Pure Valuation

Quartz Athena Macro Micro

Investment Process: Astra Series

Quartz Partners' Astra models employ a concept we refer to as "Economic Margin" to identify value-creating firms through identifying and understanding the key drivers of corporate performance and market valuations.

Economic Margin measures the true return a company earns relative to its actual cost of capital.



WHY ECONOMIC MARGIN

Companies with positive Economic Margin create investor wealth by generating cash flow greater than their cost of their capital. Through connecting cash generation to the assets used to produce cash flow, Economic Margin links the balance sheet to the income statement. Accounting measures such as income or earnings fail to make this connection and therefore offer only incomplete data on corporate performance.



COMMON FUNDAMENTAL ANALYSIS LIMITATIONS

Corporate earnings generally represent only about half of a company's cash flow, and earnings do not reflect risk. *Accounting ratios* mix and generally confuse different value drivers. Return on assets and return on equity don't reflect wealth creation or destruction. In addition, different asset lifespans, asset mix, asset age, and capital structures distort various accounting ratios across firms.



MANAGEMENT QUALITY

A company can have a great product and poor management and run an unprofitable business. Management quality is assessed according to a company's ability to appropriately grow or shrink the enterprise according to its economic margin. Companies with positive economic margin should grow the business while companies with negative economic margin should increase profitability. Firms creating wealth and profitably adding assets earn our highest management score.



ECONOMIC MARGIN APPLICATION

We use a four-factor regression on historic economic margin levels, consisting of profitability, variability, trend, and invested capital. Companies with high historical economic margins attract competition resulting in more rapidly decaying economic margins. Companies with volatile historical economic margin levels usually lose their competitive advantage faster. If a company's economic margin trends upward, the competitive advantage period is extended while companies trending downward are assigned shorter periods.



DETERMINING TARGET PRICE

A discounted cash flow analysis is applied to a firm's projected economic margin to create an estimated enterprise value from which total debt is subtracted to arrive at total equity value. Once the target price is determined, we calculate the percent-to-target based on the difference between the current price and our calculated target price.



BUY AND SELL DISCIPLINE

Through our comprehensive process, potential stock purchases are identified through screening for high company grade, high investment grade, high intrinsic value grade, passing management quality, good earnings quality, and attractive momentum criteria. All holdings are reviewed weekly. Any firm whose company grade or investment grade falls below an "A", or whose target price appreciation percentage declines into single digits is reviewed for replacement. Targeted portfolio turnover is less than 40%.

Investment Process: Dynamic Series

An Adaptive Approach to a Complex Market

We challenge the status quo that a traditional “buy and hold” portfolio with a rigid mix of investments provides optimal outcomes. We also reject the idea that an investment strategy needs to choose between fundamental or technical analysis. Dynamic Series investment strategies are built using both fundamental and technical analysis. **Our model allows portfolios to adapt and dynamically capitalize on investment opportunities as they arise.**

Embrace volatility, Avoid protracted downturns

Market volatility is to be expected as part of the risk/return tradeoff. In fact these swings often present opportunities. However, there also exist market periods in which losses can exceed tolerable levels and can create “Permanent Loss of Capital”, losses that may permanently decrease the probability of reaching your investing goals. These are the periods where our PRICE matrix seeks to preserve capital when there is a high probability that major indexes will fall more than 10%.

The Goal of Tactical Rotation: Downside Protection During Protracted Downturns

S&P 500 Index 1/1/2020 to 9/1/2020



*The illustration above is hypothetical. You cannot invest directly in an index.

PRICE Analysis Matrix

Through rigorous academic research, we have developed a research framework comprised, in our view, of the most relevant economic and market data in determining the direction of the economic landscape and relative attractiveness of investments. Our PRICE analysis matrix provides a repeatable process that is flexible and allows our investment strategies to quickly adapt to changes in the economic and market landscape. The PRICE analysis matrix is comprised of five data sets and over 70 data points ranging from fundamental to technical data. Data points that when combined, historically exhibit a high probability of predicting economic cycles, investment opportunities and protracted market downturns.

POLICY

Analyzes monetary and fiscal policy from the US Federal Reserve and US Government, as well as those from foreign central banks and sovereign governments. Policy decisions drive market liquidity and sentiment and can impact investor appetite for investment risk.

