MARKETPSYCH ANALYTICS FROM REFINITIV

Rich sentiment data tracking news and social media in real time
Media sentiment analytics like no other

- **Take the market’s pulse**: buzz and sentiment scores on thousands of news and social media sources
- **Easy to use**: time-series data with real-time updates, using stable entity identifiers
- **Granular**: transforms unstructured text into dozens of scores – delivered every 60 seconds, hourly and daily
- **Versatile use cases**: alternative data proven to drive profitable research and decision making

**MarketPsych Analytics from Refinitiv**

**Broad content and cutting-edge NLP**

Using a patented natural language processing engine, MarketPsych Analytics turns unstructured text from thousands of curated news and social media sources into structured scores.

The data provides highly dimensional analysis of high-quality news outlets, including the full Reuters real-time markets coverage. Data coverage spans a universe of social channels — including Reddit and Twitter®. Refined spam detection and deduplication filters based on years of hand-on experience increase score relevance and reliability.

Our feature-rich data stream tracks over a hundred sentiment scores for indices, stocks, commodities and currencies. Updated once a minute, the data can easily be used in dashboards and statistical tools for rapid investment-idea development.

**By the numbers**

- **Wide coverage**:
  - 252 countries
  - 30,000+ global companies, sectors and ETFs
  - 62 stock indexes and sovereign bonds
  - 44 currencies
  - 53 commodities
  - 300+ cryptocurrencies

- **Long history**: 1998 to the present
- **Multi-language**: 12 languages
- **AI-based**: machine learning NLP system
- **Highly granular**: 100+ scores
- **Real time**: 60 second, hourly and daily updates
- **Sources**: +4,000 news and social media outlets

**Example scores by asset class**

For each asset tracked, MarketPsych Analytics monitors **Mentions** (number of references) and **Sentiment** (positive or negative tones). The data also tracks a range of **emotional indicators** – including Optimism, Fear, Uncertainty – and **fundamental themes** – such as earnings forecast, fundamental sentiment and interest rates forecast – and many others.

For each asset class, our data includes multiple scores. Below are a few that our clients find useful.

**Multidimensional sentiment and topics**

<table>
<thead>
<tr>
<th>Commodities</th>
<th>Companies</th>
<th>Countries</th>
<th>Country markets</th>
<th>Currencies</th>
<th>Cryptocurrencies</th>
</tr>
</thead>
<tbody>
<tr>
<td>Acreage</td>
<td>Accounting Sentiment, Analyst Rating, Earnings Forecast</td>
<td>Agricultural Stress, Consumer Sentiment</td>
<td>Bond Buzz, Bond Sentiment, Bond Trust</td>
<td>Carry Trade, Currency Peg Instability</td>
<td>Adoption</td>
</tr>
<tr>
<td>Agricultural Disease</td>
<td>Innovation, Labour Dispute, Layoffs, Litigation</td>
<td>Economic Uncertainty, Government Corruption</td>
<td>Stock Index Sentiment, Stock Index Trust</td>
<td>Emotion vs Fact, Future vs Past</td>
<td>Attack</td>
</tr>
<tr>
<td>Consumption Volume</td>
<td>Management, Sentiment, Product Sentiment, Price Forecast</td>
<td>Inflation Forecast, Social Inequality</td>
<td>Stock Index Uncertainty, Rates Buzz</td>
<td>Long Shot, Long Shot Forecast</td>
<td>Code Sentiment</td>
</tr>
<tr>
<td>New Exploration</td>
<td></td>
<td>Social Unrest, Terrorism, Trade Balance</td>
<td>Interest Rate Forecast, Monetary Policy Loose</td>
<td>Market Risk</td>
<td>Code Upgrade</td>
</tr>
<tr>
<td>Price Direction</td>
<td></td>
<td>Unemployment</td>
<td>Real Estate Sentiment</td>
<td>Price Direction, Price Forecast, Price Momentum</td>
<td>Developer Sentiment</td>
</tr>
<tr>
<td>Price Forecast</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>FOMO</td>
</tr>
<tr>
<td>Production Volume</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>HODL</td>
</tr>
<tr>
<td>Safety Accident</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Regulatory Crackdown</td>
</tr>
<tr>
<td>Supply vs Demand</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Scam</td>
</tr>
<tr>
<td>Weather Damage</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Transaction Speed</td>
</tr>
</tbody>
</table>
From data to outcomes – Examples

Find outperforming assets

Financial markets take time to fully digest news. This is true for both good news and bad – and presents a unique opportunity for those with a keen eye for sentiment analysis.

