

LUCCAI

Investment Analytics

Luccai Global Macro Matrix

May 2026

<https://luccai.com/>

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Highlights

- › **Global Macro Matrix** predicts 28 key variables for 28 countries with leads of 2-months and 6-months
 - Calculations are daily from Luccai's analysis of global data then are fixed at month end
 - Predictions have a monthly history for 24 years
 - Targets are key variables from within the Macrobond data set
- › **Central Bank Scores** for 28 central banks measure monetary policy effects on their economies with a monthly history for 20 years
- › **Valuations** covers measures for sovereign bond yields and exchange rates in 28 countries with a monthly history for 20 years
- › **Technicals** covers price patterns for sovereign bond yields and exchange rates for 28 countries with a monthly history for 20 years

Luccai predictive timeseries underpin global macro equity and hedge fund strategies, and are used for machine learning

Value Proposition

- › **Personalization at Scale:** Wealth managers can provide personalized, forward-looking portfolio insights for each client segment
 - Retail, High Net Worth Individuals, Family Offices
 - **Client Engagement Tool:** Luccai forecasts for inflation, central bank policy, currency valuations, etc. can be embedded into digital dashboards, giving end clients actionable insights and confidence.
- › **Revenue Upside:** Banks and wealth managers that re-distribute Luccai data to clients can differentiate advisory services and charge premium fees for “macro-driven” investment

Luccai’s predictive macro data gives Wealth Managers a broad set of value propositions for their clients

Technology Integration

- › **API & Data Feeds:** Luccai data is delivered through the cloud-based AWS Transfer Family.
 - › Supports SFTP, FTPS, and AS2 protocols for secure file transfers to and from Amazon S3 or EFS
 - › Integrates directly into bank. wealth manager. and SasS batch processing operations.
 - › Low-latency REST API, and streaming can be provided
- › **Modular Embedding:** Global Macro Matrix, Central Bank Scores, Valuations, and Technicals are modular data sets
 - › They integrate separately as required into client portfolios, dashboards, or agent-advisor algorithms
- › **AI & ML Explainability:** Luccai's machine learning models generate long data series covering multiple business cycles to augment
 - › and underpin training for agent-advisory algorithms

Luccai data feeds are cloud-based for batch Integration into client portfolios, dashboards and ML training for agent-advisors

Data Differentiation

- › **Global + Granular:** Luccai provides breadth across 28 countries, 28 key variables, with daily refresh and 24-year history) as a unique dataset for financial institutions.
- › **Actionability:** Luccai models translate directly into scores and weights for portfolio tilts
- › These data sets are designed as a framework for bond allocations, currency hedging, and equity sector rotation
- › **Scenario Testing:** Luccai's long data histories make them a macro-economic scenario engine for stress testing
Banks and wealth managers can run what-if analysis for clients and for their machine learning programs

Luccai data sets are broad and valuable for financial institutions predicting macroeconomic effects on markets

Additiv-Specific Use Cases

- › **Retirement dashboards:** Luccai Inflation forecasts can be additional inputs to calculated pension adequacy
 - › **Cross-border wealth:** FX fair value projections can guide hedging or asset allocations
- Risk profiles:** Central bank transmission scores to help determine how quickly to deploy funds in model portfolios
- Advisory & Hybrid Models:** Talking points for private bankers and relationship managers using additive
Luccai provides macro insights and well-founded justifications for tactical portfolio changes.
- Embedded Finance:** For insurance or banking distribution partners, Luccai insights can become educational content
Online apps such as Luccai's build trust, interest, and daily engagement.

Additiv's Digital Wealth Journeys can integrate Luccai's enhanced data sets

Luccai Solutions for Institutional Investors

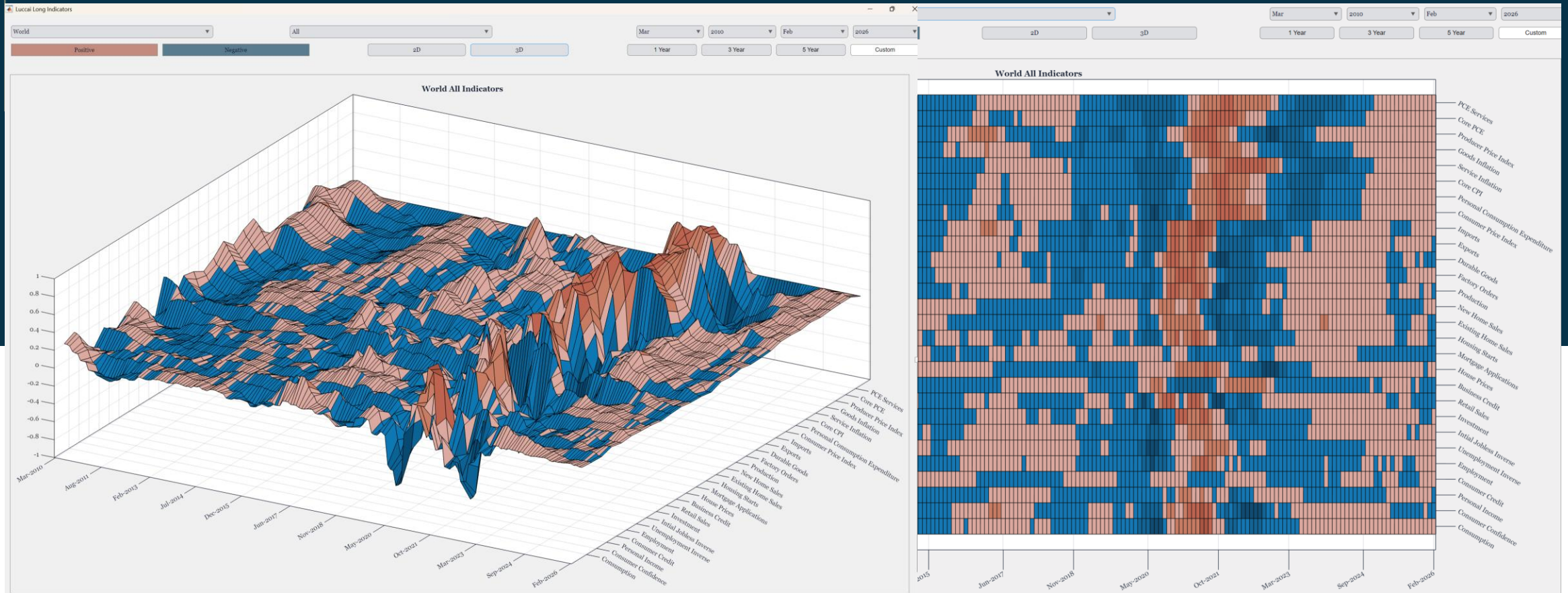
- › **Value:** Increased client trust, and differentiated advisory, monetizable premium features.
- › **Technology Interface:** API plug-and-play integration, modular widgets, ML-explainability, low-latency updates
- › **Data:** Unmatched predictive macro dataset, daily updates, long history, actionable signals.
- › **Challenges for Institutional investors:** Uncertain macroeconomic outlooks for (inflation, policy, FX volatility
 - › ALM pressures – matching liabilities with assets in a shifting rate environment
 - › Need for transparency in allocation and risk models
 - › Regulatory demands for stress testing and scenario analysis
 - › Traditional backward-looking models are no longer sufficient

Today's solution is Luccai Predictive Analytics via additiv's WealthTech Platform

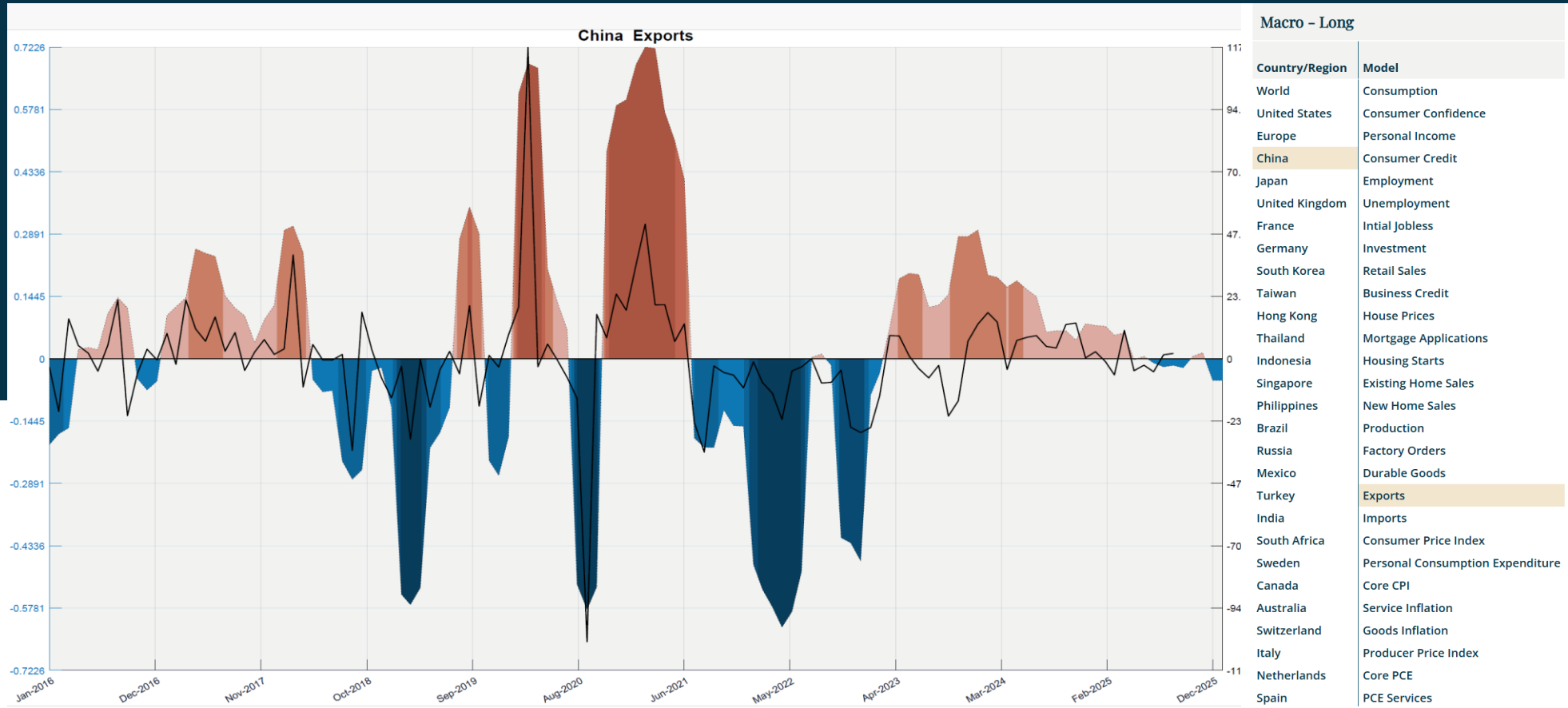
Luccai Global Macro Matrix

- › **Key Economics: Models concentrate on macroeconomic variables with significant impacts on financial markets.** Luccai's global matrix gives predictive timeseries for the same set of 28 key variables across each of the 28 countries. This allows for groupings of high impact predictions within or between regions
- › **Macro-Long: 6-month models use wide sets of global economic and financial timeseries with daily, weekly, monthly, and quarterly reporting.** Predictions run up to 6 months ahead of their targets, evolve daily with new data, and at the end of each month are fixed for the following month.
- › **Macro-Short: 2-month models use narrower sets global economic and financial timeseries with daily or weekly reporting.** Predictions run up to 2 months ahead of their targets, evolve daily with new data, and at the end of each month are fixed for the following month.
- › **GDP Targets: Consumption & Personal Income, Investment & Housing, Production & Trade, Consumer & Producer Inflation variables are included.** Predictions for the principal underlying components of real GDP and prices are given for each country
- › **With a proven team, we deliver our models and projections online.** Luccai's systems give a transparent basis for spotlighting unseen market opportunities and risks, and for training investment signal algorithms

