S&P 500 Earnings Leading Indicator

12-Month Forecast of U.S. Corporate Earnings Growth

Key Topics Covered

Quant Pack Overview

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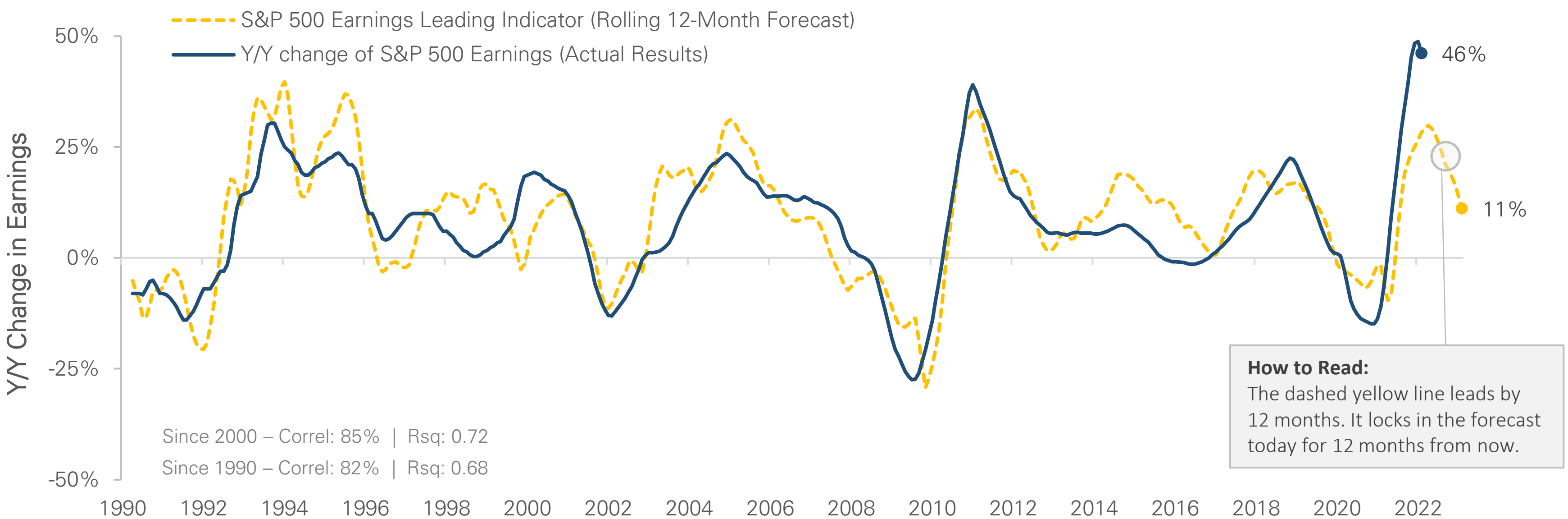
Indicator Overview

- The *S&P 500 Earnings Leading Indicator* forecasts U.S. corporate earnings 12 months ahead
- Based on a composite of 15 macro inputs (interest rates, housing activity, business confidence, manufacturing activity, commodity prices, etc.) that exhibit a high statistical correlation with the year-over-year change in S&P 500 earnings growth.
- The leading indicator (1) provides an early signal for the direction of earnings growth over the next 12 months, and (2) spots key 'turning points'. The indicator is not designed to predict with precision, but that is typically not necessary for successful asset allocation. Instead, investors should focus on the direction and magnitude of the 12-month forecast.



Data as of 3/31/2022. Visit www.QuantPack.com/plans to see the indicator's latest forecast.

What are S&P 500 Earnings?

- S&P 500 earnings refer to the collective earnings of the 500 companies that comprise the S&P 500 index of large cap stocks
- S&P 500 earnings are an important indicator of the health and performance of the U.S. economy and stock market. Higher earnings growth generally translates to higher stock prices, while lower earnings growth can lead to lower stock prices.
- The year-over-year growth in S&P 500 earnings is closely watched by investors, analysts, and policymakers as a key indicator of economic growth and corporate profitability.

