



REFINITIV[®] MARKETPSYCH ESG ANALYTICS

**ESG data designed to drive better
investment decisions**

Refinitiv[®] MarketPsych ESG Analytics analyze corporate sustainability-related news and social media in near real-time.

Powered by MarketPsych Data's AI-based natural language processing engine, the analytics are derived from millions of daily articles in thousands of global news and social media outlets. They provide numerical ESG insights on companies and countries to drive better investment decisions.

Incorporate Refinitiv MarketPsych ESG Analytics into your process

To monitor perceptions of sustainability and ESG risk, Refinitiv and MarketPsych partnered to create multidimensional ESG analytics. The analytics capture key ESG themes in twelve languages for 100,000+ public and private companies (54,000+ public and 50,000+ private companies) and 252 countries and regions.

Rather than scoring sustainability from a company's own reports, the Refinitiv MarketPsych ESG Analytics feed provides an external news and social media-based perspective on ESG initiatives and performance.

The analytics can be used by:

- Quantitative investors to provide uncorrelated alpha signals
- Discretionary investors to allocate assets and manage risks
- Corporate clients to monitor market perceptions
- Regulators to precisely direct investigations
- Analysts and researchers to identify greenwashing

Constructed with AI

The software underlying the Refinitiv MarketPsych ESG Analytics is a complex AI-based natural language processing (NLP) engine hosted on a carbon-neutral array of cloud servers. It locates, filters and scores environmental, social and governance-themed (ESG-themed) content pertaining to specific companies as well as cities, regions and countries. It incorporates tens of millions of authors over 2 million articles and posts daily from premium news publishers, internet news sources, ESG blogs and social media.

The NLP engine scores sentiment on more than 4,000 dimensions including specific policies, actions, and themes. As a result, the Refinitiv MarketPsych ESG Analytics can quantify complex meaning in text, including references to such market-moving events as intellectual property violations, management scandals and ESG policy failures.

Coverage

History

History is available from news and social media sources back to January 1, 1998.

Languages

English-language text is scored starting from 1998. Arabic, Chinese, Japanese, and Portuguese-language news sources are scored since February 2020, with Dutch, French, German, Indonesian, Italian, Korean, Spanish, and Russian added in January 2021.

Companies coverage

More than 100,000 companies from over 120 countries are covered across the feeds and archives:

- 38,000+ Americas equities (14,000+ public and 24,000+ private)
- 29,000+ EMEA equities (14,000+ public and 14,000+ private)
- 34,000+ AsiaPac equities (24,000+ public and 9,000+ private)

Access

Two data packages are available in the Refinitiv MarketPsych ESG Analytics:

Core package:

- Seventeen daily scores from combined news and social media for every company and country.
 - Buzz score (1)
 - ESG Combined score (1)
 - ESG score (1)
 - ESG Controversies score (1)
 - Pillar scores (3 = E, S, G)
 - Category scores (10) provided

Advanced package:

- Provided with access to daily Core scores, plus:
 - 300 analytics for companies (CMPNY-ESG)
 - 456 analytics for countries (COU-ESG)
 - Each advanced analytic updates minutely, hourly and daily

Overall scores in the Core package

In the Core package seventeen daily scores are published. These core scores are weighted averages of the underlying Advanced scores, as described below.

The Refinitiv MarketPsych ESG Core data was designed to compare to the core scores in the Refinitiv ESG data. The Core scores utilize the same industry-based weightings and percentile ranking operations as the Refinitiv ESG data. A key difference, and value-add, between the two products is the primary perspective taken by the ESG reporting: external media (MarketPsych ESG Analytics) versus internal corporate documents (Refinitiv ESG data).

Detailed scores in the Advanced package

In the Advanced package, scores for hundreds of ESG indicators are published in near real-time. These items also match counterparts within the Refinitiv ESG framework.