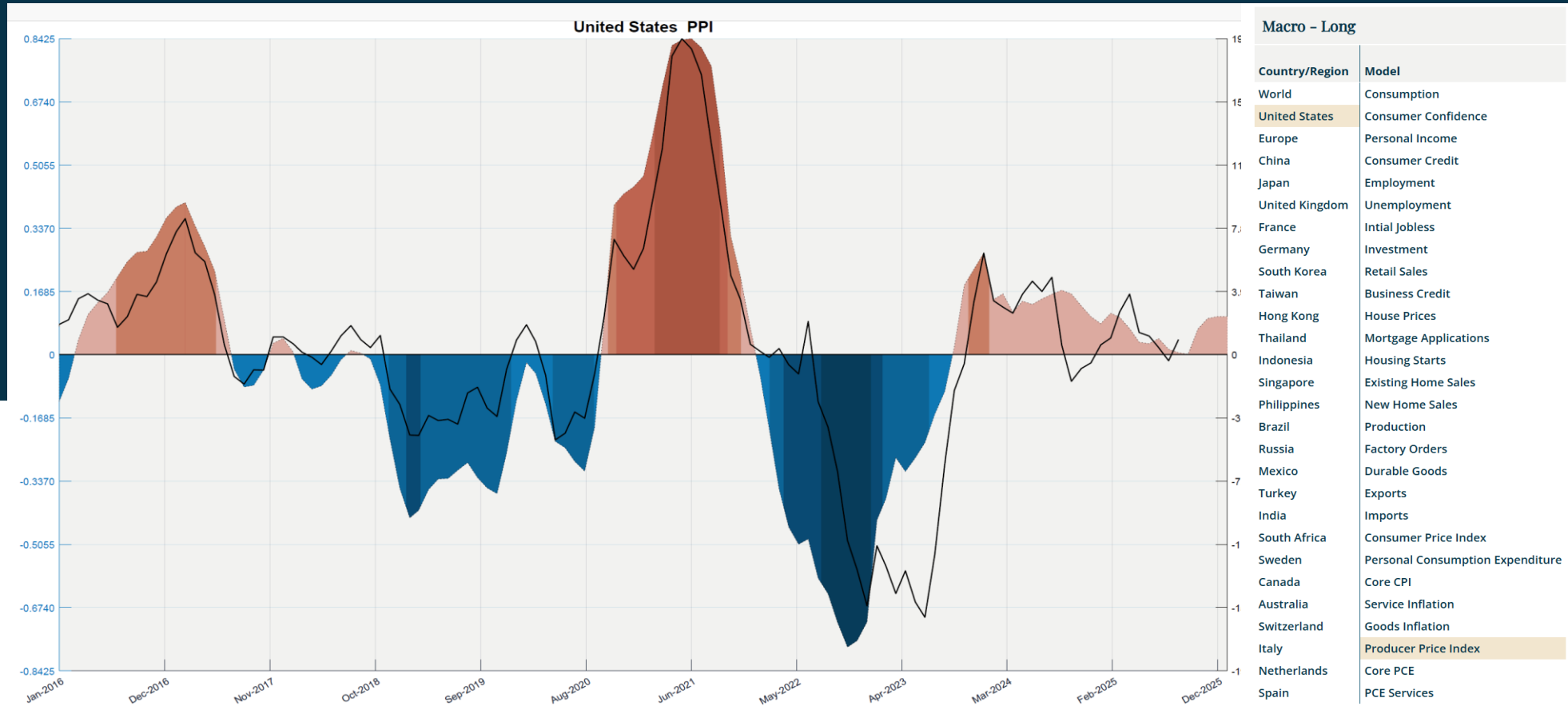
Luccai Macro Momentum Models World



Luccai Macro Momentum Models China



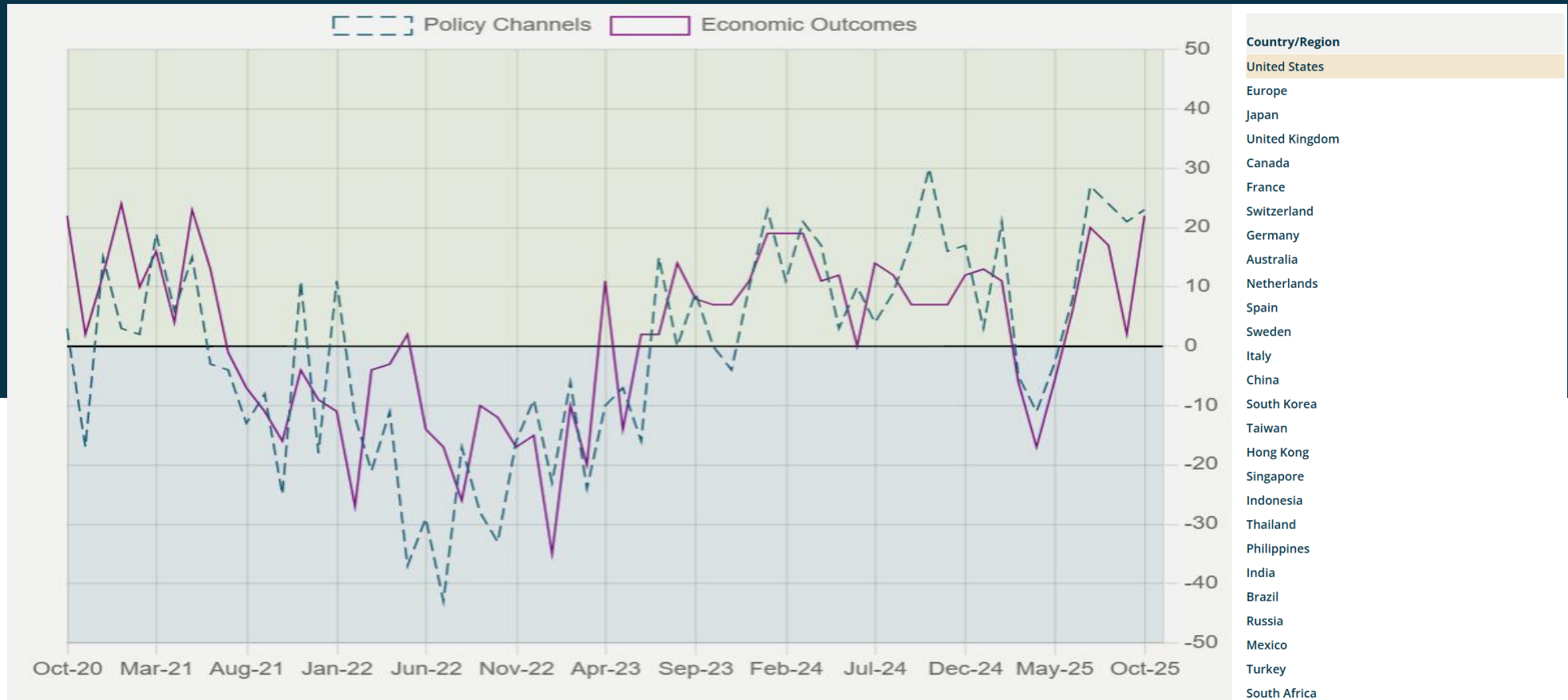
Luccai Macro Momentum Models USA



Luccai Central Bank Policy Scores vs Economic Outcomes

- › **Monetary Policy Scores: Central bank monetary scores for tight to loose policy in 28 countries.** Luccai tracks each country's short-term policy changes to give comparable scores for policy tightening and loosening from country to country. Chart showing our score for central bank monetary policy (right scale) compared to its effects on economic activity.
- › **Policy Transmission: Scores show whether the monetary transmission channels to economic growth are opening or closing.** A high monetary policy score indicates that initial monetary transmission channels are supporting economic growth, and a negative score shows monetary channels tightening against economic growth.
- › **Economic Outcomes: Luccai tracks short-term changes in the real economy to confirm how policy is affecting GDP.** Economic outcomes for each country are measures of changes in consumption, investment, housing, and production.
- › **Policy Extremes: Policy mapping shows monetary loosening at historical highs or tightening to historical lows as it unfolds.** Luccai's scores are based on transmission matrices and real economy measures that make them consistent from cycle to cycle.
- › **Broken Channels: Policy is loose but the economy contracts, or policy is tight but the economy still booms.** Breaks between our policy score and measured economic outcome show right away periods when the central bank is losing or has lost control of economic output and inflation.

