

# BoE Communication and Market Uncertainty

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Quantifying How Words Move Markets (1997 – 2022)

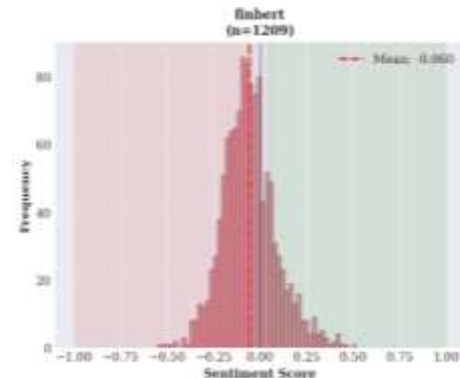
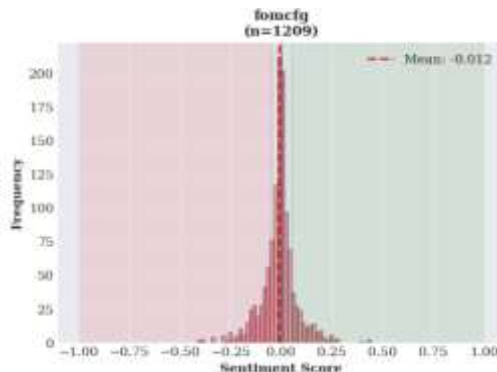
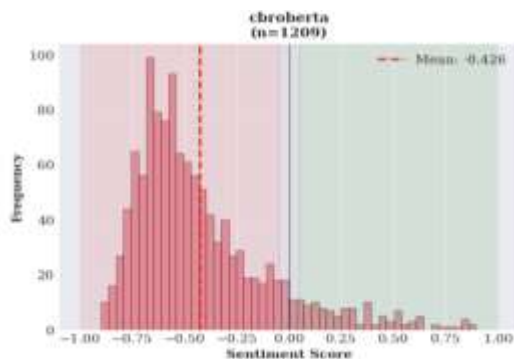
# Research Question

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**Can the Bank's communication tone  
influence how markets behave?**

**Scope:** 25 years • 1,200+ speeches • 3 sentiment models • 5 market indicators.

# Finding the right voice :The Distribution Problem



Model

Tone Bias

Verdict

**CB-RoBERTa**

87 % negative → too pessimistic

✗ Over-reacts to neutral policy language

**FOMC-RoBERTa**

Near-zero mean → neutral

⚙ Useful for stance (hawk / dove)

