



Smarter, Safer, Scalable

From Gut Feeling to Daily Scores in 4 Minutes: GenAI in Macro Research

CASE STUDY

Industry: Asset Management / Financial Services

Client: Investment Research Team (Confidential)

Year: 2025



A European asset manager needed a more systematic way to tune their portfolios based on the tone and recommendations found in daily macroeconomic reports published by investment banks and financial consultants. Over four years, they had collected nearly 3,800 PDF reports, roughly 240,000 pages, with new material arriving every day.

Their research team could only skim a few fresh reports each morning, often reacting too late to shifts in market sentiment.



CHALLENGES

Transforming nearly four years of dense financial reports into a reliable, daily investment sentiment score, fast enough to act on, and accurate enough to trust. Therefore, we formulated our goals:

1. Process Large Volumes in Minutes



Automate the extraction of insights from **60+ pages of daily financial analysis in under 5 minutes**, replacing manual workflows that took hours.

2. Extract Granular Sentiment Signals



Identify and weigh key market drivers, such as regime shifts, liquidity, and inflation, directly from unstructured text.

3. Achieve Quant-Grade Rigor



Deliver **a sentiment score that aligns with established benchmarks** like CNN's Fear & Greed Index, while incorporating the client's proprietary insights.



SOLUTION

FROM IDEA TO DELIVERY IN 6 WEEKS

To address these challenges, OPTI implemented a custom AI pipeline using Google Cloud's Gemini 2.5, purpose-built to analyze large financial documents at scale. Key components included:

1. End-to-End ETL Pipeline

- ✓ Automated ingestion of daily reports using Cloud Storage triggers and Cloud Functions, with OCR fallback for scanned pages.

2. AI-Powered Document Understanding

- ✓ Gemini 2.5 used strict prompt engineering and a map-reduce strategy to extract sentiment-relevant sections, financial tables, and key signals from unstructured text.

3. Custom Sentiment Scoring Model

- ✓ Insights were weighted across several market drivers (Regime, Liquidity, Positioning, Policy/Fiscal, etc), then normalized into a 0–100 daily sentiment score via an automated workflow.

4. Live Dashboard & Tactical Insights



Scores were synced to Looker Studio / Google Sheets, enabling real-time monitoring and supporting tactical allocation decisions (Equity, Bonds, etc.).



RESULTS (30 DAYS LATER)

210h development + 30h PM/testing, Delivered in 6 Weeks



100% coverage of reports

All 3,800 initial reports + daily incoming documents now processed automatically.



< 5 minutes processing time

Down from 2–3 hours of manual reading per day.



High correlation with CNN Fear & Greed Index ($r = 0.79$)

Aligned sentiment trajectory during major events (e.g., Powell speeches).



Dashboard for daily allocation decisions

Enables data-driven shifts between asset classes, based on in-depth report analysis.

TESTIMONIAL

"It is amazing that you rediscovered the CNN Fear & Greed index independently via AI. This proves AI can bring precision to financial research."

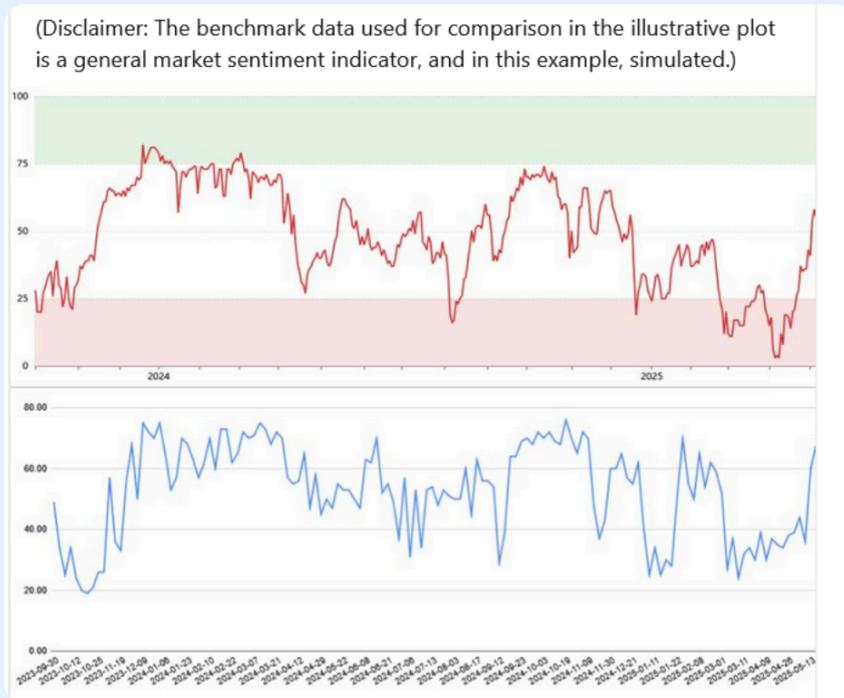
— Investor and asset manager

TECHNOLOGIES

Google Cloud Run · Cloud Functions · Vertex AI Gemini 2.5 · BigQuery ·
Looker Studio

Digging for insights? Start here.

→ Let's launch your POC in 30 days.



***The CNN Fear & Greed Index (top) vs. the results of our AI-based sentiment analysis (bottom).
Its responses closely follow the well-known CNN index, showing that our AI can reliably interpret complex
market sentiment.***

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OPTI

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OPTI builds software, AI agents, and HubSpot integrations on Google Cloud - with DevOps and ISO 27001 certifications.

Founded in 2005, OPTI has a team of senior analysts and programmers, is a HubSpot Solution Partner, Google Cloud Partner and certified in other technological stacks.

CERTIFICATIONS



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