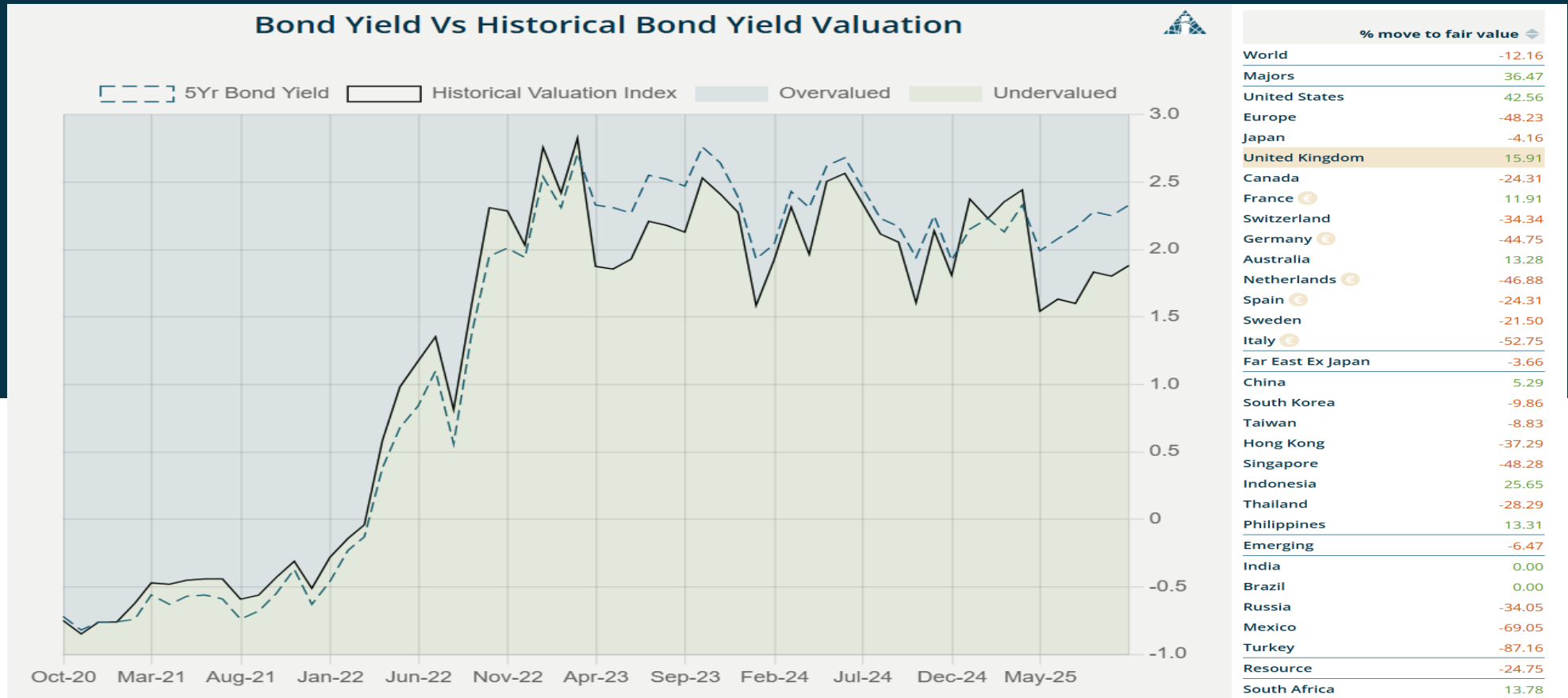
Luccai Policy Score vs Economic Outcomes Federal Reserve



Luccai Valuations for Bond Markets & Exchange Rates

- › **5-year Sovereign Bonds: Luccai measures underlying inflation and business cycle trends affecting yields in 28 countries.** Luccai tracks for each country its government bond term spread, real yields, inflation and activity accelerations, and currency pressures to give yield valuations.
- › **5-year Yield Fair Values: Percentage changes in sovereign bond yields to reach fair values are calculated daily and fixed at month end.** Calculations aggregate z-scores across bond market fundamentals, showing by how much yields would rise or fall to align with historical norms.
- › **USD Exchange Rates: Luccai compares US interest rate and economic fundamentals to those for 27 countries.** These valuation metrics include purchasing parity, relative interest rates, comparative economic cycles and trade effects.
- › **Currency/USD Fair Values: Percentage moves to currency fair values are calculated daily and fixed at month end.** Calculations aggregate z-scores across a currency's fundamentals, showing how much appreciation or depreciation would line it up with historical norms.

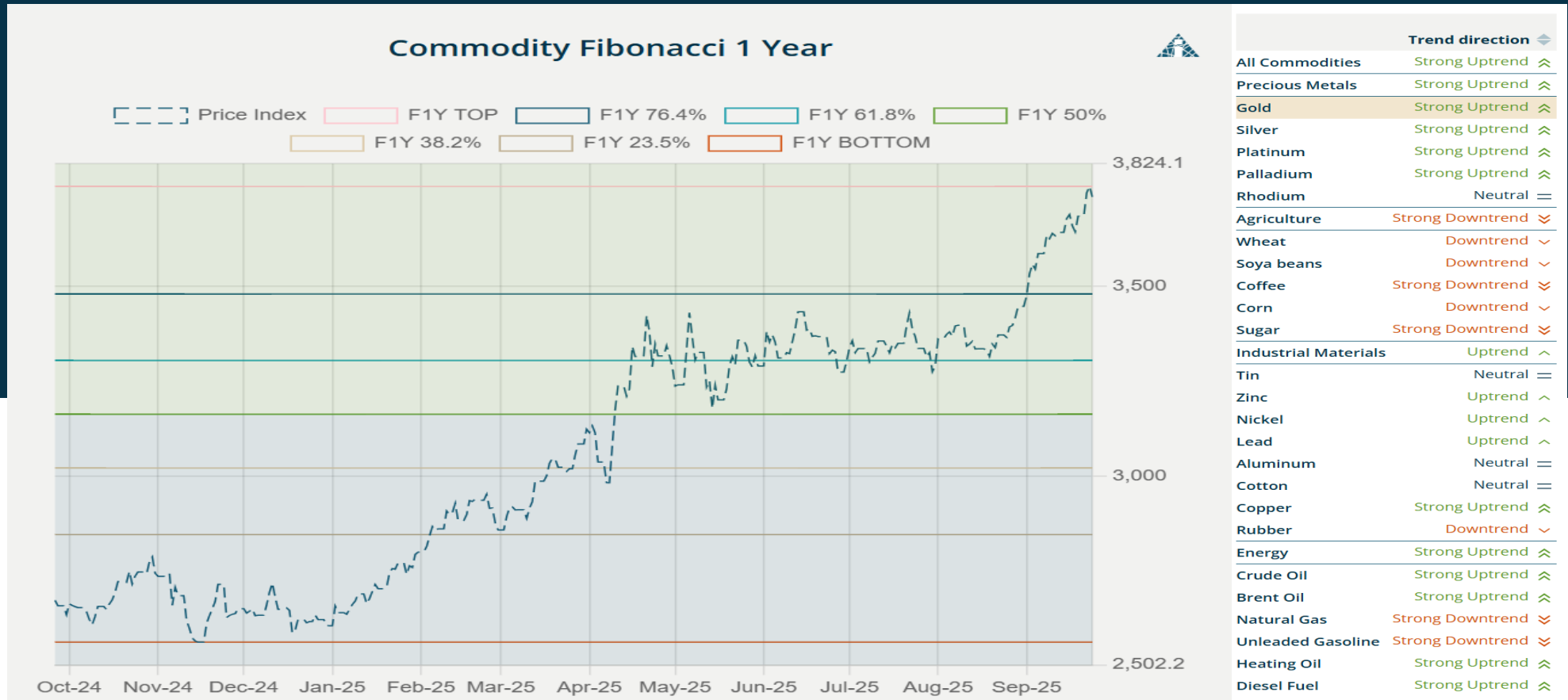
Luccai Sovereign Yield bp Move to Fair Value Germany



Luccai Technicals

- › **Technicals for Bond, Currency, Equity, USA Equity Sector & Commodity Markets monthly for 20 years.**
- › **Stand-alone price patterns : Technical measures for 28 bond, 28 currency, 28 equity, 11 USA equity sector, and 29 commodity markets, calculated daily and fixed at month end.** These include simple and exponential moving averages, moving average convergence divergence (MACD,) relative strength indices (RSI,) and Fibonacci retracements.
- › **Relative price patterns : Technical measures for price performances relative the world equity index for 28 bond, 28 currency, 28 equity, 11 USA equity sector, and 29 commodity markets, calculated daily and fixed at month end.** These are shown with simple and exponential moving averages.

Luccai Technicals Commodities Gold



Model Overview

Machine Learning, Timing, & Tilts

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1. Models: Overview



1. Models



2. Confirmation

Fundamental Macro and Financial Data

Some 450 million data series are considered



~7.5 million data series taken into our models



Series are tagged to allow them to be sorted for economic influence



Machine learning algorithms to assign models' features

Key Macro Predictions mapped to their GDP Components

Consumption & Income

- › Consumption
- › Consumer Confidence
- › Personal Income
- › Consumer Credit
- › Employment
- › Unemployment Inverse
- › Initial Jobless Inverse

Capital Spending & Housing

- › Investment
- › Retail Sales
- › Business Credit
- › House Prices
- › Mortgage Applications
- › Housing Starts
- › Existing Home Sales
- › New Home Sales

Production & Trade

- › Production
- › Factory Orders
- › Durable Goods
- › Exports
- › Imports

Consumer & Producer Prices

- › CPI
- › PCE
- › Core CPI
- › Service Inflation
- › Goods Inflation
- › PPI
- › Core PCE
- › PCE Services

GDP Components affect markets

Bond and Currency Valuations & Technicals

Equity, Sector, and Commodity Valuations & Technicals

2. Machine Learning, Timing, & Tilts



1. Models



2. Confirmation

Luccai models integrate machine learning to take account of fiscal & monetary policies, global influences, and the timing of economic cycle impacts on financial markets. Luccai does feature engineering for models incorporating macro momentum from global data, then uses those higher-level representations in meta-learner models.



Discretionary considerations

- › Policy responses can have market effects more rapidly than will be captured in underlying economic data
- › Negative predictions for economies with important financial markets can lead to global contagion
- › Timing effects will be different for asset classes across different regions



Tilts for central banks & global shocks

- › Luccai's website covers worldwide markets with daily calculations for central bank monetary policy changes and how they are impacting their real economies
- › Global Matrix short-term predictions use global economic and financial data reported overnight with very short leads on the GDP components they predict. They adapt very quickly to external shocks.

Application Splash Screens

The logo for LUCCAI features the word "LUCCAI" in a white, serif font. The letter "A" is replaced by a white triangle containing a complex, dark blue geometric pattern of intersecting lines, resembling a wireframe or a network diagram. The logo is centered on a dark blue background that has a white mountain-like silhouette at the top.