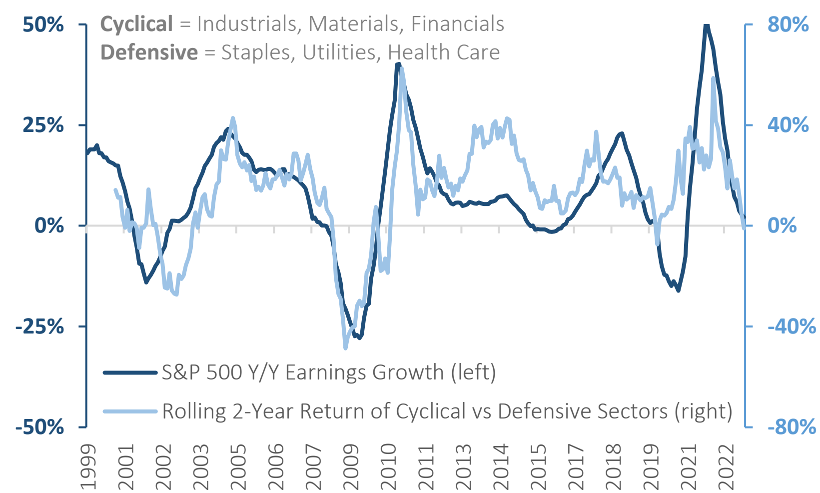
Market Impacts

Figure 1 – S&P 500 Performance

- The chart graphs the rolling 2-year change in the S&P 500 Index against the 1-year change in earnings growth.
- The year-over-year growth in S&P 500 earnings is an important indicator of corporate profitability, which can influence the performance of individual stocks and the overall stock market. Higher earnings growth generally translates to higher stock prices, while lower earnings growth can lead to lower stock prices.

Figure 2 – Sector Rotation (Cyclical vs Defensive)

- The chart graphs the rolling 2-year relative performance of cyclical sectors vs defensive sectors against the 1-year change in earnings growth.
- When the S&P 500's earnings growth increases, cyclical sectors outperform defensive sectors. When the S&P 500's earnings growth decreases, defensive sectors outperform cyclical sectors.

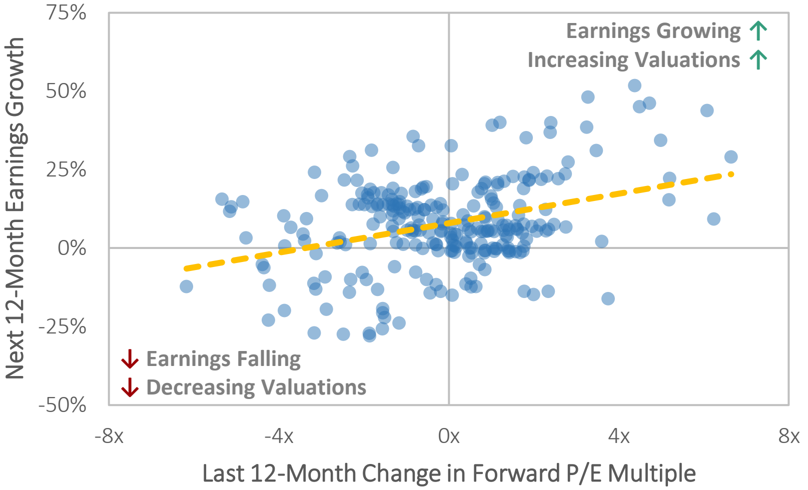


Data as of 4/30/2023

Market Impacts (continued)

Figure 3 – Stock Market Valuations

- The chart graphs S&P 500 earnings growth against the change in forward stock valuations. Each dot corresponds to a monthly data point since 2000.
- The yellow trendline shows, as the potential for earnings growth increases, stock market valuations also increase. As the potential for earnings growth decreases, stock market valuations also decrease as investors assign a lower valuation on future earnings.