The Advanced package includes three broad pillars of ESG indicators:

- Environmental (E) indicators such as Recycling, CarbonEmissionsImprovement and ForestHealth
- Social (S) metrics including WorkplaceConditions, PublicHealthEfforts, and Misinformation
- Governance (G) measures like ManagementTrust, CivicEngagement and SocialUnrest

In addition to traditional ESG analytics, Controversy and Buzz analytics are also provided:

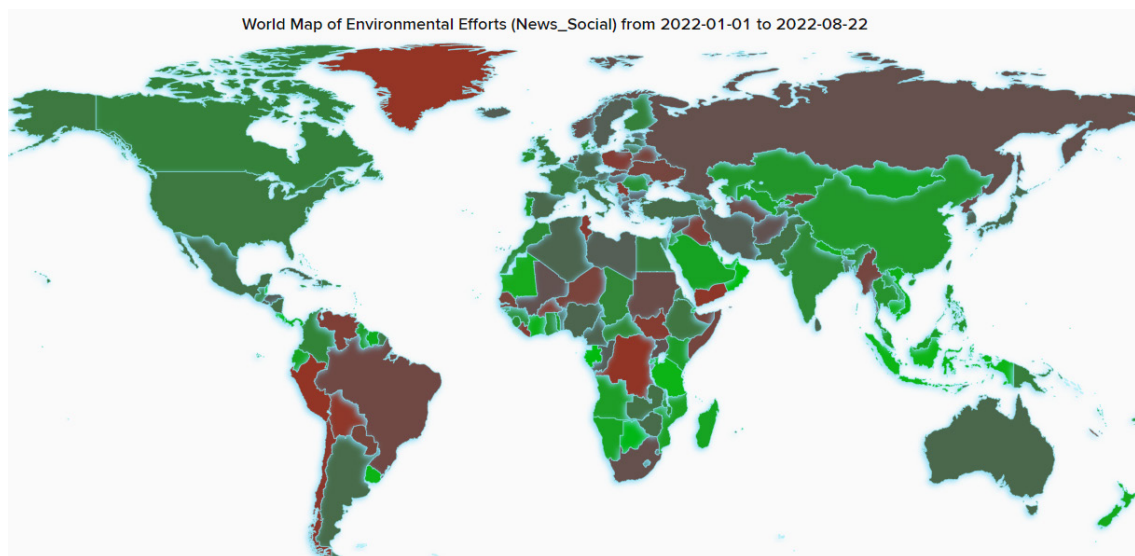
- Controversy (C) scores including AirborneEmissionsControversy, IndustrialAccident and TaxFraud
- Buzz metrics are a proxy for media attention, and they deliver the number of ESG-relevant references to a given asset (company or country locations) in the media

The Analytics in Action

Refinitiv MarketPsych ESG Analytics can be used to inform research, business planning, and investment strategies.

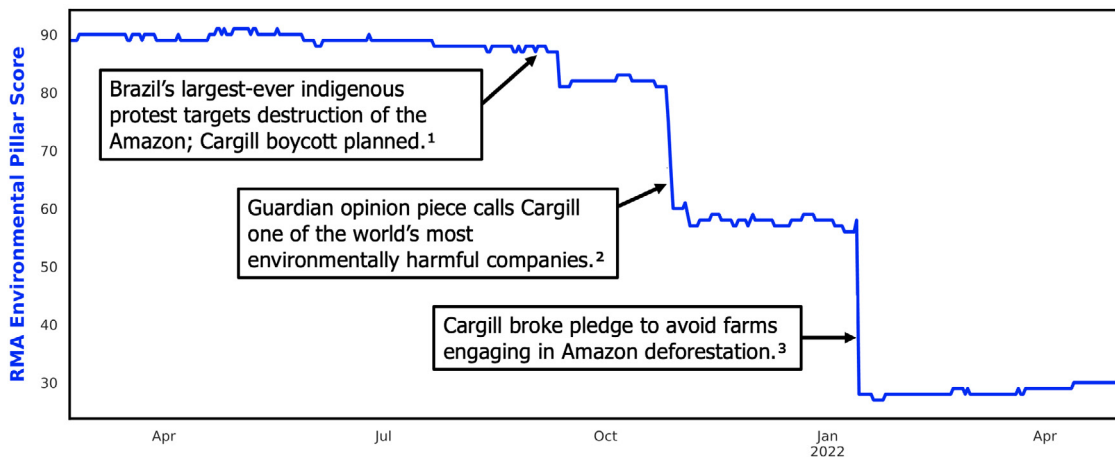
National environmental efforts

Using the EnvironmentalEfforts score, we see the level of environmental clean-up, conservation and protection, climate mitigation, and sustainable technology initiatives reported in global media - allowing analysts to evaluate overall environmental efforts.