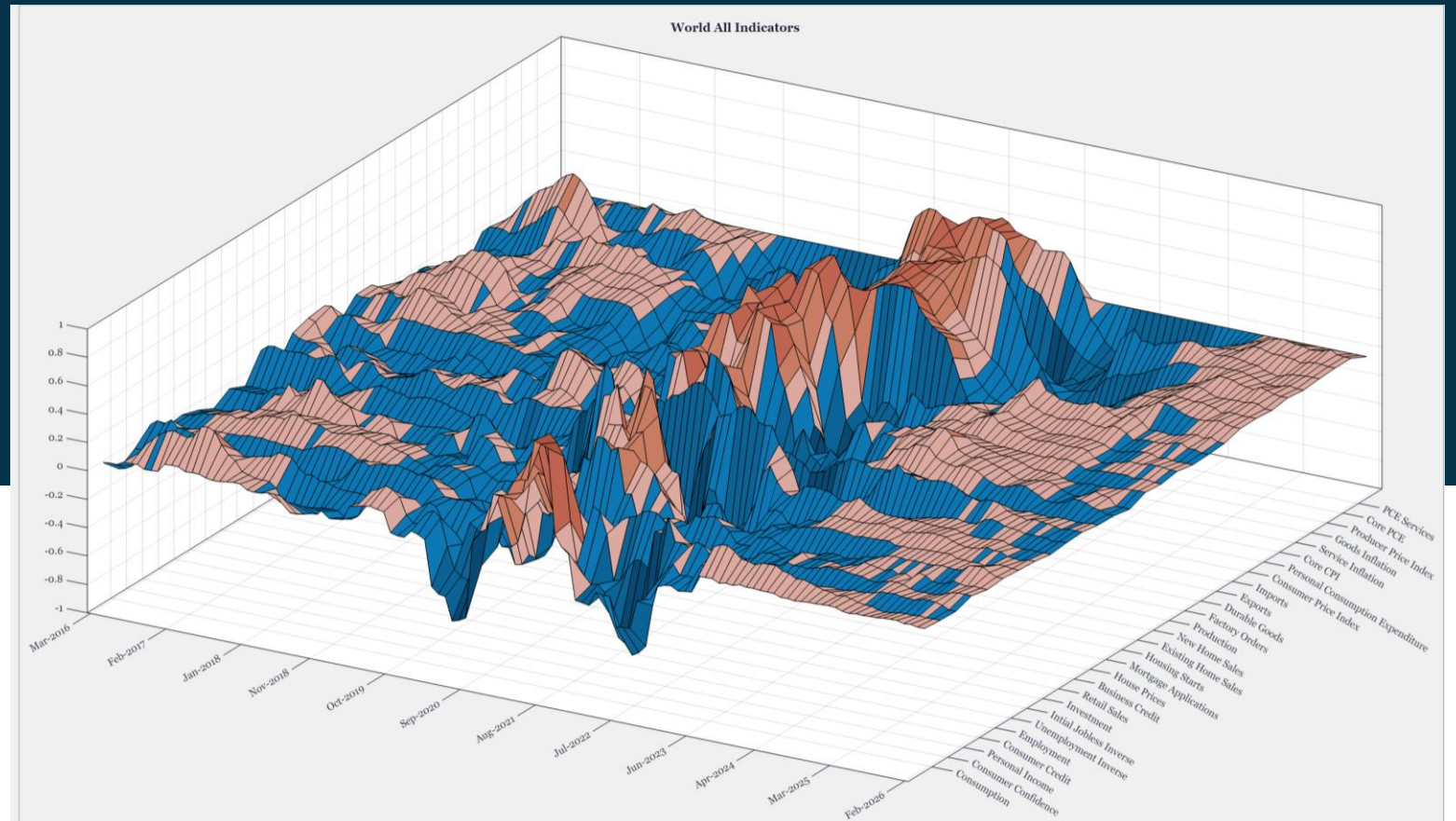
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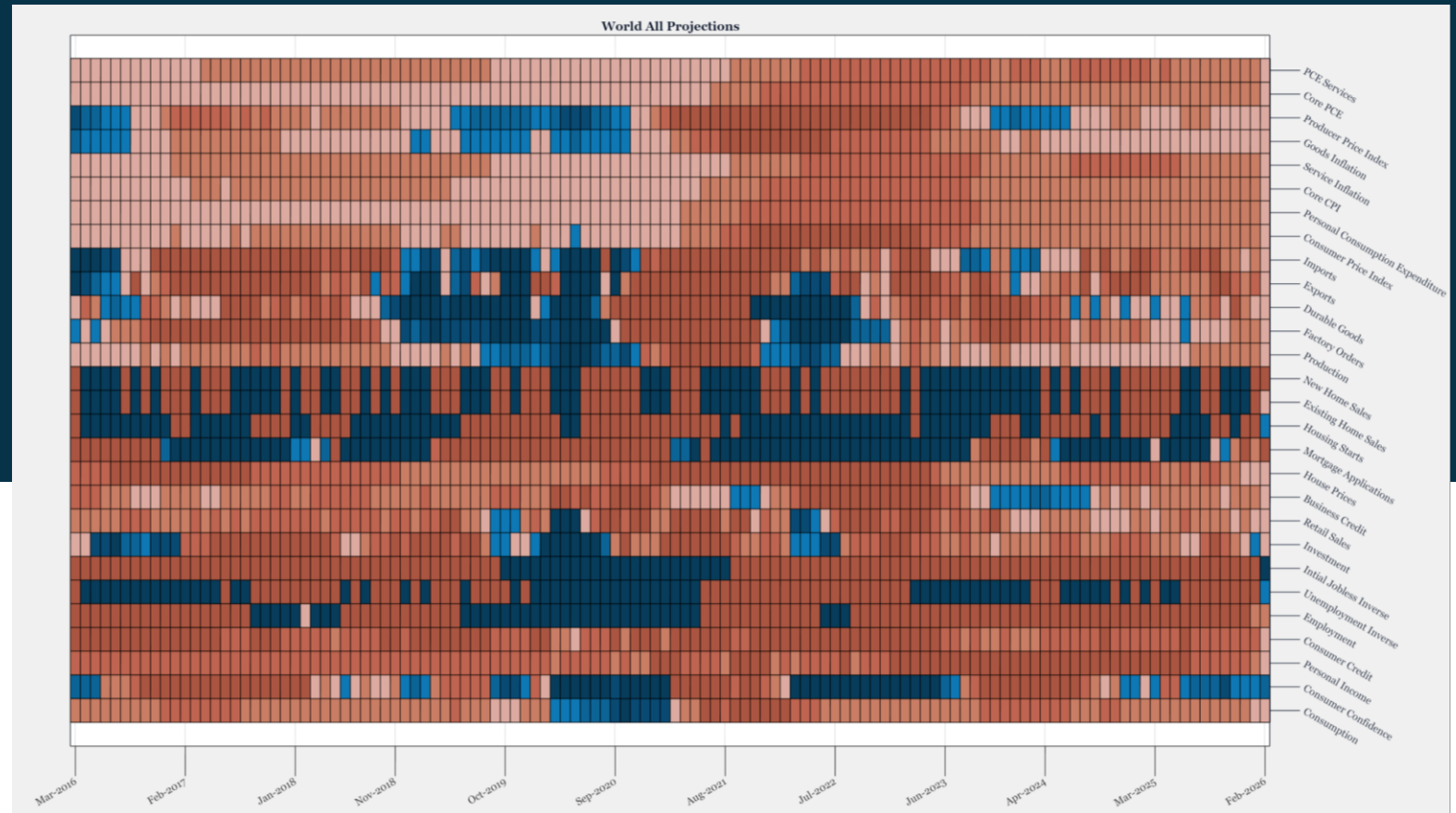
Luccai Macro Momentum Models Splash Screen

Luccai Acceleration Models
Long



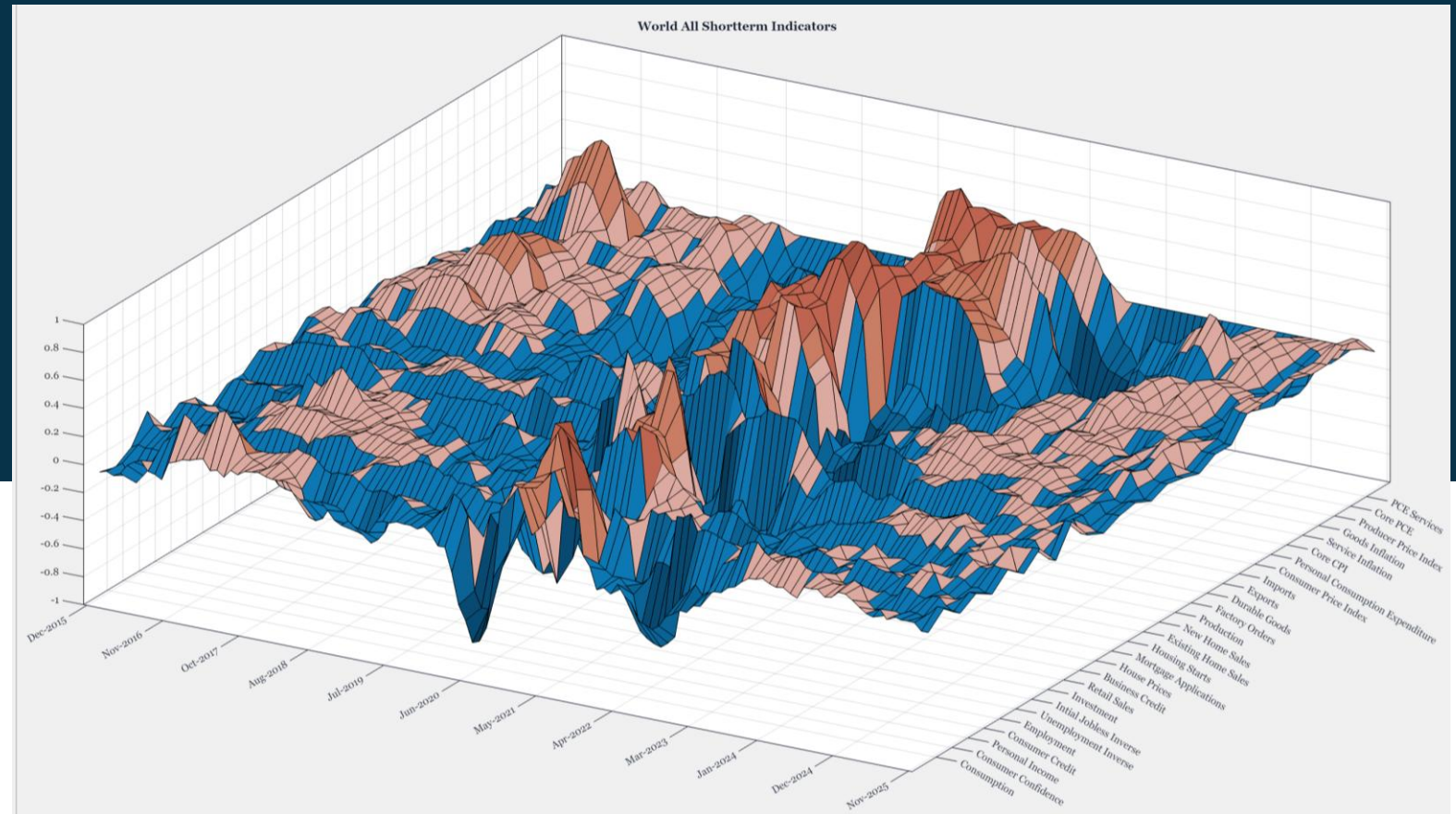
Luccai Macro Momentum Models Splash Screen

