



Permutable

Perspective

Edition 2

Cutting through the noise
Markets. Sentiment. Strategy.

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OUR MISSION & WHAT WE DO

Our Vision

At Permutable AI, we setting the standard for institutional market intelligence. Our large language models transform global macro, geopolitical, and financial noise into sentiment signals that lead the data. Built for hedge funds, asset managers, and investment banks, our technology delivers foresight where reaction times matter and clarity where traditional analysis falls short.

What are Today's Market Challenges, and How Do We Answer Them?

Q: How can we generate alpha from vast amounts of unstructured data?

A: Our leading LLMs and reasoning agents eliminate market noise and convert millions of narratives into structured, quant-ready intelligence. This enables clients to act with foresight, integrating sentiment into systematic and discretionary strategies.

Q: How do we stay ahead in a rapidly shifting economic and geopolitical environment?

A: We track thousands of individual sentiment drivers in real time across energy markets and regional macro indices spanning the G7, BRICS, and global economies. This delivers a continuous read on the factors driving growth, inflation, and asset prices in real time.

Q: How can we anticipate market moves and identify underlying drivers?

A: By ingesting asset-level sentiment signals into systematic workflows, we isolate the causation behind market performance rather than surface correlations. This provides transparency into how narratives drive shifts in positioning, factor exposures, and risk premia, giving investors a forward-looking framework for attribution and alpha capture.

Q: How do we reduce the time spent on signal extraction and insight analysis?

A: Our Trading Co-Pilot cuts analysis time by up to 90%, converting complex, multi-lingual sources and unstructured flows into actionable insights. This accelerates decision-making and frees teams to focus on execution and portfolio construction.

Q: How are the insights deployed into investment processes?

A: Through explainable AI models delivered via API or through our fully operational Trading Co-Pilot user interface. This ensures seamless integration across both systematic and discretionary workflows.

Q: What validates your approach?

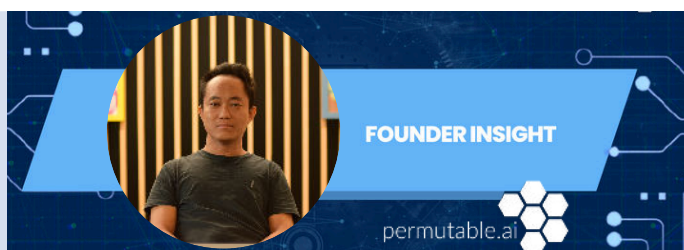
A: We work with leading global institutions and banks across commodities and macro. Our models are validated through live systematic trading strategies that have delivered 17% annualised returns with a Sharpe ratio of 2.9. Complete vintage history is accessible via API, enabling full backtesting and independent validation.

A Message From Our Founder - Wilson Chan

Founder's Insight

Artificial intelligence is no longer a theoretical edge; however the next advantage will come from applying AI to alternative datasets - narratives, sentiment, and macro signals - that expand traditional price and factor-based models. Scale alone is not enough; returns will belong to those who integrate machine learning into portfolio construction, risk management, and execution while retaining human judgment for strategy and conviction. At Permutable, our mission is to transform unstructured market data into quantitative clarity, and foresight into the alpha that defines trading performance.

To speak with me or a member of the team, please contact: enquiries@permutable.ai