RISK

Analyzes market volatility and the opportunity cost of investing. Momentum data from various asset classes and cross asset class relative strength contributes to both our defensive allocation and overall positioning amongst asset classes, sectors, styles, and factors.

INFLATION & INTEREST RATES

Analyzes bond and lending rates, consumer, manufacturing and commodity prices. This provides real-time information as to whether inflation is providing a tailwind or headwind for economic growth and investing.

CREDIT

Analyzes bond spreads, systemic financial stress data pertaining to credit and liquidity across the economic spectrum. Cheap and accessible financing is the lifeblood for both corporations and the stock market.

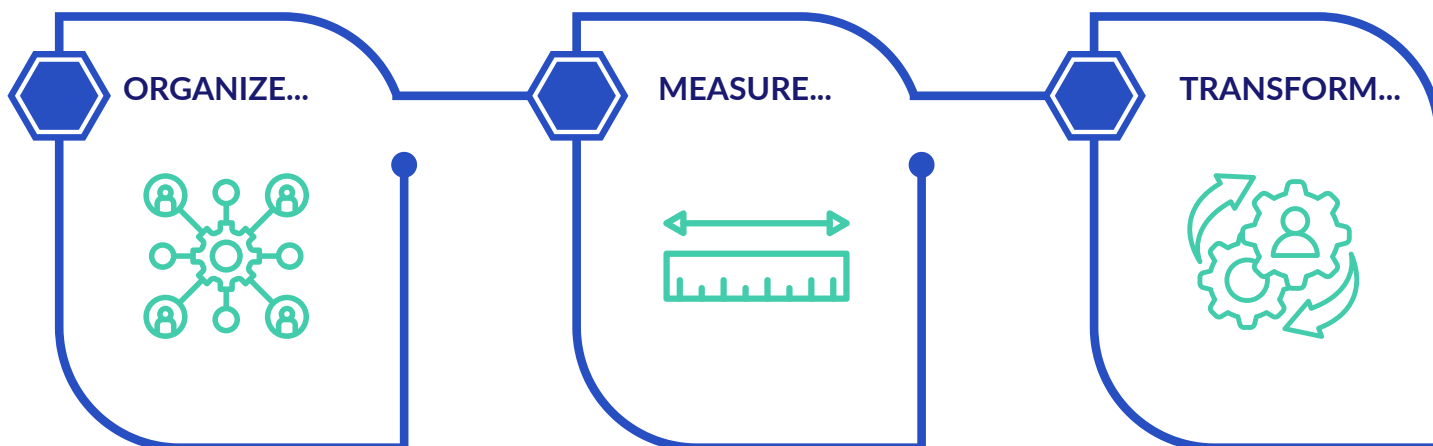
EARNINGS & ECONOMY

Analyzes information and the rate of change pertaining to housing, manufacturing consumer spending, and the general economic and corporate backdrop. This data set can help forecast long-term shifts in the business cycle and identify economic contractions.

Investment Process: Athena Series Macro Behavior

Patented Behavioral Portfolio Management

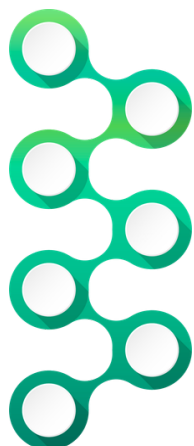
The Athena Global Tactical portfolio is managed with Athena's Behavioral Portfolio Management approach. Using an innovative patented research process, based on Behavioral Finance principles, Athena systematically measures predictive and persistent deep macro-level crowd behavioral patterns to determine portfolio rotation and exposure, which is implemented with ETFs.



Athena uses patented behavioral market indicators to gauge and select broad market exposure among various equity markets, market capitalization, or cash each month. The strategy invests in positions within US small cap, US large cap, or international equities when market indicators are strong. When indicators are very strong, the strategy's exposure can increase to twice the market to enhance returns. When indicators are weak, the strategy can move to 100% cash.

INVESTMENT UNIVERSE

Target Exposure



- Cash Equivalent
- 1X US Large Cap
- 1X US Small Cap
- 1X Developed International
- 2X US Small Cap
- 2X US Large Cap
- 2X US Developed International

MONTHLY PROCESS



Tactical Compliment to a Core Portfolio

A tactical allocation can help increase exposure to markets which are expected to perform well and reduce exposure to markets during undesirable conditions. The Athena Global Tactical ETFs systematically over or under weights selected markets to complement a long-term strategic asset allocation.