Luccai Annual Change Models
Long



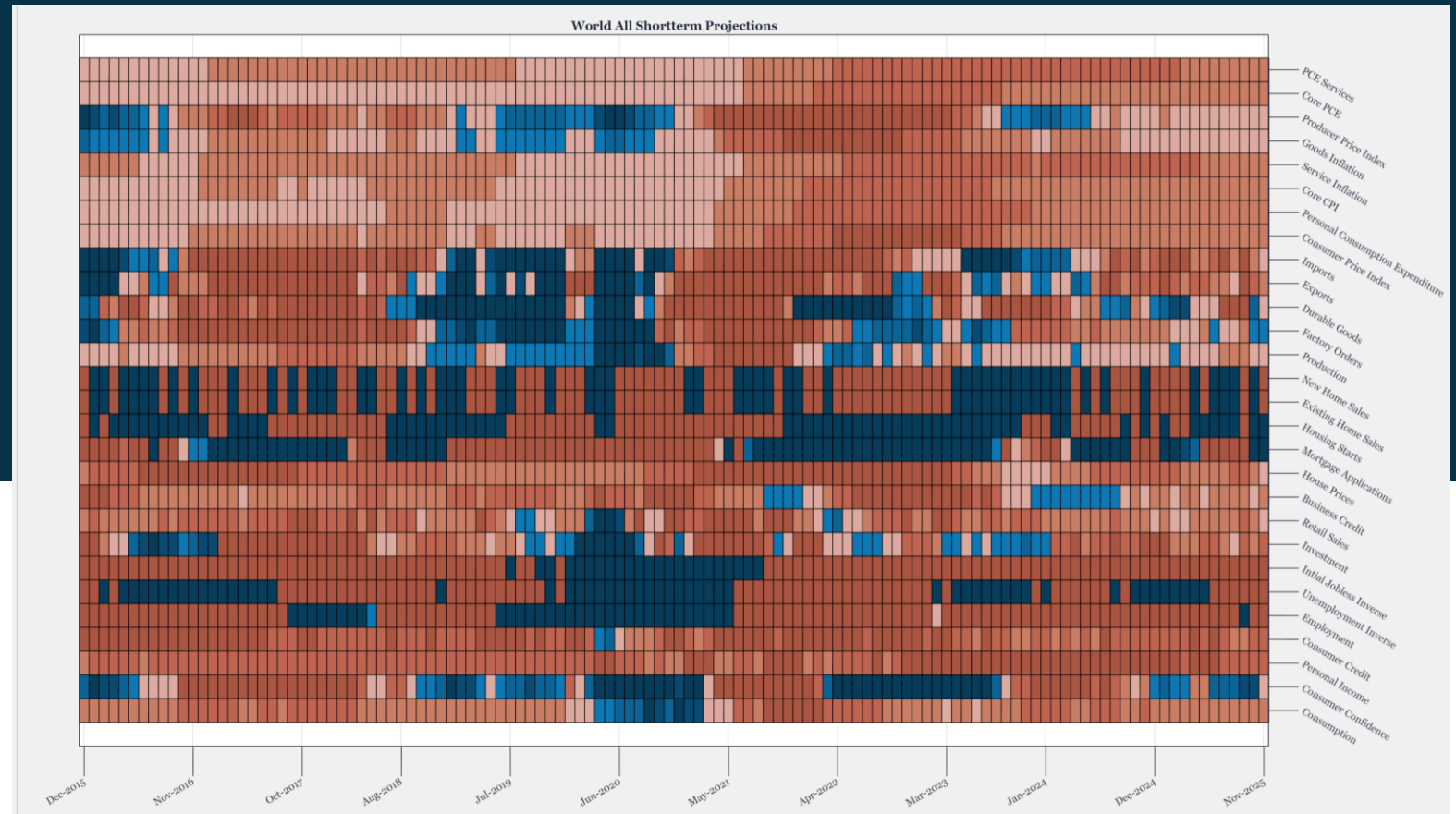
Luccai Macro Momentum Models Splash Screen

Luccai Acceleration Models
Short



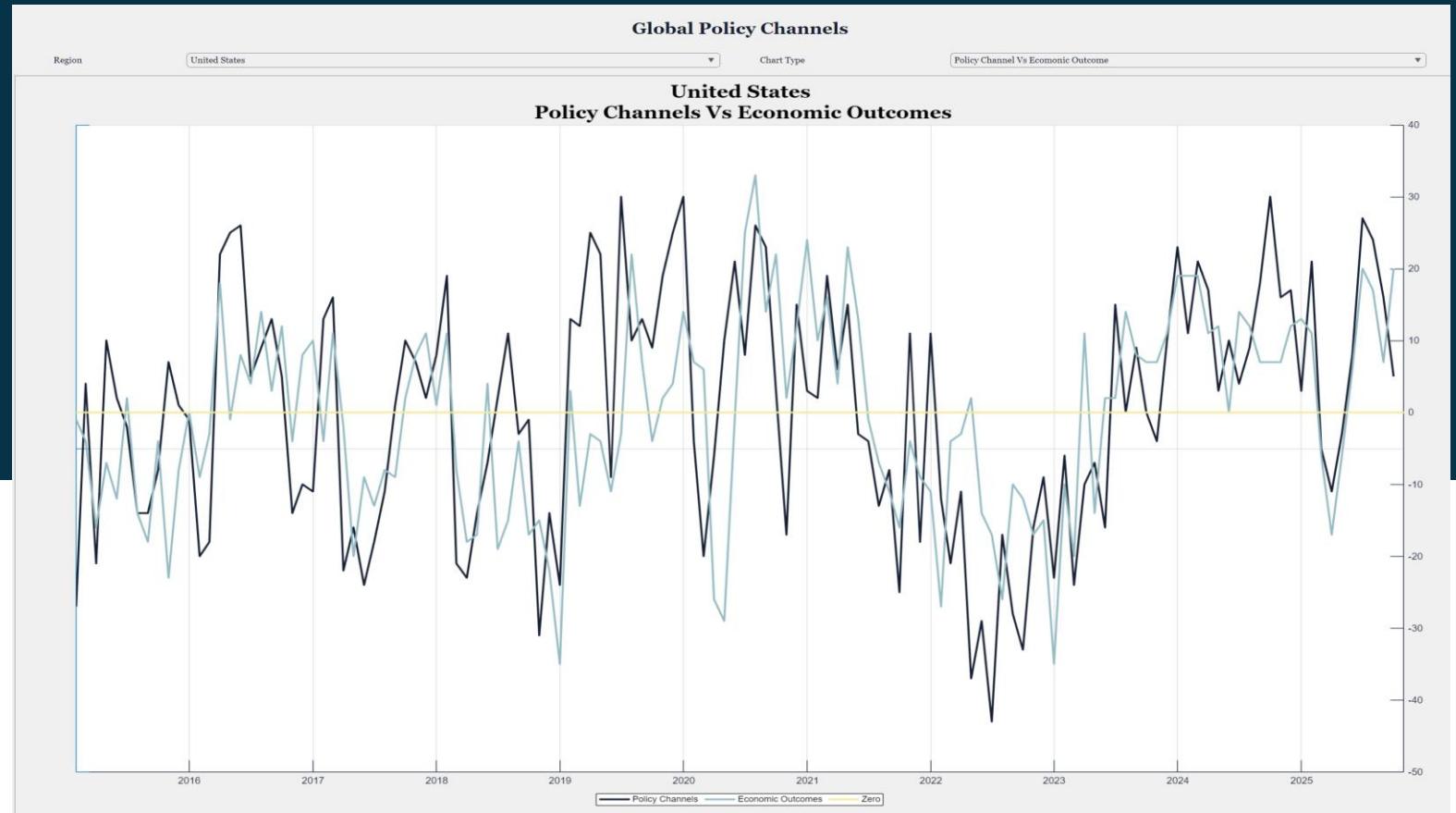
Luccai Macro Momentum Models Splash Screen