**FinBERT**

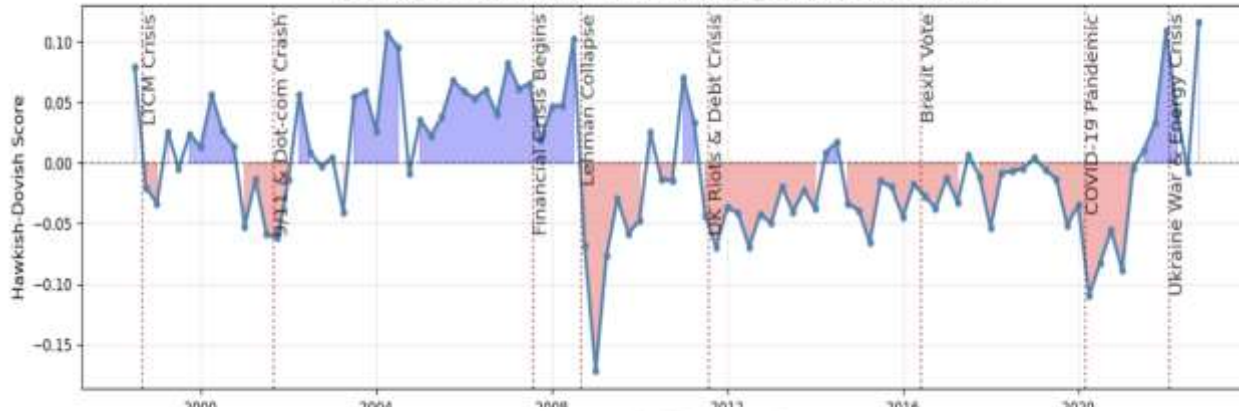
Balanced, interprets prudence not fear

✓ Best for sentiment tracking

**Decision:** We tested five models — **FINBERT** captured the banks naturally **CAUTIOUS TONE**

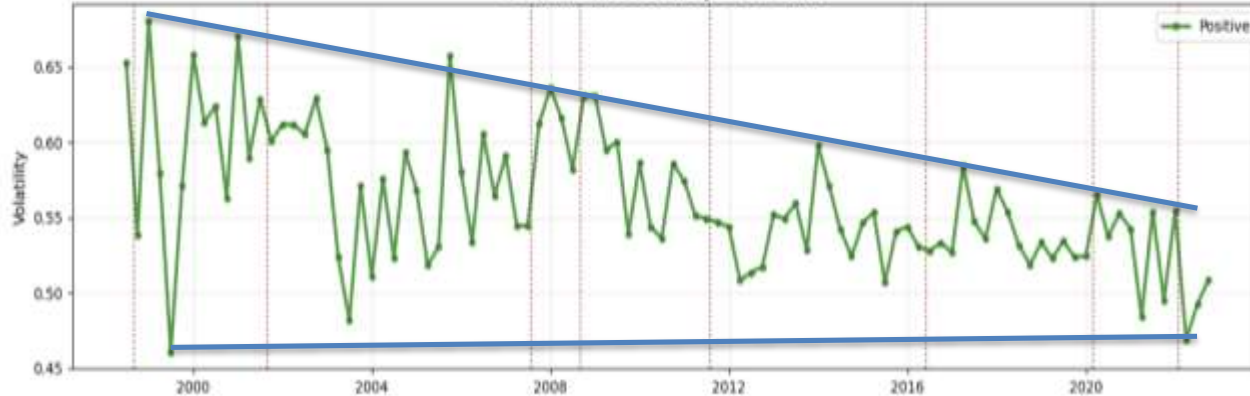
# How the Bank's Tone Evolved — From Reactive to Controlled.