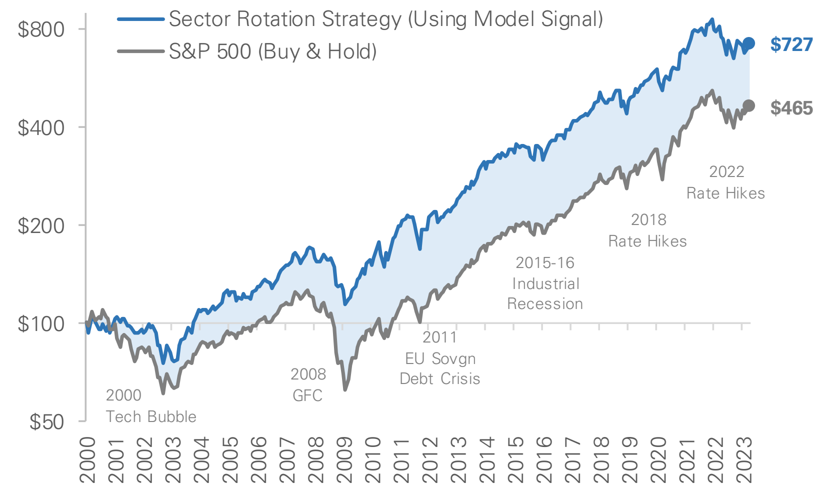


Data as of 4/30/2023

Model Signal #1 – Sector Rotation Strategy

- **Model Signal** – When *S&P 500 Earnings Leading Indicator's* forecast is below zero (page 3), own Defensive Sector ETFs (XLU, XLV, XLP). When it is above zero, own Cyclical Sector ETFs (XLB, XLI, XLY). The portfolio is rebalanced monthly.
- Compared to a buy and hold S&P 500 strategy, the model signal produces a higher average annual return, higher percentage of positive returns, higher up capture ratio, lower down capture ratio, and higher max risk / reward ratio.

Total Returns – U.S. Sector Rotation Model



Source: MarketDesk Quant Pack. Defensive Sector ETFs: XLU, XLV, XLP. Cyclical Sector ETFs: XLB, XLI, XLY. The portfolio is rebalanced monthly to equal weight.

Performance Statistics – U.S. Sector Rotation Model

Annual Statistics of Returns & Risks	S&P 500 (Benchmark)	U.S. Sector Rotation Model
Average Return	8.2%	10.3%
Strategy CAGR	**6.8%**	**8.9%**
Max Drawdown	-51%	-34%
% of Positive Years	**74%**	**65%**
Up Capture	100%	107%
Down Capture	100%	69%
Net Capture	**-**	**+38%**
Max Positive Year	32%	36%
Max Negative Year	-37%	-22%
Max Risk / Reward	**0.88**	**1.64**

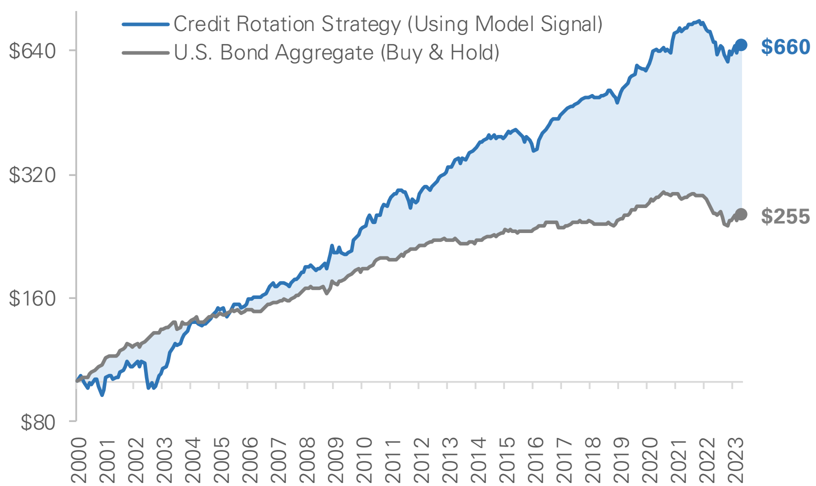
Source: MarketDesk Quant Pack. Based on annual calendar year returns.

Data as of 4/30/2023. Past performance does not guarantee future results. The performance information shown herein does not reflect the deduction of advisory and/or other fees normally incurred in the management of a portfolio. Hypothetical performance results are presented for illustrative purposes only.

Model Signal #2 – Credit Rotation Strategy

- **Model Signal** – When *S&P 500 Earnings Leading Indicator's* forecast is below zero (see page 3), own High-Quality Credit Sectors (MBS and U.S. Treasuries). When the forecast is above zero, own Low-Quality Credit Sectors (High Yield, Fallen Angels, and Convertible Bonds). The portfolio is rebalanced monthly to equal weight.
- Compared to a buy and hold Bond Aggregate strategy, the model signal produces a higher average annual return, higher percentage of positive returns, higher up capture ratio, lower down capture ratio, and higher max risk / reward ratio.