Luccai Annual Change Models
Short



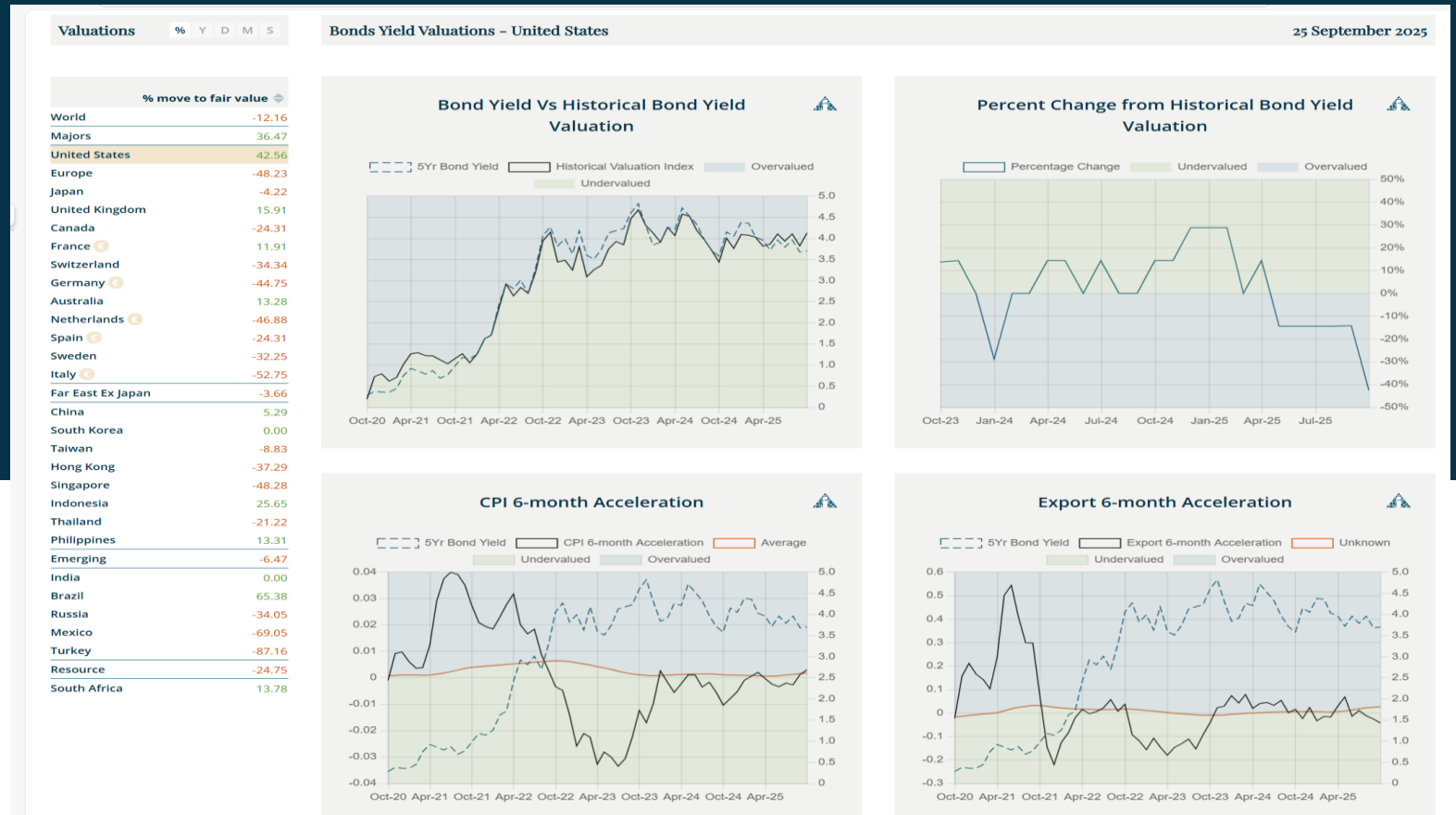
Luccai Central Bank Score Splash Screen

Luccai Monetary Policy Scores vs Economic Outcomes



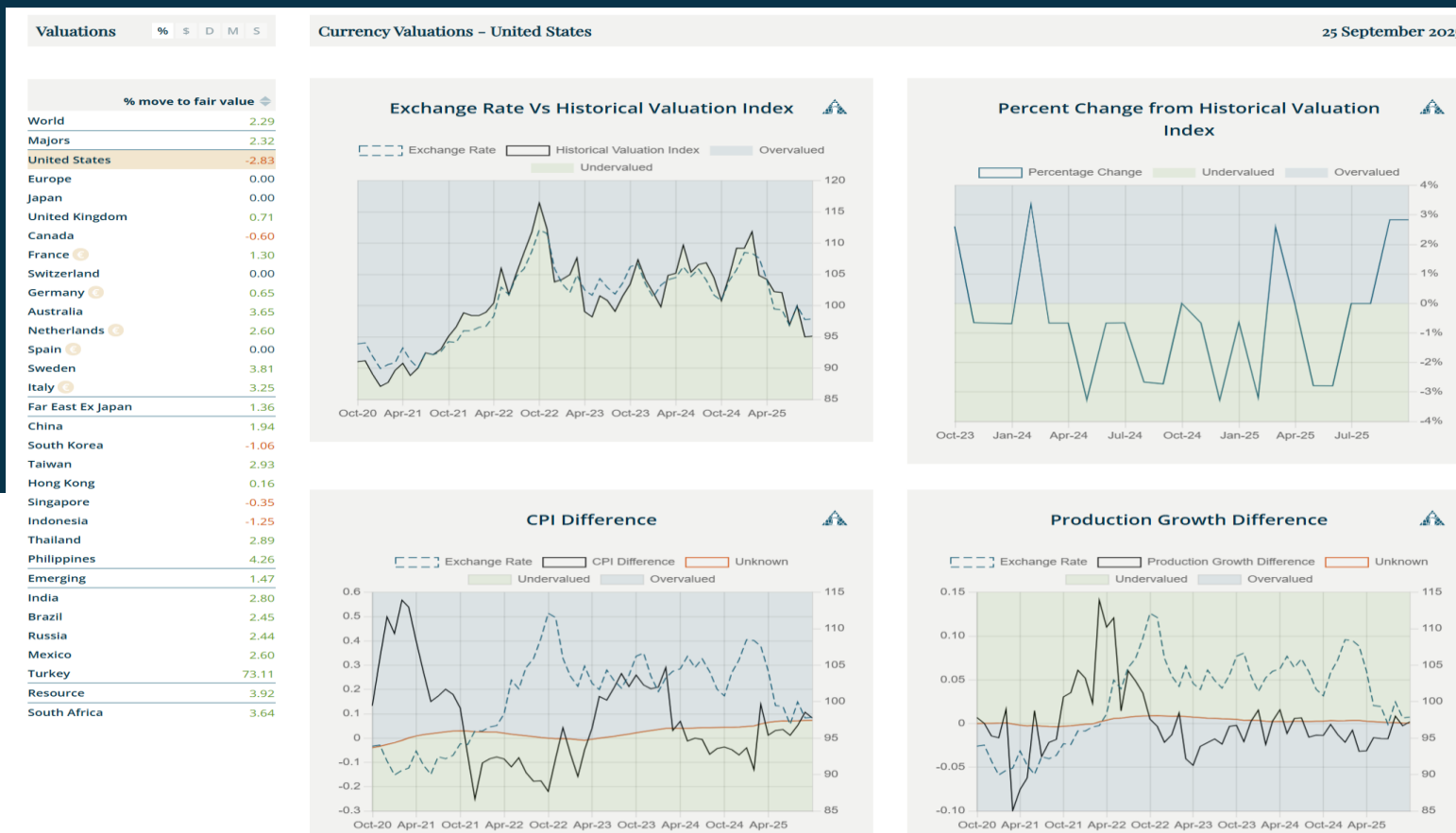
Luccai Bond Valuation Splash Screen

Luccai Sovereign Bond Yield Valuations



Luccai Currency/USD Valuation Splash Screen

Luccai Exchange Rate Valuations



Luccai Bond Markets Technicals Splash Screen

Luccai Sovereign Bond Yield Price Patterns

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BOND PRICE PATTERNS

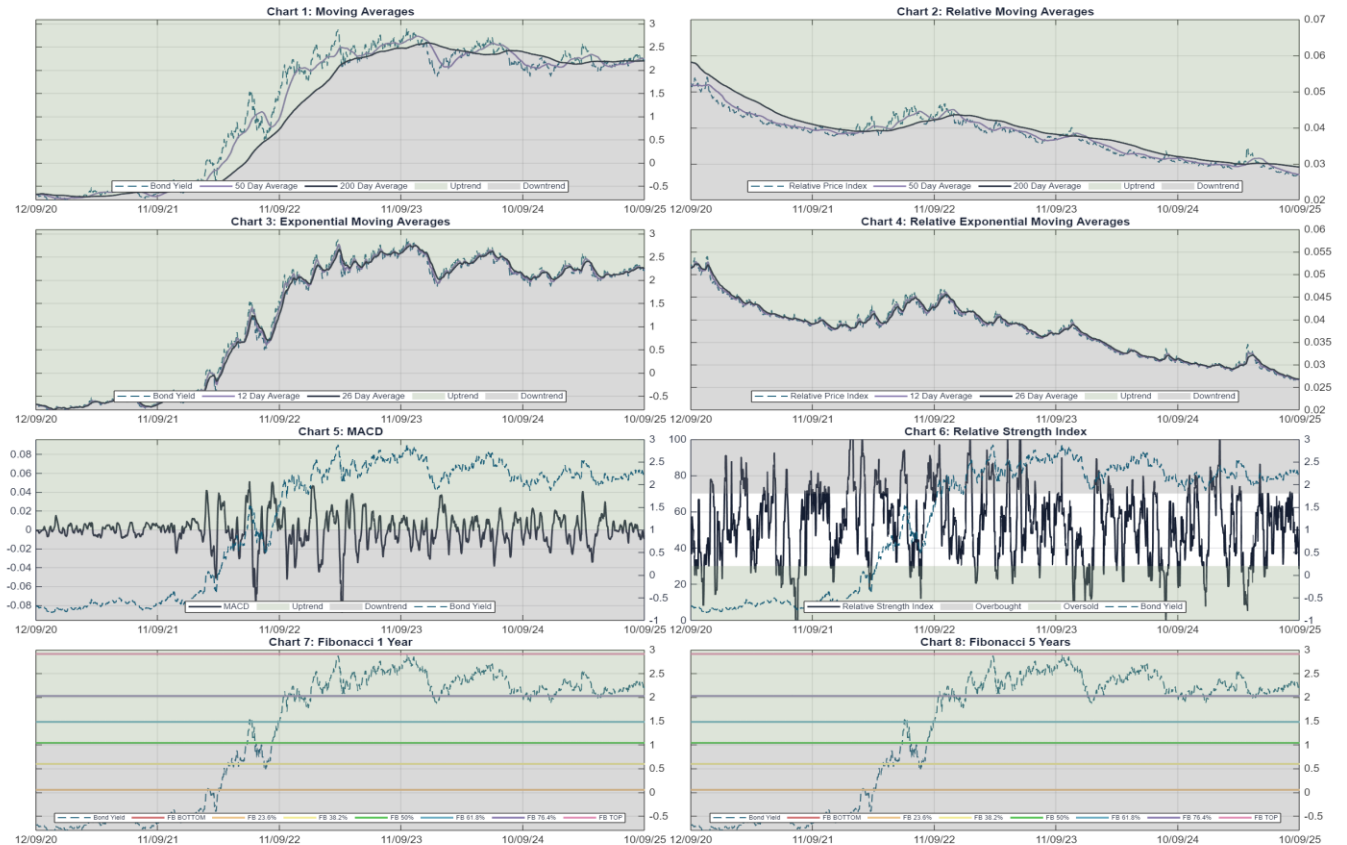
Germany

Region
Germany

Explanation:

Chart 1 Chart 2
Chart 3 Chart 4
Chart 5 Chart 6
Chart 7 Chart 8

Market moving averages:
Chart showing the 10-year bond yield (right scale) over the past year alongside its 50-day moving average and its 200-day moving average. The yield above its 200-day moving average indicates a long-term uptrend and below a downtrend.