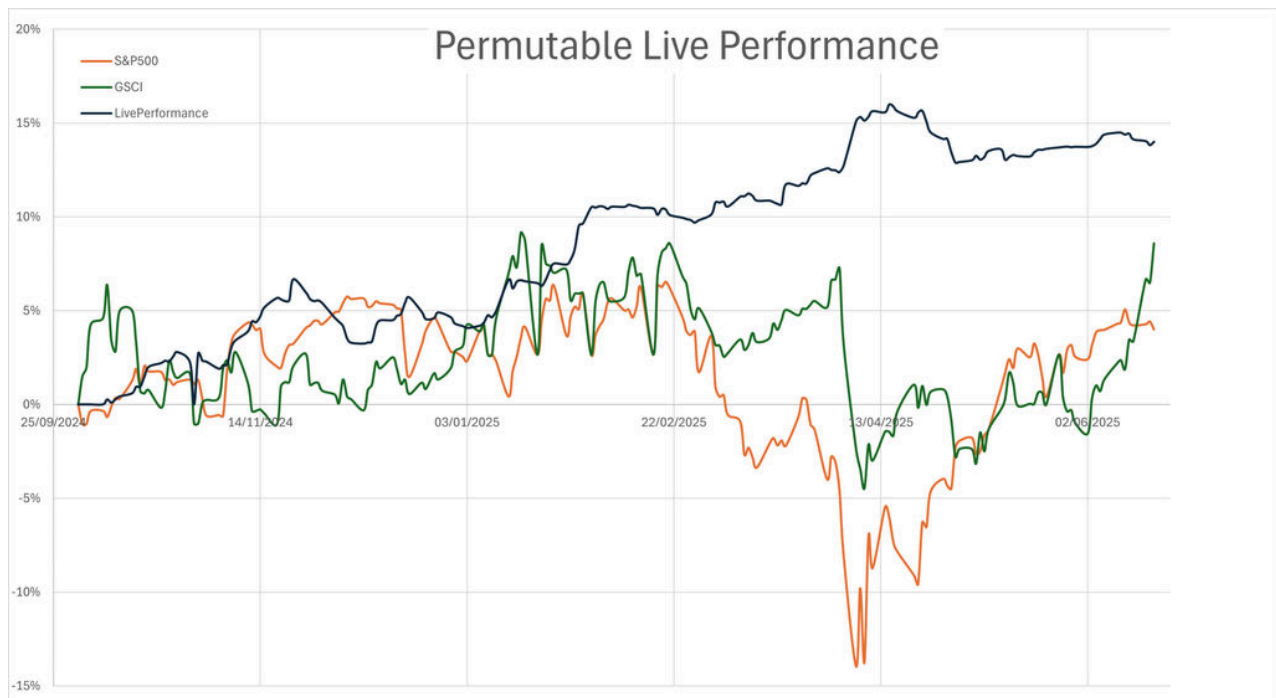
LIVE PERFORMANCE SNAPSHOT

AI-Driven Strategy vs Market Benchmarks

Since October 2024, we have been live-testing our systematic strategies across energy, agriculture, and precious metals markets using our proprietary Trading Co-Pilot platform.

Permutable AI | Live Strategy

Performance vs GSCI & S&P 500



The results speak for themselves:

- Outperformed major commodity benchmarks, including the GSCI.
- Demonstrated strong resilience during equity drawdowns.
- Maintained a low correlation with the S&P 500, offering diversification benefits.
- Achieved consistent alpha through AI-generated signals in real trading conditions.

Metric	Result
Sharpe Ratio	2.9
Annualised Return	17%
Annualised Volatility	<8%
S&P 500 Correlation	-0.15
Benchmark Outperformance	vs GSCI & SGMI
Markets Traded	Energy · Agri · Metals



Join Our Systematic Strategy Briefing

If you represent a fund and would like to receive our weekly systematic newsletter, including real-time signal snapshots, macro sentiment updates, and model performance summaries please email: enquiries@permutable.ai

PRODUCT: INNOVATION & ROADMAP

This month, we advanced our real-time market intelligence by lowering latency end-to-end, expanding multilingual coverage, and hardening models to strengthen performance and insights, laying the ground for upcoming capabilities.

LIVE ENHANCEMENTS

1 Regional Macro Intelligence
Our macro sentiment models are now segmented by geopolitical region, providing more granular tracking of systematic risk at country-level risk via dedicated indices.

2 Forward-Looking Forecasting Suite
Comprehensive monthly, quarterly, and annual analysis, complemented by 1 to 6-month forward projections and scenario-based outlooks.

3 Systematic Energy Indices
Our new suite of Energy Indices provides asset-level granularity across global oil, gas, and LNG, surfacing early signals on supply–demand shifts, policy changes, and sector rotations through event clustering and anomaly monitoring, enhancing positioning and strategy calibration.

COMING SOON...

1 Scaling Asset Coverage
Broader cross-asset and equity sector signals increase factor breadth and signal density, helping funds capture risk premia and sharpen alpha generation.