Hawkish-Dovish Over Time with Major Economic Events

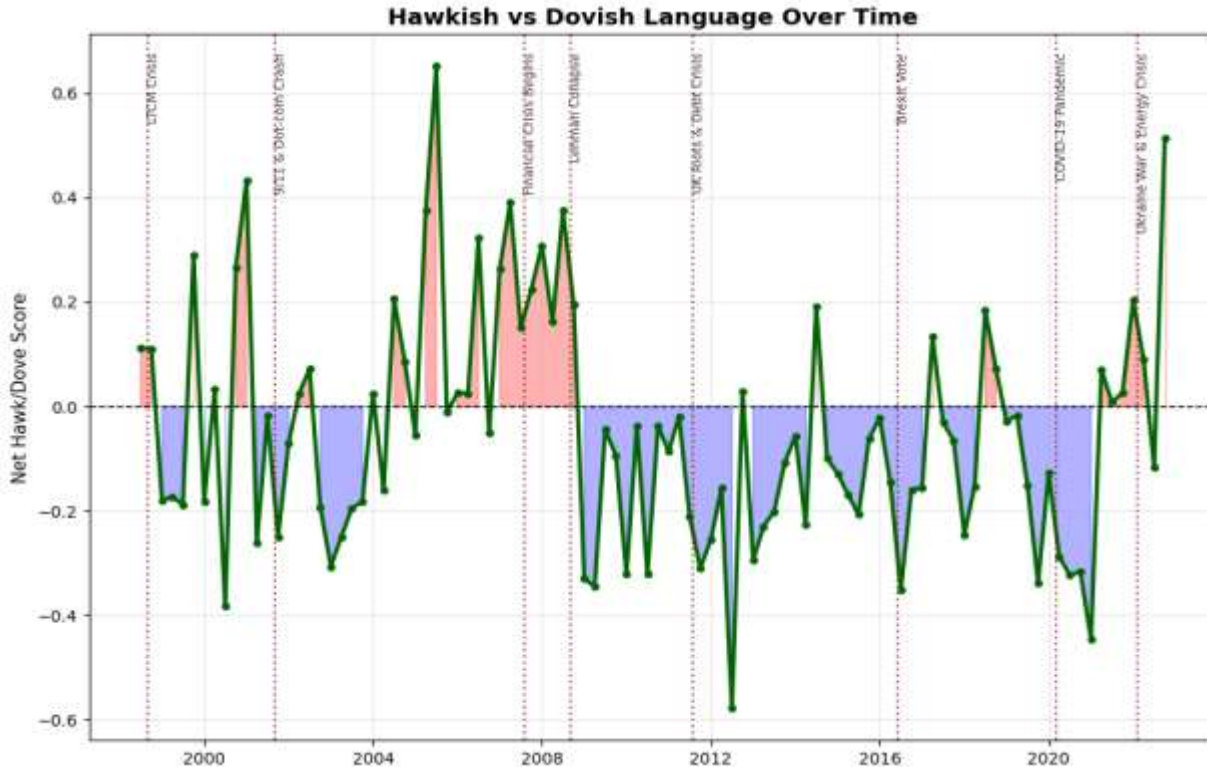


Sentiment volatility halved after 2008, showing the BoE became more deliberate in tone.

Sentiment Volatility Over Time



# How the Bank's Tone Mirrors the Economic Cycle



## 💡 Key Takeaways

**Hawkish = tightening & crisis control.**

Seen in 2006-07 (pre-GFC) and 2021-22 (energy shock).

**Dovish = recession & recovery support.**

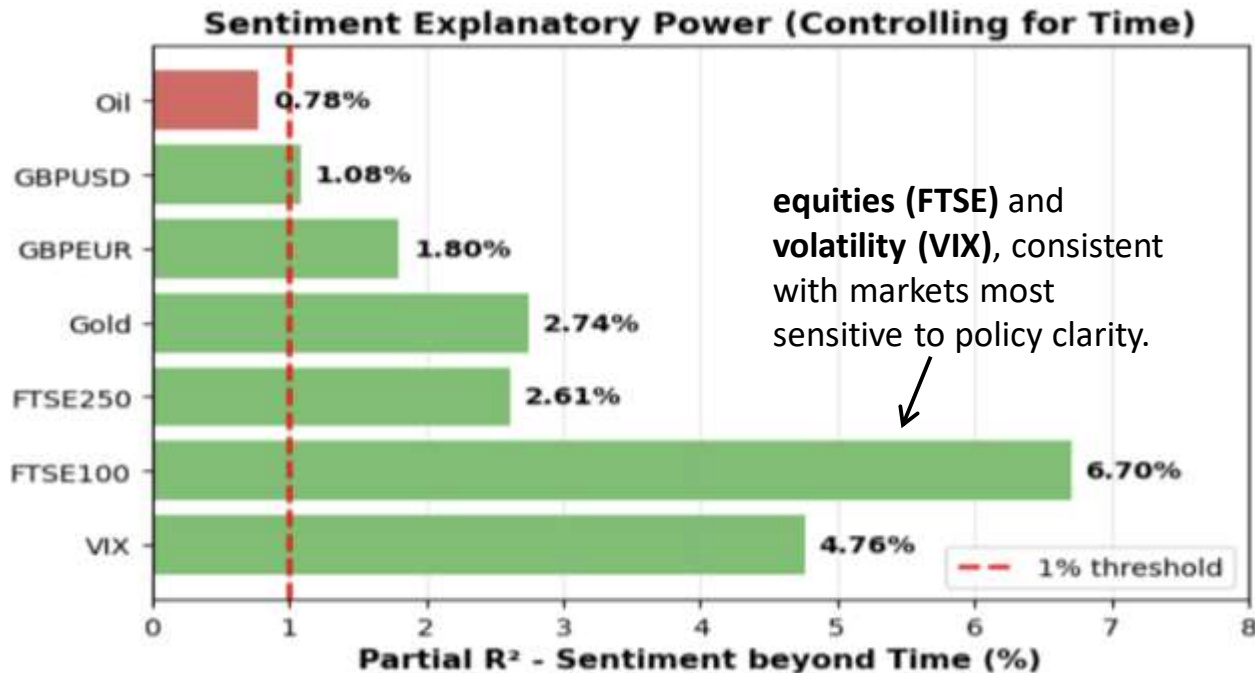
Seen post-2008 and during COVID-19.