Luccai Currency/USD Technicals Splash Screen

Luccai Exchange Rate Price Patterns

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CURRENCY PRICE PATTERNS

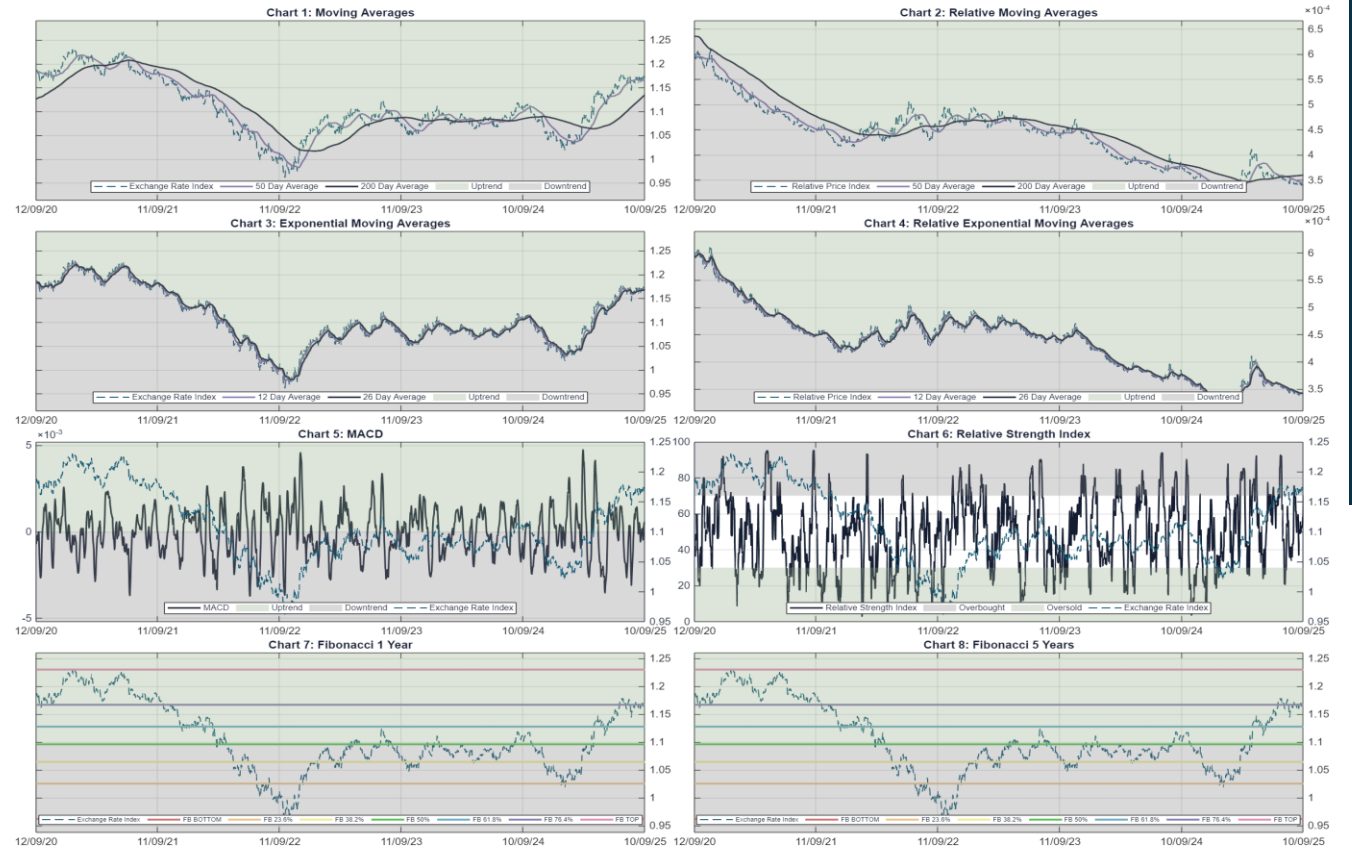
Europe

Region
Europe

Explanation:

Chart 1 Chart 2
Chart 3 Chart 4
Chart 5 Chart 6
Chart 7 Chart 8

Market moving averages:
Chart showing the exchange rate to USD (right scale) over the past year alongside its 50-day moving average and its 200-day moving average.
The exchange rate above its 200-day moving average indicates a long-term uptrend and below a downtrend.



Luccai Equity Markets Technicals Splash Screen

Luccai Equity Market Price Patterns

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EQUITY PRICE PATTERNS
United States

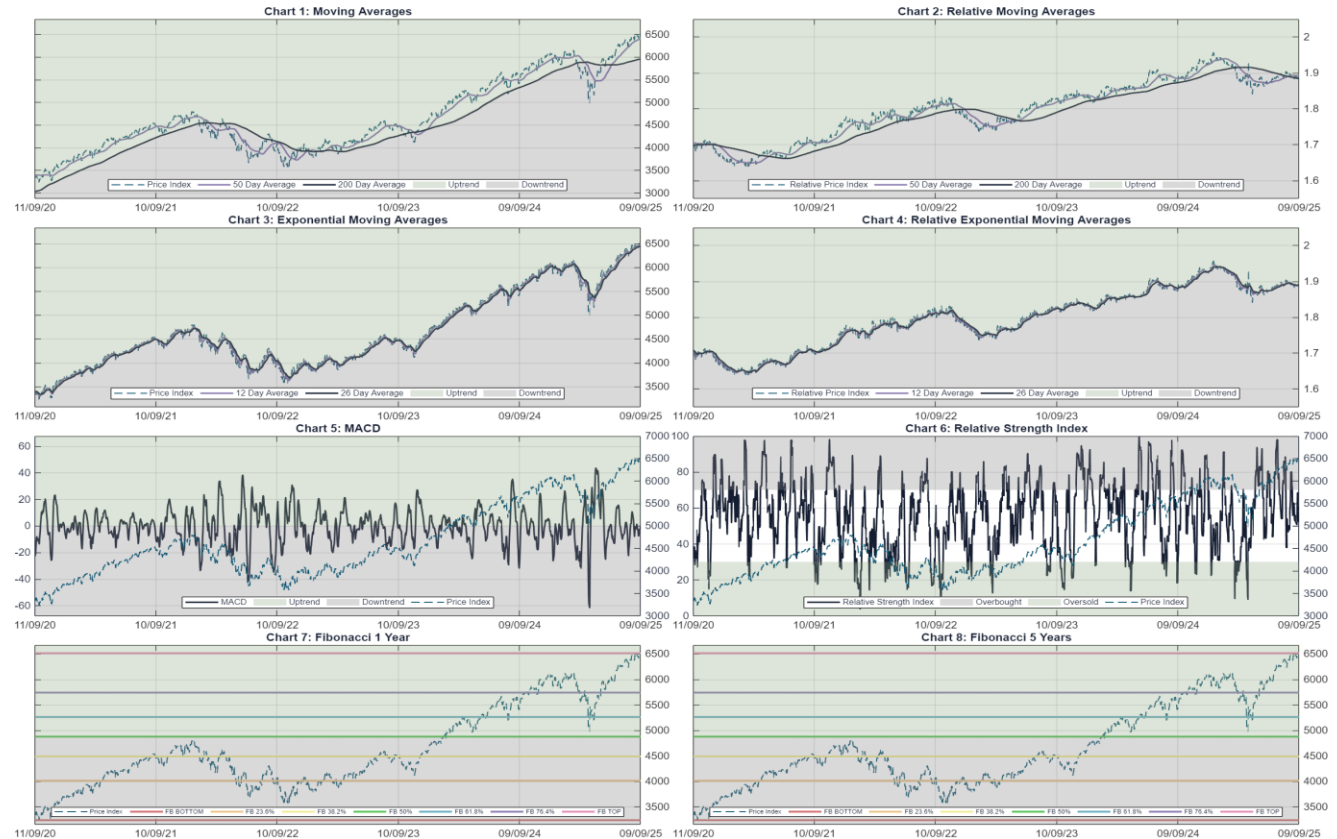
Region
United States

Explanation:

Chart 1 Chart 2
Chart 3 Chart 4
Chart 5 Chart 6
Chart 7 Chart 8

Market moving averages:
Chart showing the Equity market index (right scale) over the past year alongside its 50-day moving average and its 200-day moving average.

The market above its 200-day moving average indicates a long-term uptrend and below a downtrend.