2 Regional Macro Intelligence – Enhanced Models
Deeper multilingual and local sourcing increases country-level granularity, delivering earlier signals on policy shifts, growth risks, and regional dynamics and sentiment.

3 Expanded Source Ingestion
Multimodal ingestion of text, images, and local-language feeds, with low-latency pipelines, deduplication, and enriched metadata, for accelerated signals and expanded coverage.

KEY METRICS

Raw Data	Indices	10 year Backfill	Daily Throughput
2.5 Billion Headlines	2,640 Macro Indices	70 Million Macro Headlines	500,000+ Headlines
120,000+ Sources	2,580 Asset Indices	250 Million Asset Headlines	10,000+ Sources

Our Asset Coverage

Energy

- Brent Crude Oil
- WTI Crude Oil
- Heating Oil
- Gasoline
- Liquefied Natural Gas
- Henry Hub Natural Gas
- TTF Natural Gas

Metals

- Palladium
- Platinum
- Copper
- Silver
- Gold

Agriculture

- Cotton
- Lean Hogs
- Coffee
- Live Cattle
- Sugar
- Corn
- Soybeans
- Wheat

Currencies

- US Dollar
- USD/CAD
- USD/JPY
- Australian Dollar
- AUD/USD
- Canadian Dollar
- Euro
- EUR/GBP
- EUR/USD
- British Pound
- GBP/JPY
- GBP/USD
- Japanese Yen
- Chinese Yuan

Crypto

- Bitcoin
- Ethereum
- Cardano
- Solana

Fixed Income

- US Treasury T-Note

Equities

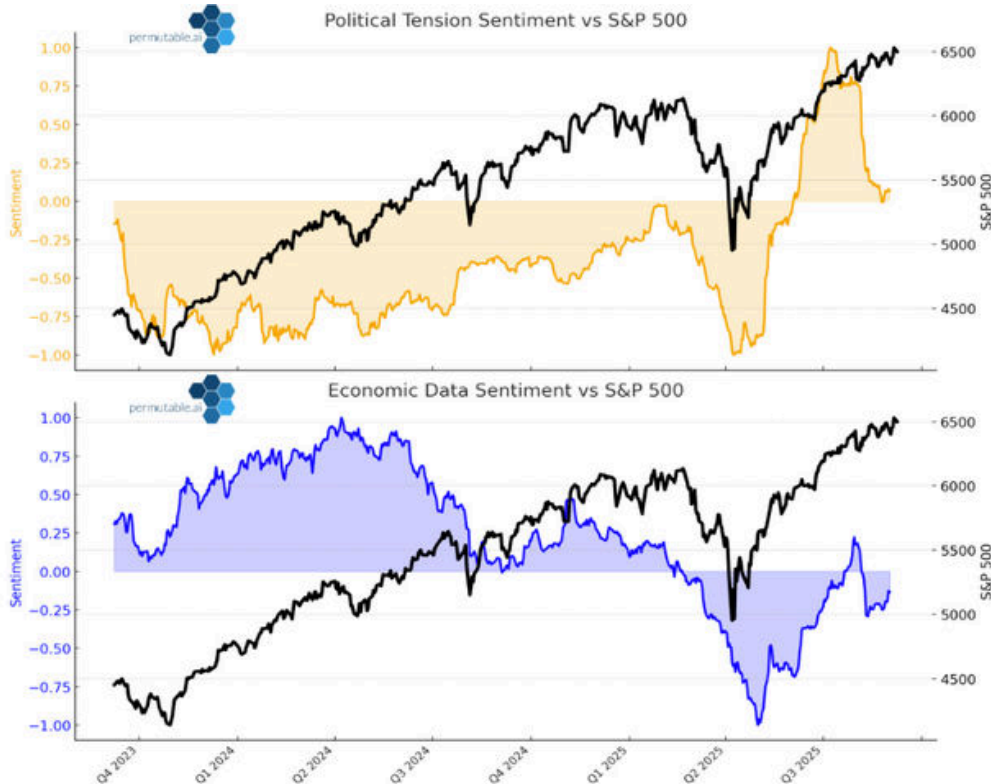
- BlackRock
- Microsoft
- Nvidia
- Tesla

REGIONAL MACRO INDICES

IS SENTIMENT THE NEW MACRO?