Private company monitoring

Companies whose regulatory environment does not require ESG disclosure, including private companies, create a gap in standard ESG data and scoring. Yet many such companies are critical to economies and supply chains. The chart below demonstrates how one company which doesn't file regulatory ESG data, Cargill, has had a declining Environmental score derived from media sentiment based on deforestation reports.

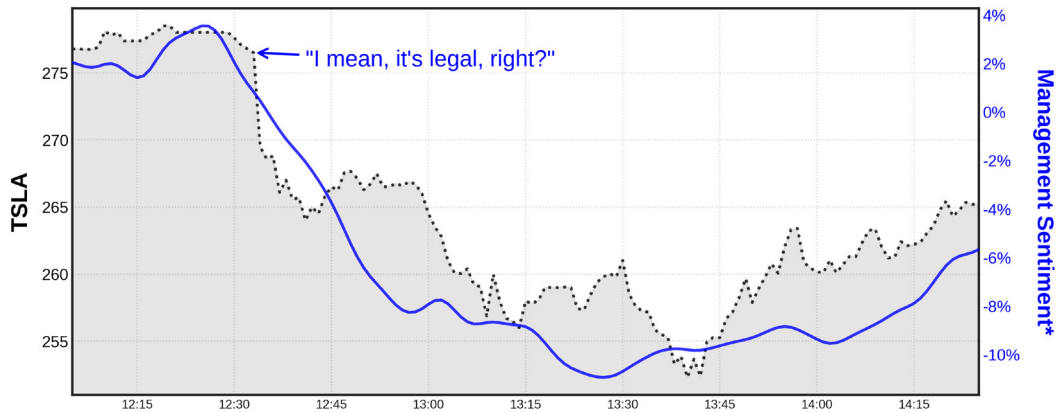


¹ The Intercept, August 28th 2021
² The Guardian, October 28th 2021
³ The Bureau of Investigative Journalism, January 14th 2022

Source: MarketPsych Data

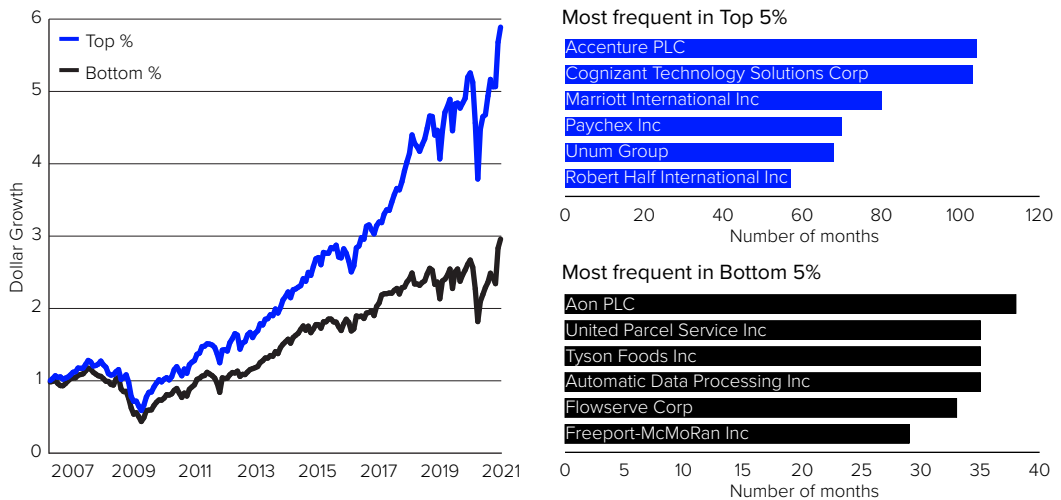
Near real-time corporate risk management

By incorporating management sentiment into analysis, you can catch controversies before they break in mainstream media. The example below shows the reaction of the Tesla stock price and the ManagementSentiment ESG score following Elon Musk’s public substance use on September 8, 2018 during The Joe Rogan Experience.



Quantitative portfolio management

One of the advanced ESG scores is WorkplaceSentiment. In basic quantitative research, when S&P 500 companies are ranked by their past month’s WorkplaceSentiment score, the stock prices of companies with extremely high sentiment (top 5%) significantly outperform those with low sentiment (bottom 5%) month after month. See our whitepapers for our latest quantitative research.



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