Total Returns – Credit Sector Rotation Model



Source: MarketDesk Quant Pack. High-Quality Credit Sectors: 10Y U.S. Treasuries and Mortgage Backed Securities (MBS). Low-Quality Credit Sectors: High Yield, Fallen Angels, and Convertibles. The portfolio is rebalanced monthly to equal weight.

Performance Statistics – Credit Sector Rotation Model

Annual Statistics of Returns & Risks	Bond Aggregate (Benchmark)	Credit Sector Rotation Model
Average Return	4.1%	8.8%
Strategy CAGR	**4.1%**	**8.5%**
Max Drawdown	-17%	-21%
% of Positive Years	**87%**	**78%**
Up Capture	100%	179%
Down Capture	100%	-22%
Net Capture	**-**	**+201%**
Max Positive Year	12%	30%
Max Negative Year	-13%	-17%
Max Risk / Reward	**0.92**	**1.81**

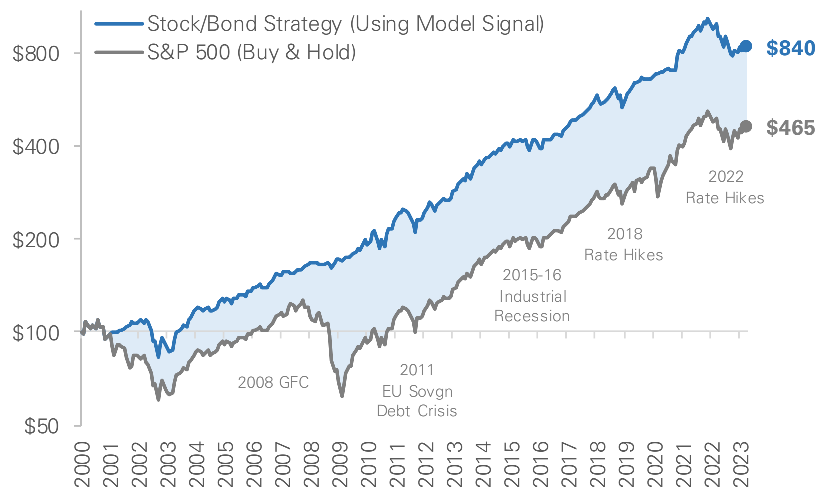
Source: MarketDesk Quant Pack. Based on annual calendar year returns.

Data as of 4/30/2023. Past performance does not guarantee future results. The performance information shown herein does not reflect the deduction of advisory and/or other fees normally incurred in the management of a portfolio. Hypothetical performance results are presented for illustrative purposes only.

Model Signal #3 – Stock / Bond Rotation Strategy

- **Model Signal** – When *S&P 500 Earnings Leading Indicator's* forecast is above zero (see page 3), own 100% Stock Exposure (SPY ETF). When it is below zero, own 100% Bond Exposure (AGG ETF). The portfolio is rebalanced monthly.
- Compared to a buy and hold S&P 500 strategy, the model signal produces a higher average annual return, higher percentage of positive returns, higher up capture ratio, lower down capture ratio, and higher max risk / reward ratio.

Total Returns – Stock/Bond Rotation Model



Source: MarketDesk Quant Pack. Stock exposure: S&P 500 (SPY ETF). Bond exposure: U.S. Bloomberg Bond Aggregate (AGG ETF). The portfolio is rebalanced monthly.

Performance Statistics – Stock/Bond Rotation Model

Annual Statistics of Returns & Risks	S&P 500 (Benchmark)	Stock / Bond Rotation Model
Average Return	8.2%	10.4%
Strategy CAGR	**6.8%**	**9.6%**
Max Drawdown	-51%	-25%
% of Positive Years	**74%**	**83%**
Up Capture	100%	94%
Down Capture	100%	30%
Net Capture	**-**	**+64%**
Max Positive Year	32%	32%
Max Negative Year	-37%	-22%
Max Risk / Reward	**0.88**	**1.44**

Source: MarketDesk Quant Pack. Based on annual calendar year returns.

Data as of 4/30/2023. Past performance does not guarantee future results. The performance information shown herein does not reflect the deduction of advisory and/or other fees normally incurred in the management of a portfolio. Hypothetical performance results are presented for illustrative purposes only.