At Permutable, we deliver real-time sentiment and intelligence on economic data and market events. With 10 years of hourly history across 10,000 sources via API, we give institutions the market's heartbeat to backtest, capture alpha, and stay ahead.

US MACRO SENTIMENT VS S&P 500



Note: Sentiment leads markets - the S&P 500 rallies despite weak economic data, hinting at bubble risk, while political tension captured tariff-driven nerves and safe-haven flows.

Sentiment Signals Ahead of the Data

Our regional macro indices translate narratives on GDP, inflation, policy, and geopolitics into forward-looking signals for macro indicators and financial markets. By systematically aligning sentiment with observed data, they provide an early read on policy trajectories and market repricing.

- **Policy & Growth Forecasting:** Anticipate shifts in Fed stance and GDP momentum by tracking labour, inflation, and earnings sentiment before prints, revisions, or analyst models adjust.
- **Geopolitical Risk:** Flag when fiscal or geopolitical stress reprices multiples, volatility, and equity positioning.

Application in Practice

- **Macro Forecasting:** Decode growth and policy narrative shifts that filter into sector rotations and index-level repricing well before official data releases.
- **Nowcasting:** Reduce data latency by aligning live sentiment with market pricing, delivering a faster read on market dynamics before official releases.
- **Vintage Macro Data:** Benchmark today's signals against past cycles, contextualising regime shifts in growth, inflation, and policy credibility.
- **Alpha Integration:** Embed sentiment factors into systematic models. Backtest to find efficacy in the 10-day to 6-month horizon where sentiment leads the shift.