**Post-2012:** tone swings narrow → *more predictable & disciplined communication.*

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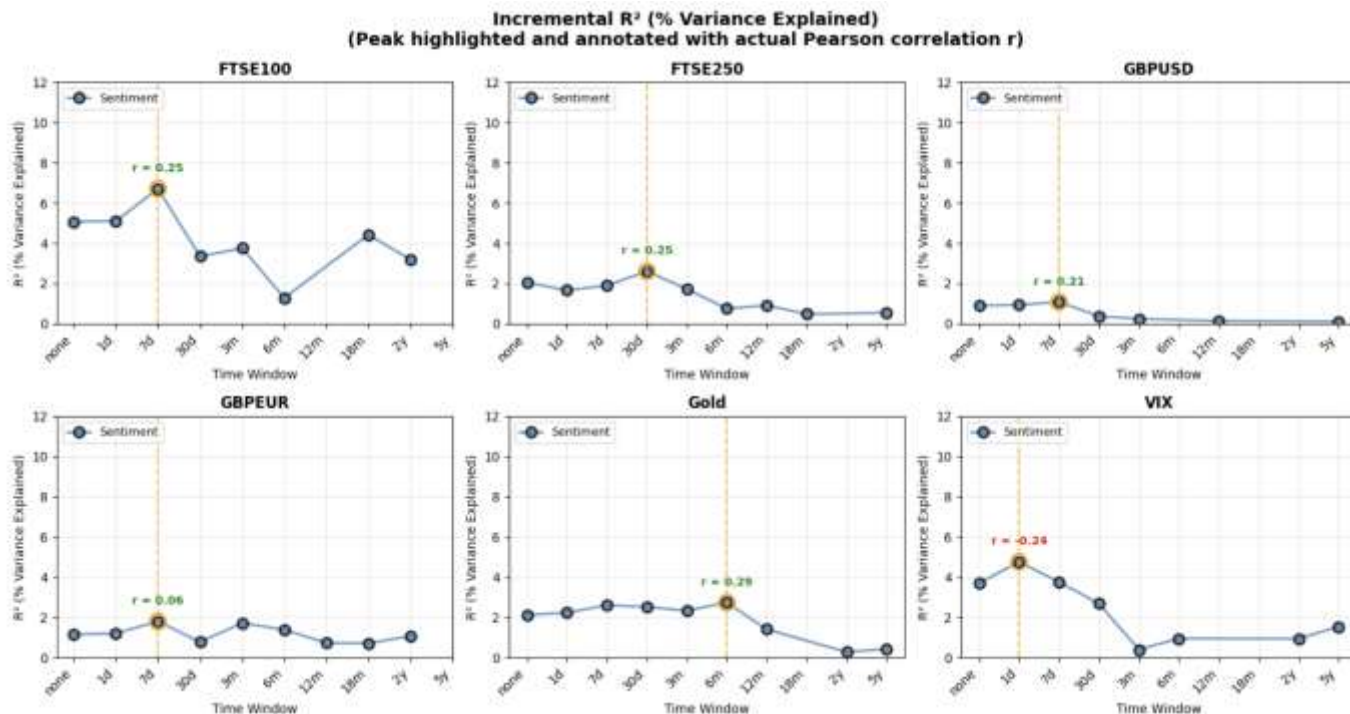
## **ECONOMIC MARKERS AND SENTIMENT**