Luccai USA Equity Sectors Technicals Splash Screen

Luccai USA Equity Sector Price Patterns

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SECTORS
PRICE PATTERNS

Information Technology

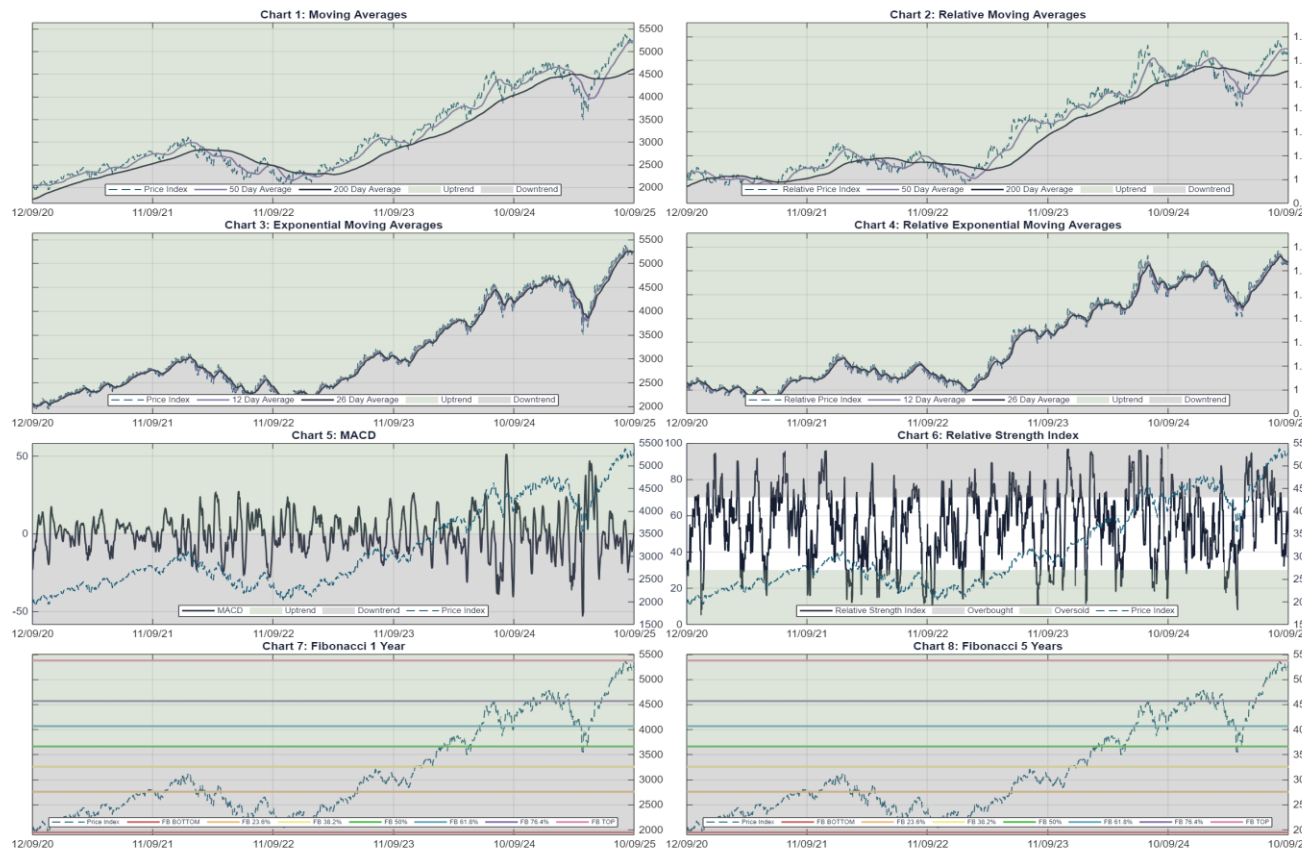
Sector
Information Technology

Explanation:

Chart 1 Chart 2
Chart 3 Chart 4
Chart 5 Chart 6
Chart 7 Chart 8

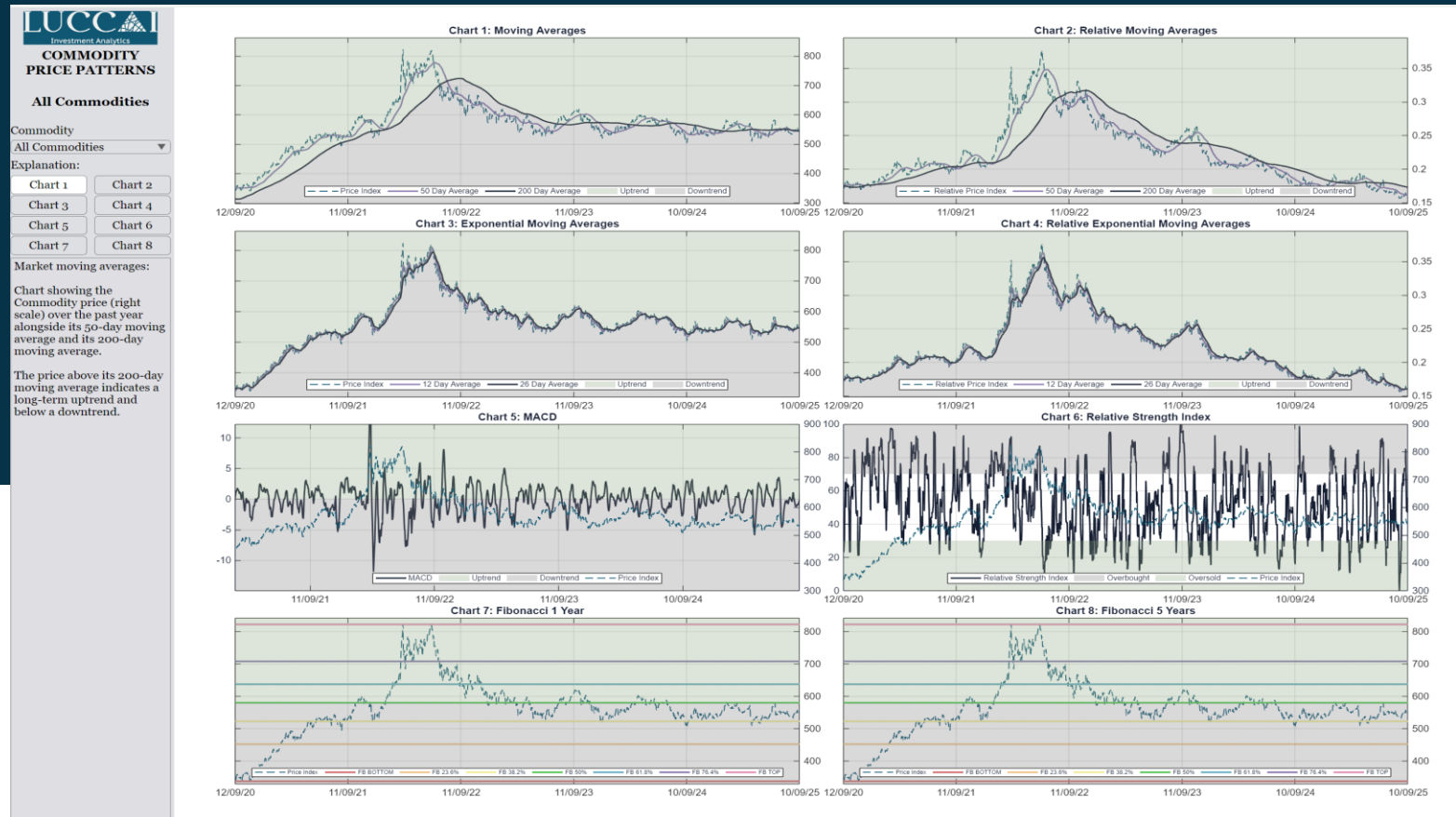
Market moving averages:
Chart showing the Equity market index (right scale) over the past year alongside its 50-day moving average and its 200-day moving average.

The market above its 200-day moving average indicates a long-term uptrend and below a downtrend.



Luccai Commodity Technicals Splash Screen

Luccai Commodity Price Patterns



Information & Appendix

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Investment Analytics

Institutional Manager & Corporate Legal-Finance

More than three decades of performance in multi-asset investing based on macro momentum



John Ricciardi

Head of Asset Allocation

John founded Luccai in Jan 2024, and until then managed his Global Asset Allocation funds at Deuterium Capital Management, Jupiter Asset Management, and Merian Global Investors. John cofounded Kestrel Investment Partners, whose global asset allocation business was bought by Merian in 2019. Prior to Kestrel, John was Iveagh's Head of Asset Allocation between 2006 and 2011, where he launched the Iveagh Wealth Fund, and he was Head of Global Asset Allocation for AllianceBernstein between 1996 and 2003. John also cofounded and built two other successful asset allocation solutions businesses: Cursitor Management which was acquired by AllianceBernstein in 1996 and Bullrun Financial which was sold to Quantal International Inc. in 2010.

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john.ricciardi@luccai.com

John Ricciardi 1995-2025 Founder Luccai Investment Analytics, Head of global asset allocation for Deuterium Capital Management, Lead Manager Global Dynamic Allocation Funds Jupiter Asset Management, Head of global asset allocation for Merian Global Investors, co-founder & CEO at Kestrel Investment Partners. Head of global asset allocation for Alliance Bernstein, \$450 billion AUM, Manager of Cursitor Global Asset Rotation Fund, Head of global asset allocation for Iveagh Ltd, co-founder of Cursitor and founder of Bullrun Financial, a pioneer of quantitative portfolio strategies



Raphaella Ricciardi

Head of Corporate Strategy

Raphaella Ricciardi has over a decade of experience in corporate restructuring and advisory, with a focus on complex cross border transactions. Prior to joining Amakor Capital, she was at Skadden, where she advised creditors and companies on multi-billion dollar restructurings across sectors including energy, aviation, and infrastructure. She has also held venture capital advisory board roles for a multi-family office and several startups. Raphaella holds a JD/MBA from Cornell, an MA from Columbia University, and a BA from the University of Pennsylvania

Investment Analytics Team



Ravi Kishore Booka

Head Quant Analyst

Ravi is the Head Quant Analyst within the Luccai team, a position he has held since Deuterium in Jan 2021 having joined Kestrel in September 2011 as the Chief Technology Officer. Ravi is responsible for the team's technology strategy, and he plays a key role in developing systems to power both the investment process and the research effort. Ravi previously worked with John at Iveagh as technology consultant and was instrumental in developing the innovative tools that drove its investment process.

Ravi began his career as a software engineer with Intoto Software Ltd in India. Ravi has a BSc in Mathematics and Computer Science and an MSc in Electronics from Andhra University, India.



Pramila Prasingu

Data Analyst

Pramila is a Data Analyst within the Luccai team, a position she has held since Deuterium in November 2020 having joined Kestrel in August 2011 as a developer. Pramila is responsible for web administration and the data analysis that underlies the team's investment modelling capabilities. Pramila previously worked with John at Iveagh as intern and was instrumental in data processing.

Pramila began her career with Andhra Bank in India as Helpdesk Executive. Pramila holds a Master's degree in Computer Networks from Middlesex University.



Sarath Kotamarthi

Quant Analyst

Sarath is a Quant Analyst within the Luccai team, a position he has held since Deuterium in November 2020 having joined Kestrel in December 2012 as a consultant developer. Sarath is responsible for organising, analysing and reporting on non-macro-economic and financial market data in support of the team's investment modelling systems.

Sarath began his career with PC DOCTOR 24 in London. Sarath holds a BSc in Computer Science and a MSc in Computer Networking from London Metropolitan University.

About Luccai

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For professional investors only

Features



US Stock Macro Momentum analytics and scores

Online access to US stock scores for circa 500 US large capitalization stocks
Weekly published reports that summarize projected share price impacts

International Stock Macro Momentum analytics and scores

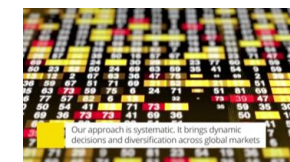
Online access to international stock scores for circa 225 Japanese, 100 UK, 50 Continental European, 50 Chinese, and 50 Developing Market large capitalization stocks
Weekly published reports that summarize projected share price impacts

Global Economic Trend and Macro Momentum analytics and scores

Online access to broad market scores from Luccai's quantitative systems
Weekly published reports that summarize projected market impacts

Qualitative Global Macro Projections

Video calls with Luccai partners
Global asset allocation and sector/security selection projections reflecting Luccai's quantitative systems and qualitative assessments



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