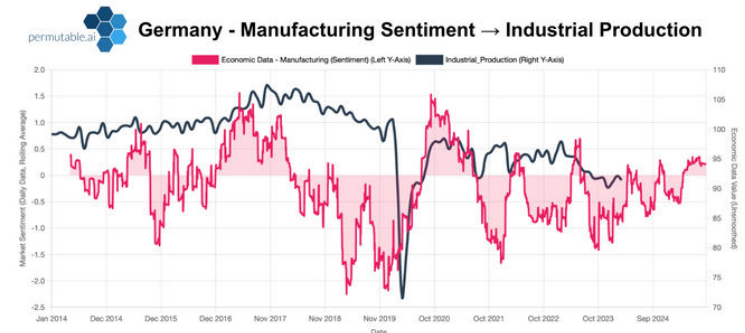
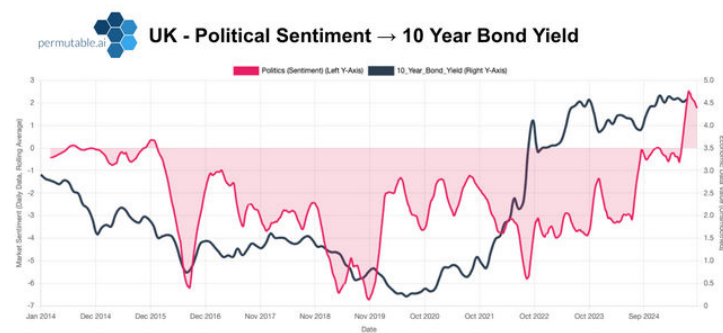
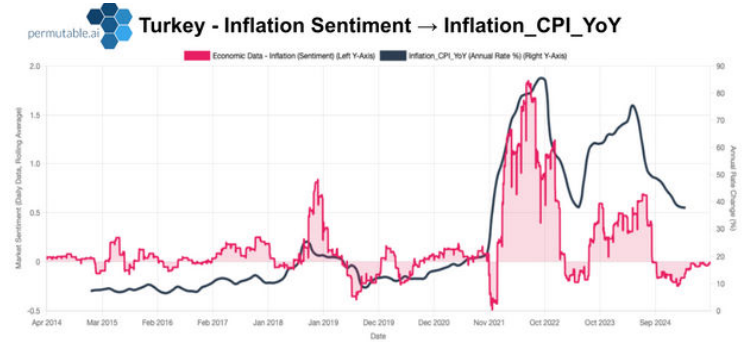
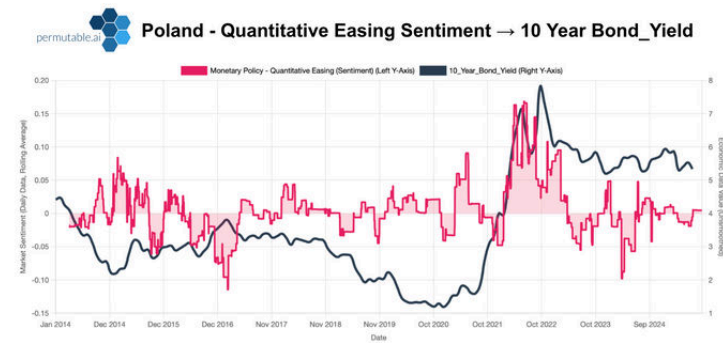
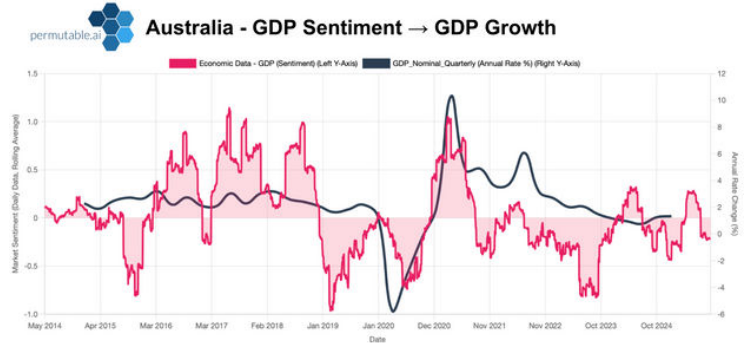
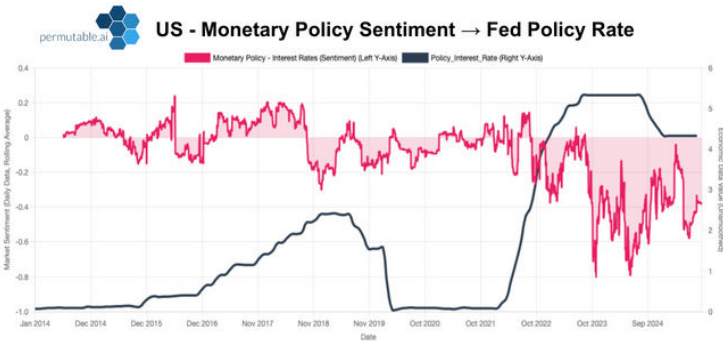
Unlock our Regional Macro Indices: API access to 25+ countries, powering sharper signals.

Contact us about our range of Regional Macro Indices at enquiries@permutable.ai

REGIONAL MACRO INDICES IN MOTION

Harness a decade of macro sentiment data to enhance forecasting, refine allocation, and capture alpha across G7 economies, BRICS, and key global markets

REGIONAL MACRO SENTIMENT TRACKING CYCLES SPANNING G7, EMERGING MARKETS, AND BEYOND



Regional Macro Sentiment: The New Market Driver

Our Regional Macroeconomic Sentiment Indices convert global headlines into systematic factors for forecasting, allocation, and risk. With a decade of hourly history, our low-latency pipelines produce consistent sentiment indices that quantify narrative momentum around growth, trade, and policy in real-time narrative detection.

Key Takeaways

Anticipate Regime Pivots: Detect inflection points in monetary policy, political risk, and growth expectations - signals that often precede turning points in rates, FX, and credit.

Decode Market Narratives: Measure how trade, geopolitical, and policy rhetoric evolve in real time, quantifying narrative momentum before it is reflected in data or price.

Enhance Portfolio Decisions: Improve timing of rotations, hedging strategies, and cross-asset positioning by integrating sentiment factors alongside traditional macro indicators.