Investment Process: Athena Series *Micro Behavior*

Innovative Behavioral Stock Selection

The Athena Pure Valuation investment process uses behavioral factors to measure confidence in a company's future prospects from three independent market groups identified below. We believe these behavioral factors are often overlooked or misinterpreted by the broad market. When combined with fundamental data, these behavioral factors can identify undervalued opportunities which are currently out-of-favor but offer potentially above average price appreciation in the future.

Management Confidence

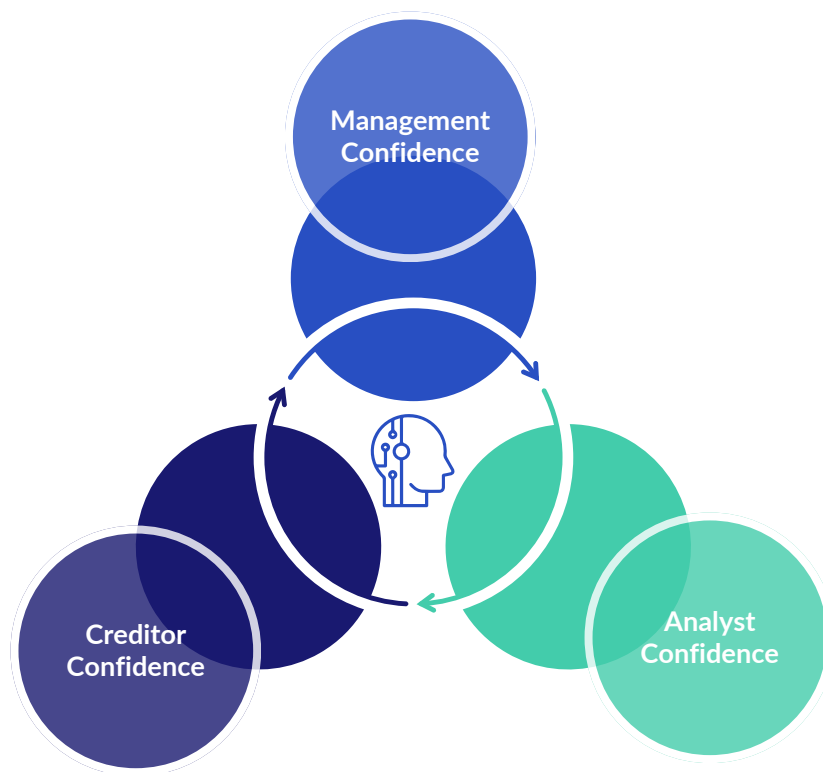
We believe the strongest signal a company's management can send to the market is paying a dividend, showing confidence that it can continue to generate cash flow in the future.

Analyst Confidence

We consider sell-side analyst earnings projections to determine the level of analyst confidence in a company.

Creditor Confidence

We favor companies in which creditors have shown high confidence through issuance of debt. Creditors don't provide financing without a belief in the strength and stability of the company, and creditors continually evaluate the company's financial strength.



Performance Compliment to a Core Portfolio

The Athena Pure Valuation strategy seeks to generate superior returns through high conviction active management. The portfolio can be used as a return enhancing component in a core and satellite approach, as a value strategy in a traditional allocation, or as a manager in a stable of managers approach.



STRATEGIES SEEK TO GROW + MITIGATE RISK

Our strategies are easily accessible with a \$10,000 minimum account size. Each strategy can be used as a standalone strategy or to complement a client's existing investment portfolio. We also can create turnkey portfolios that utilize multiple strategies in a single account to fine tune the client's investments based on their unique objectives and risk profile score.