A practical example is shown in the figure to the right – depicting a study of 30,000 global companies over the 2006-2020 period. MarketPsych calculated each company’s average sentiment over the previous month. Using this score, they grouped companies into deciles, and we averaged each group’s subsequent 90-day stock price performance relative to the groups’ average. Stocks with the most positive media sentiment over the prior month significantly outperformed the most negative over the following 90 days. The price spread is just one actionable opportunity among many – made possible by extracting signal from the noise in unstructured news data. Buy-side and research firms can develop their own sentiment-based signals using such insights.

Time trends with sentiment

Media sentiment sometimes leads prices at major turning points. Sentiment moving averages can help identify tops and bottoms, improving asset allocation and risk-on/risk-off timing.

For example, the graph to the right shows the performance of the S&P 500 (orange daily bars) versus media sentiment during 2020. The smooth lines show two moving averages of media sentiment (30 and 90 days).

Green shading appears between the averages when the 30-day average is above the 90-day (meaning that recent sentiment is rising), and red shading appears when below (recent sentiment is falling). Note that media sentiment generated a risk-off signal, declining steeply before the S&P 500 stock market’s sell-off in response to Covid-19’s spread.

Screen for opportunities

Visualisation tools and screeners help investors unearth opportunities and risks. For example, the Trust indicator heat map to the right shows the percentage of all language conveying trust in U.S. companies during Q1 2021. Firms whose media coverage scores highly on trust are shown in bright green, while those with lower trust scores appear in brighter red. The map was produced during the Covid-19 pandemic and the U.S. presidential transition. Note that vaccine makers and biotech firms ranked highly on trust, while information platforms including Twitter and Facebook ranked low. Data analysts can monitor dozens of business and supply chain risks in real-time using such visualization tools and screeners.
Achieve more with data

Why MarketPsych Analytics
MarketPsych produces innovative data feeds by performing high-speed AI-based natural language processing on millions of daily news and social media messages. Data customers hail from 25+ countries.

Our data, which extracts meaningful measures from the global information flow, underlies bespoke alpha-generation models, risk-management tools and insightful research.

New financial insights derived from the data have featured in 60+ academic papers and are available in our book “Trading on Sentiment” (Wiley Finance, 2016), also available in Chinese and Japanese.

Why Refinitiv
Refinitiv, now part of London Stock Exchange Group, is one of the world’s largest providers of financial markets data and infrastructure. With $6.25 billion in revenue, over 40,000 customers and 400,000 end users across 190 countries, we provide information, insights and technology that enable customers to execute critical investing, trading and risk decisions with confidence.

We draw on cleaner, richer, more readily accessible data to support the use of AI and machine learning – helping our customers gain greater insight, boost performance and fuel more rapid innovation.

Popular client use cases

Sample client profiles

− Global macro hedge funds
  Understand market cycles based on the psychological perceptions in each country, market and asset class. Make superior global asset allocation decisions.

− Forex and currency
  Identify news and social media flow that impacts investment theses. Find arbitrage opportunities by monitoring macroeconomic imbalances and attitudes towards countries and currencies.

− Commodity and energy firms
  Track global information flow about agricultural and energy products, including supply and demand issues, industrial accidents and weather damage, better-time trend emergence, exhaustion and reversals.

− Cryptocurrency investors and exchanges
  Deploy artificial intelligence and machine learning strategies to anticipate swings in sentiment. Hedge as investor enthusiasm wanes. Identify trending coins and innovative technologies.

Data experts using our products

− Quant traders/investors
  Better identify changing market cycles, augment alpha generation strategies and improve risk models. Refine momentum, mean reversion and volatility strategies.

− Research analysts
  Find insights in the crowd and see what is being missed. Monitor market-moving events. Identify the specific price drivers of an asset.

− Risk managers
  Identify the emergence of new risk and dangerous events. Monitor speculative and crowding risk across assets in which your firm is positioned.

− Economists
  Monitor risk perceptions across global economies, sovereign bonds, and currencies. Identify changes in key macroeconomic themes such as global interest rate forecasts and unemployment. Update leading economic indicators with news and information as it happens (nowcasting).