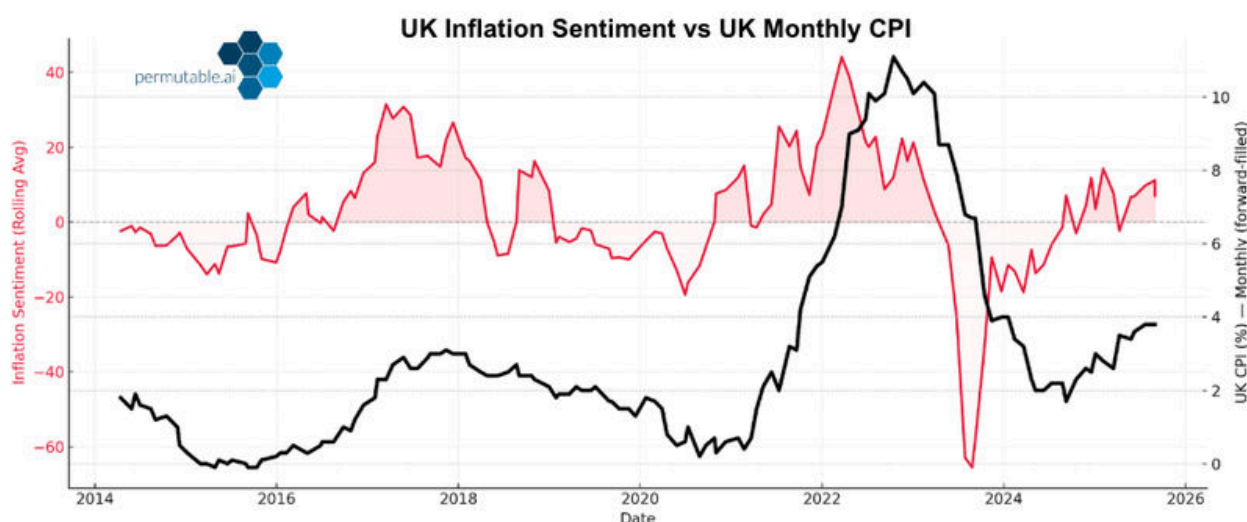
Request a demo or email us about our wide range of indices at enquiries@permutable.ai

UK MACRO SENTIMENT INSIGHT

THE EARLY READ ON INFLATION, GILTS AND CREDIBILITY

Inflation sentiment in the UK turned higher ahead of July's CPI release, a precursor to the upside surprise that followed. That shift was swiftly transmitted into the gilt curve, with 30-year yields repricing above 5.6%. For investors, this sequence highlights the edge of narrative signals: they don't echo the data, they anticipate it.

FROM UK INFLATION SENTIMENT TO POLICY CREDIBILITY



Credibility Under Pressure

July CPI rose to 3.8% y/y (from 3.6%) just weeks after the BoE cut rates to 4%, deepening unease over fiscal credibility.

- **Policy Mismatch:** Inflation sentiment turned higher even as policy loosened, signalling a widening disconnect.
- **Market Verdict:** The result is a credibility gap, priced directly into the long end of the curve.
- **Comparative Signal:** UK gilts trade at a clear G7 premium (US 4.9%, France 4.2%, Germany 3.3%, Japan 3.2%), cementing the UK's outlier status.
- **Systemic Stress:** Rising term premia reflect structural repricing, as sentiment-led inflation risks undermine policy credibility.

The Long-End Verdict

- The gilt curve has become the register of doubt in UK policy.
- Each rise in yield reflects a higher risk premium to hold UK debt.
- UK long-end remains bid at higher yields, with inflation sentiment anchoring risk premia.

Systematic Implications

- Inflation sentiment is now the early-warning system for credibility risk, signalling stress before it breaks.
- Debt costs rise for government and corporates, tightening financial conditions.
- Relative value erodes, pushing gilts down global investor preference lists.