# Sentiment shapes perception more than price



**Key takeaway: BoE communication influences sentiment, not markets directly — its tone anchors expectations but rarely drives price on its own.**

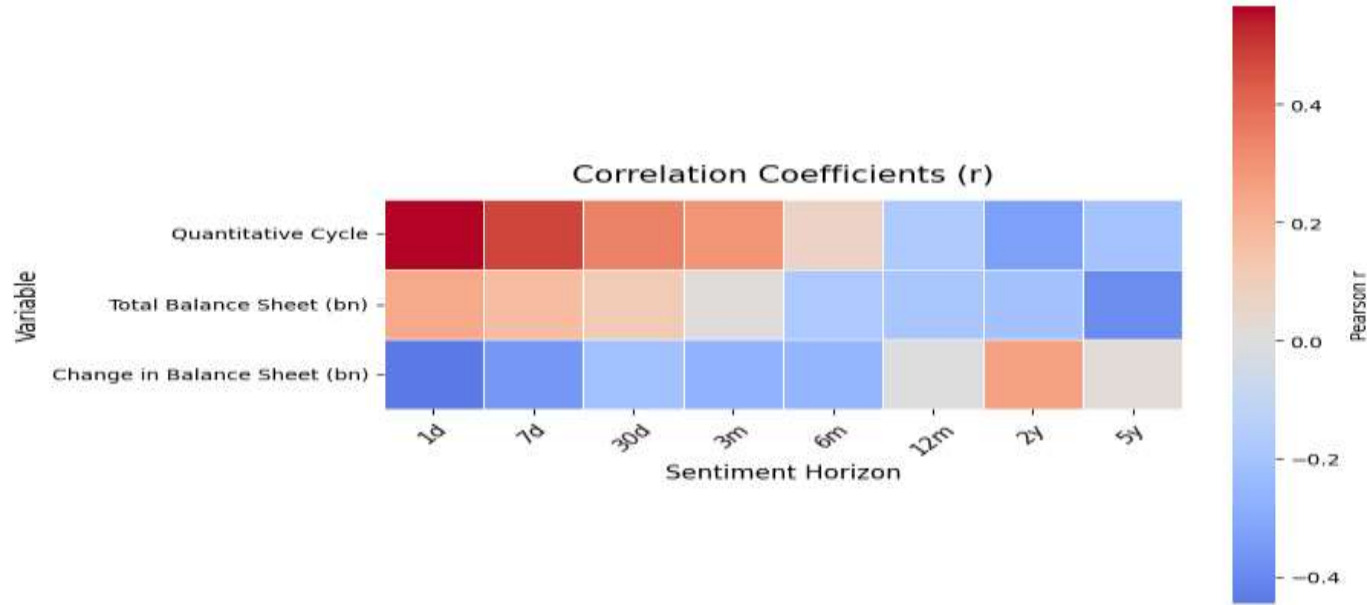
# Market reactions peak within 1–4 weeks of speeches



Key takeaway : Across all markets, sentiment has strongest predictive power within 7–30 days — then fades.