STRATEGY	STYLE	ASSET CLASS	KEY FEATURE
Astra Core Equity	Focused Stock Picking	US Growth/Value Stocks	Focused stock portfolio utilizing our economic margin ranking model that will dynamically shift weighting to value and growth.
Astra Growth Equity	Focused Stock Picking	US Growth Stocks	Focused growth stock portfolio utilizing our economic margin ranking model to identify the top 20-25 stocks in the universe.
Astra Dividend Equity	Focused Stock Picking	US Value Stocks	Focused value stock portfolio utilizing our economic margin ranking model to identify the top 20-25 stocks in the universe.
Astra Natural Resources	Focused Stock Picking	US Commodity Stocks	Focused stock portfolio utilizing our economic margin ranking model to identify the top 20-25 stocks deriving revenue from commodities.
Dynamic Global Equity	Tactical Global Macro	Unconstrained Global Stocks	Mitigate risk through preservation of capital, generate alpha through unconstrained dynamic allocations through relative strength analysis.
Dynamic All-Asset	Tactical Global Macro	Unconstrained Global Stocks/Fixed Income	Mitigate risk through preservation of capital, generate alpha through unconstrained dynamic allocations through relative strength analysis.
Dynamic Yield Plus	Tactical Global Macro	Unconstrained Global Fixed Income	Mitigate risk through preservation of capital, generate alpha through unconstrained dynamic allocations through relative strength analysis.
Athena Pure Valuation	Focused Stock Picking	US Value Stocks	Athena uses behavioral measures of management, creditor, and analyst confidence to select out-of-favor stocks at attractive valuations.
Athena Global Tactical	Global Tactical	Global Equity US Treasuries	Systematically deliver a tactical tilt to your overall portfolio. Market rotation is driven by our patented research measuring deep macro-level crowd behaviors. May be opportunistic or defensive.
Athena Macro Micro	Multi Strategy	Global Equity US Value Stocks US Treasuries	A balanced allocation of macro and micro focused behavioral investing strategies.

Multi-Strategy Portfolios for Enhanced Outcomes: *enhance alpha & lower beta in a single account*



Aggressive



Moderately Aggressive



Moderate



Moderately Conservative



Conservative

The stated investment preferences are the opinions of Quartz Partners Investment Management ("Quartz") and do not reflect individual investors' risk and return objectives. Individual investors should consult with their financial professional about how to implement these opinions in a portfolio that is suitable for their goals and risk tolerance. This material is not intended to be relied upon as a forecast, research or investment advice, is not a recommendation, offer or a solicitation to buy or sell any securities or to adopt any investment strategy. The opinions expressed are derived from proprietary and non-proprietary sources deemed by Quartz to be reliable, not necessarily all-inclusive and are not guaranteed as to accuracy. The opinions expressed are as of the date of this document, and may change as subsequent conditions vary. Reliance upon information in this material is at the sole discretion of the reader. Investors should carefully consider the underlying funds' fees, expenses, objectives and risks carefully before investing. Quartz puts forth its best effort to achieve the objectives of its strategies. However, there is no guarantee that the objectives will be achieved. An Account's return and principal will fluctuate so that the Account, when redeemed, may be worth more or less than the amount in the Account at or subsequent to the effective date of the Investment Management Agreement. Actual fees paid and investment performance may vary based on factors including account size, custodian, contributions and withdrawals, which may cause your returns to differ from those listed in this report. In particular, accounts held at variable annuities and/or fund families will have performance that frequently deviates from the listed data due to fees and investment options. Please contact Quartz or your custodian for your specific performance information. Quartz strategies may involve above-average portfolio turnover, which could negatively impact the net after-tax gain experienced by an individual client. Performance results do not reflect the impact of taxes. Investments in the strategies are subject to investment and manager risk, which carry the potential for a loss of principal. Tactical management strategies do not protect against losses in declining markets and there is no guarantee that the strategy performance will meet or exceed the listed benchmark. Quartz's risk management process includes an effort to monitor and management risk, but should not be confused with and does not imply low risk. High yield bonds may be subject to greater market fluctuations, risk of default or loss of income and principal than higher rated securities. Quartz is an investment adviser registered with the SEC under the Investment Advisers Act of 1940. SEC registration does not constitute an endorsement of the firm by the SEC nor does it indicate that the advisor has attained a particular level of skill or ability. Quartz's Form ADV Part 2: Firm Brochure and other account documentation are available at quartzpartners.com/disclosures or upon request. Quartz may pay a portion of the annual advisory fee to a solicitor who is responsible for introducing an investor to Quartz. Quartz claims compliance with the Global Investment Performance Standards (GIPS®). A complete list and description of the firm's composites and composite reports that adhere to the GIPS® standards are available by emailing info@quartzpartners.com. GIPS® is a registered trademark of CFA Institute. CFA Institute does not endorse or promote this organization, nor does it warrant the accuracy or quality of the content contained herein. **NOT FDIC INSURED | MAY LOSE VALUE | NOT BANK GUARANTEED**

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