Institutional Applications

The Regional Macro Sentiment Index integrates into institutional workflows to deliver:

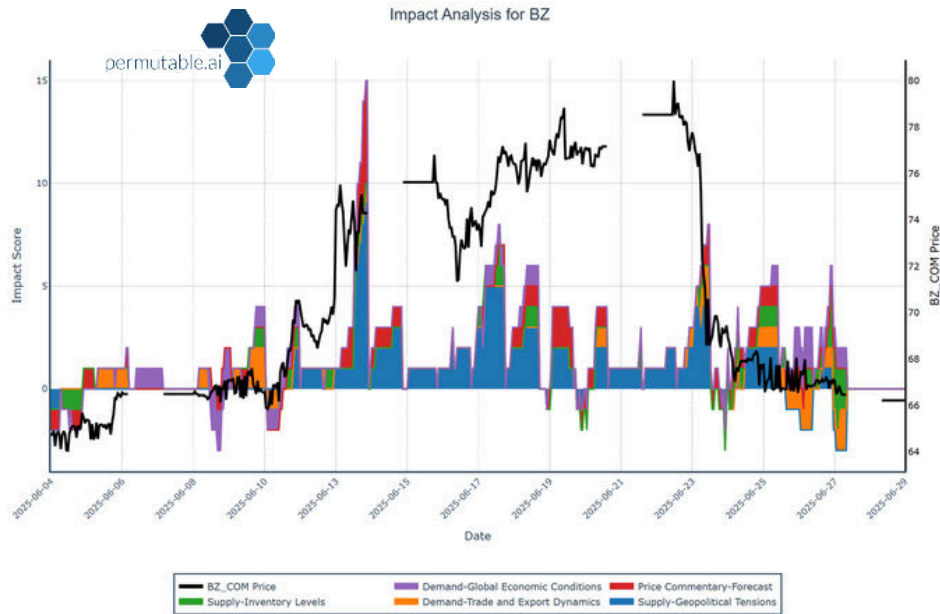
- **Systematic Trade Execution & Market Timing:** Real-time sentiment signals for model-based execution and tactical positioning during geopolitical volatility.
- **Proactive Risk & Portfolio Management:** Identify escalation risks early and rebalance exposure around regional stress points.
- **Macro Strategy Enhancement:** Incorporate sentiment into broader asset allocation frameworks for improved decision-making.

ENERGY MARKET INDICES

462 INDICES REDEFINING ENERGY MARKET INTELLIGENCE

We have launched our Energy Market Indices suite, comprising of 462 indices across global oil, natural gas, and LNG. Designed for institutional traders and investment managers, the suite combines deep historical datasets, live intraday feeds, and AI-driven analytics to deliver earlier and clearer market signals.

SYSTEMATIC ENERGY MARKET INDICES - BRENT CRUDE



Note: Brent Impact Analysis - Systematic Energy Indices show how shifts in supply, demand, and geopolitics drive market impact in real time, revealing the forces behind Brent volatility.

Why Energy Market Indices

Energy markets trade on the fault line of fundamentals, policy, and geopolitics. Our Systematic Energy Indices bridge that gap, fusing supply-demand dynamics with sentiment to deliver tradable signals, alpha generation, and real-time market insight.

- **Historical Depth:** Full datasets across cycles for robust backtesting and precise model calibration.
- **Intraday Feeds:** Low-latency responsiveness for real-time trading decisions and execution.
- **Fundamentals:** Trade flows, inventories, production trends, and detailed analyst forecasts giving forward-looking signals.
- **Macro Integration:** Policy shifts, geopolitical risk, and natural disasters.
- **Global Coverage:** Europe, North America, Asia, and the Middle East.

Use Cases: Applying Our Intelligence

- **Systematic Strategies:** API datasets enable quants to understand the causations behind the market responses and integrate real-time sentiment into models.
- **Discretionary Traders:** Dashboards surface intraday shifts with AI-driven alerts on narrative build up.
- **Risk Managers:** Track sentiment around pipelines, storage capacity, policy shifts, OPEC+ supply decisions, refinery outages, shipping chokepoints, sanctions, and extreme weather to stress-test portfolios.
- **Arbitrage Desks:** Compare regional sentiment and fundamentals across Europe, North America, and Asia to spot dislocations and exploit spreads.

Where Foresight Meets Strategy

Energy indices built to drive strategy, execution, and risk control.

Request a demo and see the edge in action: enquiries@permutable.ai

CLIENT INTEGRATION

OUR TRADING CO-PILOT AND API NEWS FEED

Clients can seamlessly integrate our real-time headline sentiment API and signals into their trading workflows via Trading Co-Pilot, enabling faster, more informed decision-making.