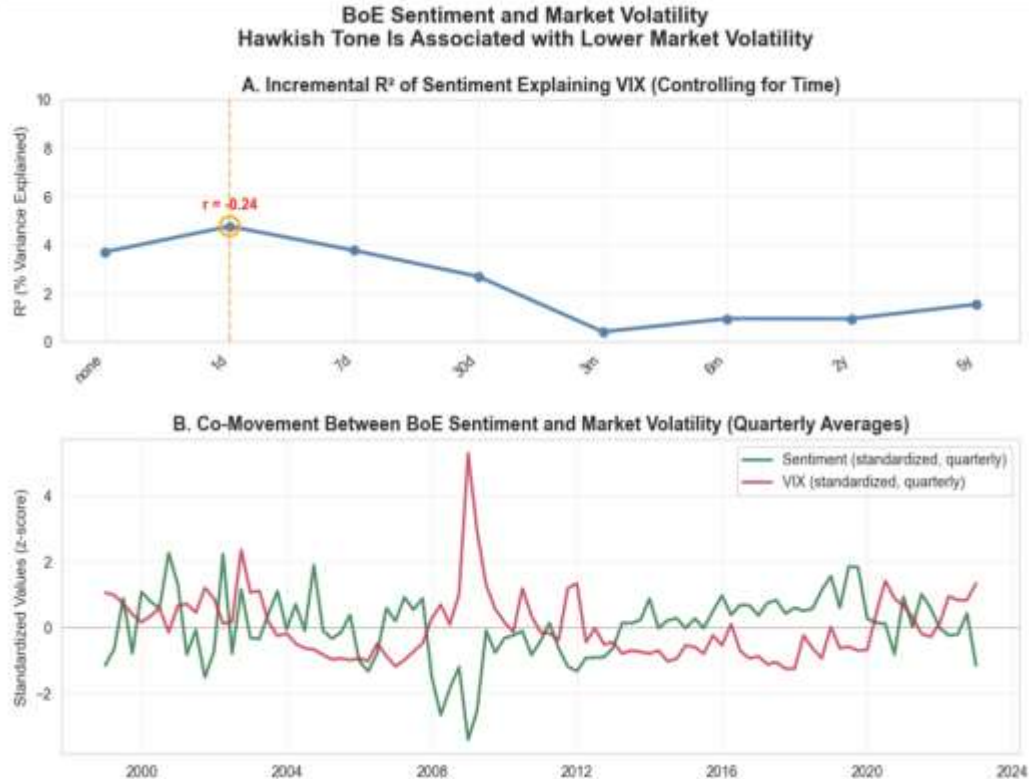
## Markets absorb QE/QT signals quickly, then look ahead



QE/QT influences sentiment *briefly and predictably* — the signal is fast-moving and largely front-loaded.

Beyond the first quarter, investors focus on forward guidance, not previous balance-sheet levels.

# Clear, hawkish tone reduces market uncertainty

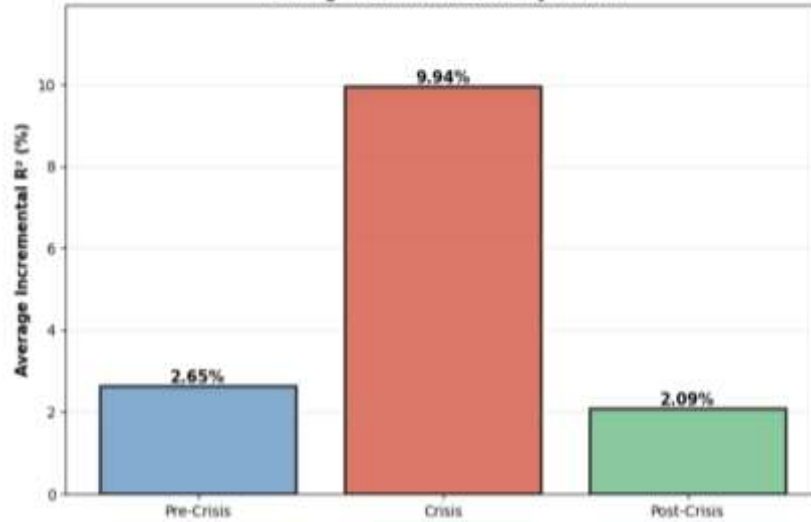


When the Bank speaks ***clearly*** and ***firmly HAWKISH***, the market relaxes — uncertainty falls.

But when the Bank sounds *unsure* or *change policy rapidly*, volatility spikes almost immediately.