Key Takeaways

- S&P 500 Earnings Growth provides insight into the overall health of the economy

- Key Market Impacts:
  1. Stock market performance tends to follow earnings growth (i.e., Earnings ↓ = S&P 500 ↓)
  2. Forecasted earnings growth informs positioning across sectors and asset classes
  3. Stock market valuations tend to follow earnings growth (i.e., Earnings ↑ = Stock Valuations ↑)

- Model Signals Average Annual Returns:
  1. Sector Rotation Strategy +10.3% (vs S&P 500 8.2%)
  2. Credit Rotation Strategy +8.8% (vs Bond Aggregate +4.1%)
  3. Stock/Bond Rotation Strategy +10.4% (vs S&P 500 8.2%)

- The *S&P 500 Earnings Growth Indicator* provides a 12-month forecast of earnings growth, allowing you to proactively manage risk and optimize portfolio positioning. The *Quant Pack* is a data subscription with access to 20+ proprietary leading indicators built to guide asset allocation decisions, eliminate guesswork, enhance investment returns, and decrease your research workload.

[BONUS] Free Copy of the U.S. Macro Regime Indicator

MarketDesk U.S. Macro Regime Indicator (USMRI)

A Framework for Managing Portfolios Throughout Economic Cycles

Primer Report

What is a "Macro Regime"?

Macro regime refers to the prevailing set of macroeconomic trends within a particular time frame. It represents the broader market environment, which is characterized by factors such as economic growth, inflation, interest rates, fiscal and monetary policy, and global trade. Macro regimes hold significance for investment committees, as they influence how various asset classes perform and provide a roadmap to guide asset allocation decisions.

Understanding Macro Regimes is Key to Portfolio Management

Macro regimes are classified as either "Risk-On" (i.e., increase portfolio beta) and "Risk-Off" (i.e., decrease portfolio beta). The two regime styles impact markets in different ways, including which asset classes outperform, the degree of market volatility, and the risk of a major market sell-off. The MarketDesk U.S. Macro Regime Indicator (USMRI) allows investors to manage the portfolio beta exposure of their equity (i.e., large vs small, cyclical vs defensive) and credit (i.e., investment grade vs high yield corporate bonds) allocations in response to changes in the macro regime. Aligning portfolios with the correct macro regime improves risk-adjusted returns and decreases portfolio drawdown risk, while mismanaging betas produces lower risk-adjusted returns and is the equivalent of swimming against the current. This primer explains the USMRI, discusses how the two regime styles impact financial markets, and provides a portfolio guide for each regime.

How is the USMRI Framework Different from my Current Process?

The reality is most investors incorporate data that is already known by the majority of market participants (i.e., therefore also largely priced into markets), which means its holds little to no explanatory power regarding future performance. Regardless of your investment style (i.e., Growth, Value, Momentum, or Technicals), the USMRI framework is built to be additive to your process as it solves for the above flaws. USMRI is fundamentally different in that only uses 6- to 12-month leading indicators, which have a proven track record since 1980 of accurately forecasting the trajectory of the U.S. economy. History doesn't repeat, but it often rhymes, and the USMRI's data-driven approach provides a robust, repeatable framework to manage portfolios throughout business cycles.

Table of Contents

Figure 1 – MarketDesk U.S. Macro Regime Indicator (USMRI)

Indicator Components (Equal-Weighted)	Reading	Status
Business & Consumer Demand	-1.28	Risk-Off
Manufacturing Activity	-0.87	Risk-Off
Corporate Earnings	-0.80	Risk-Off
Labor Market	-0.67	Risk-Off
Interest Rates	-0.82	Risk-Off

Source: MarketDesk Quant Pack. As of 4/9/2023.

Figure 2 – Historical U.S. Macro Regime Indicator (USMRI)

Historical USMRI Since 1980 and Next 12-Month Forecast

Source: MarketDesk Quant Pack. As of 4/9/2023. Refer to the next page for key dates.

Report Overview

This primer provides an overview of the macro regime indicator and how to implement it into your portfolio management process.

MarketDesk U.S. Macro Regime Indicator

The MarketDesk U.S. Macro Regime Indicator (USMRI) utilizes a data-driven process to (1) define the current macro environment and (2) forecast the trajectory of the U.S. economy over the next 12 months. It aggregates 20+ Quant Pack indicators to produce one straightforward signal to increase or decrease your portfolio risk.

Free Download *(No Email Required)*

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