USE CASE: INSTITUTIONAL CLIENT DEPLOYING OUR TRADING CO-PILOT & SENTIMENT IN WORKFLOW



Our Trading Co-Pilot

Chart Above: Captured Brents bearish regime change in early Sept 2025 after sentiment turned and the reversal following growing tension in Middle-East.

Brent dipped to a one-week low as markets digested OPEC+ supply-hike signals. A well positioned and timely short opportunity.

- **Auto Analyst:** Breaks down recent market moves with concise summaries of key drivers using sentiment, macro, and fundamentals.
- **Forecast Agent:** Delivers hourly BUY/SELL signals with supporting rationale and topic-level sentiment.

Workflow Integration

- **Plug-and-Play API:** Sentiment feeds directly into internal dashboards and risk models. All available via API - including macro and geopolitical sentiment, asset event metrics, alongside insights and forecasts.
- **Our Trading Co-Pilot:** Surfaces trade-ready signals across equities, FX, rates, and commodities.
- **Automated Alerts:** Custom thresholds trigger intra-day or swing trade setups.
- **Cross-Asset Overlays:** Used to refine entry/exit points and sector rotation logic.

See How Our Trading Co-Pilot Works

Our plug-and-play API streams trade-ready signals across equities, FX, rates, and commodities, with alerts to refine entries and exits. Auto Analyst explains the drivers behind each move, while Forecast Agent delivers hourly BUY/SELL calls with clear rationale.

Combined, they deliver fast, end-to-end insight into past trends, current drivers, and future direction.

Sharper signals, faster execution. Request demo at enquiries@permutable.ai

BUILT FOR SYSTEMATIC, TUNED FOR ALPHA

Our structured event data converts market stories into quant inputs, with timestamped, ticker-linked macro and fundamental events. The API also delivers analyst insights and forecasts ready for models, backtests, and live pipelines.

MAKING THE MOST OF OUR API FEEDS

News Feeds - Events

Retrieve information about significant market events identified from news articles. These can be fundamental (company-specific) or macro (market-wide) events.

Macroeconomic Events for a Ticker

Retrieves a paginated list of macroeconomic events relevant to a specific ticker, ordered by date. Supports date range filtering.

AUTHORIZATIONS: *APIKeyHeader*

PATH PARAMETERS

<code>→ ticker</code>	string (Ticker) Ticker of the entity to fetch events for. Get these from GET /ticker endpoints.
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QUERY PARAMETERS

<code>start_date</code>	string <date-time> (Start Date) Default: "2025-09-10T11:00:39.821510" Earliest date of the events to fetch (max 3 months before current date)
<code>end_date</code>	string <date-time> (End Date) Default: "2025-09-11T11:00:39.821525" Latest date of the events to fetch
<code>limit</code>	integer (Limit) [1..100] Default: 10 Number of events per page

Client API dashboard: built for querying, filtering, and exporting event data directly into quant pipelines

Turning Data into Signals

We've tailored the API feed to make macro and asset event data frictionless for systematics, structured, timestamped, and ready for direct model use.

API Feed - Technical Use for Quants

- **Structured Input** – Market events delivered as JSON (topic, sentiment, summary, timestamp, ticker).
- **Custom Querying** – Filter by ticker, date range, event type; supports pagination & limits.
- **Data Integration** – Merge seamlessly with price/volume data for factor models & regime tests.
- **Backtesting Utility** – Analyse how events (Fed moves, trade shocks, inventories) shaped returns.
- **Systematic Strategies** – Generate event-driven signals (surprise indices, sentiment overlays).
- **Workflow Automation** – Built for data lakes, dashboards & execution engines with minimal latency.

Events API

- Ticker-based event pulls
- Date filtering (3 months back)
- Paginated results
- Chronological JSON and YAML output
- Backtest & live ready

Systematic Usage

- **Signals** - Convert events into measurable drivers of market behaviour.
- **Causality** - Test lead/lag effects on price regimes.
- **Risk** - Embed policy, geopolitical shocks in models.
- **Alpha** - Drive event-driven trading strategies.
- **Integration** - Feed directly into pipelines & execution.



[To see how our API works and how it can fit into your workflow, use the following link](#)

permutable.ai



DECODING MARKETS.
DELIVERING EDGE.