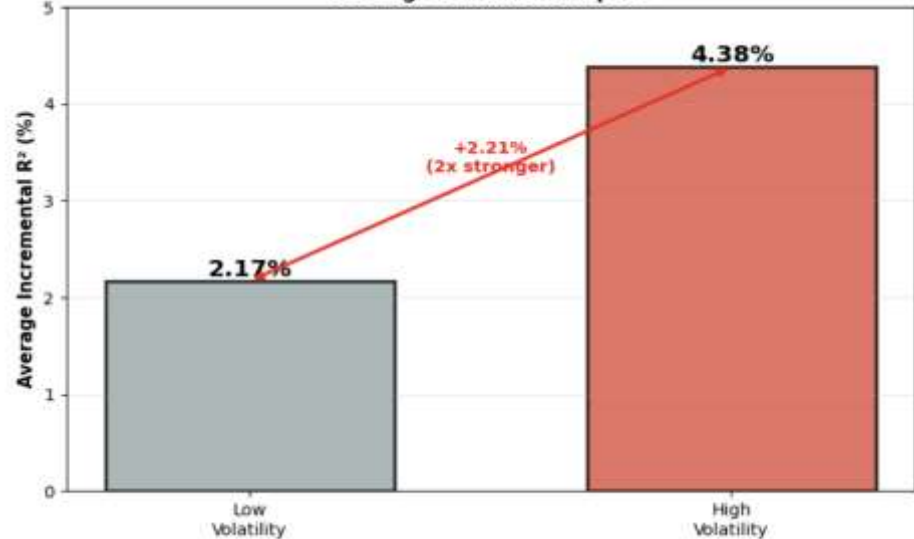
# In turbulent times, tone *is* policy

Average Sentiment Effect by Period



The market responds best to sentiment in a crisis

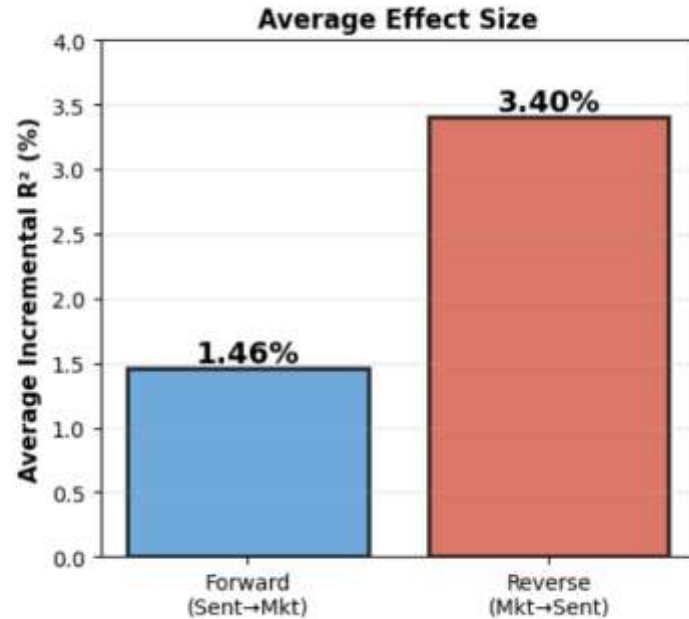
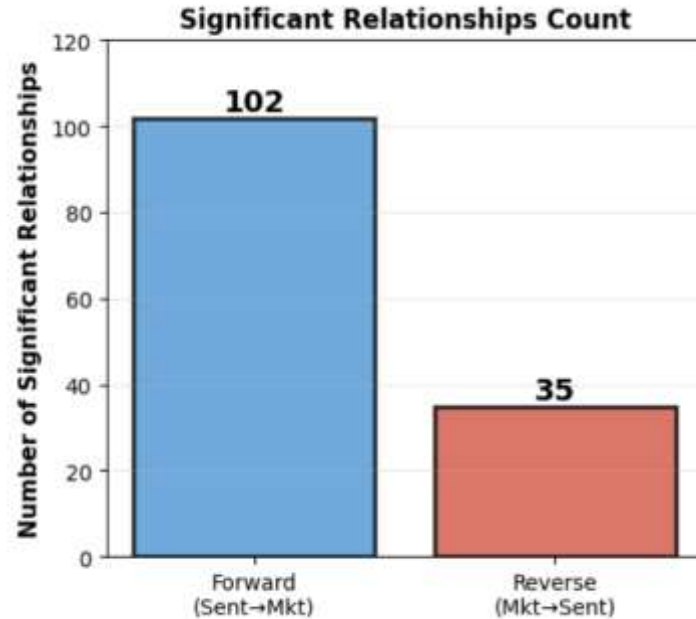
Average Sentiment Impact



Sentiment has 2x more impact with mixed messages

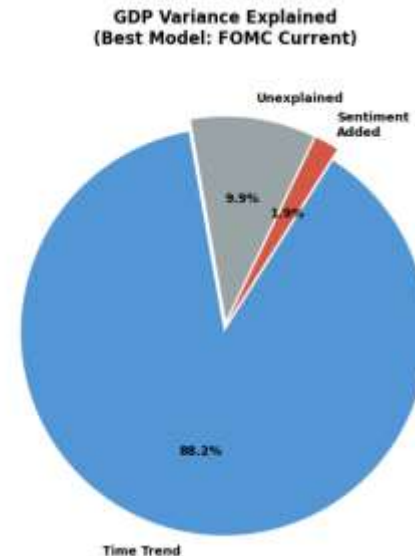
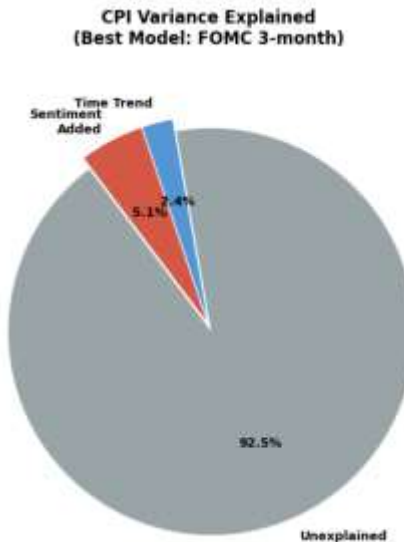
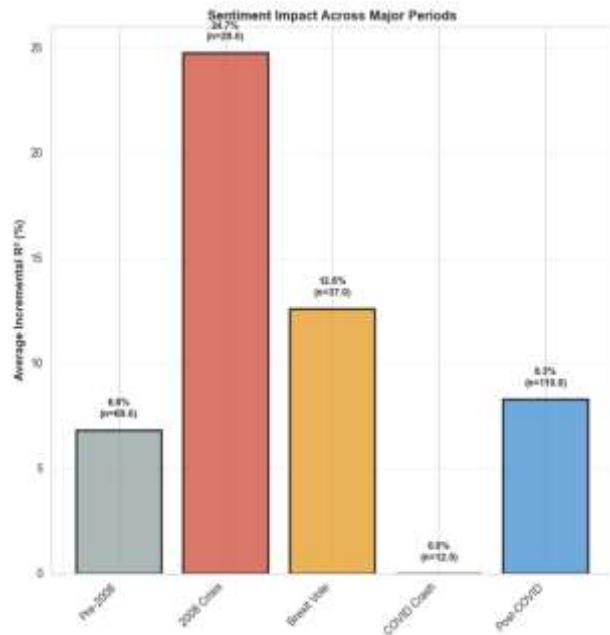
# Sentiment moves markets first, but markets shape sentiment deeper

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The Bank sets the tone, but the market sets the mood.

# Sentiment shapes expectations, not economics



- Strongest sentiment impact during financial crises — tone matters most when stability is at risk.
- BoE communication explains **inflation psychology (CPI)** more than **real activity (GDP)**.

The Bank's words move expectations, not output.

# Where do we go from here ?

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## 🔍 Key Reflection:

We've seen that **language isn't neutral** — it shapes expectations, stabilises markets, and signals intent.

**Tone has become policy.**

But as the financial world evolves, *so does the voice that guides it.*

## 🚀 Next Phase:

As AI and digital finance rewrite how information spreads, the mechanics of trust and authority are shifting.

The next stage of this journey moves from macro to micro — zooming in on AI, crypto, and key policy moments to see how language moves markets in real time.

When machines speak for markets...  
who sets the tone?