



# The Evolution of Expert Guided Sentiment Analysis

William D. MacMillan, Ph.D.

Evan A. Schnidman, Ph.D.

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# Built for Amazon Reviews

- Sentiment Analysis
  - Download Word Dictionaries
  - Good - Bad Buzz
  - ????
  - Profit





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Inaccurate in more nuanced communications



# Built for Amazon Reviews

- ML Classifiers
  - Train Classifier
  - Project onto new documents
  - Deep requirements to generate findings.





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Need many, many training documents, and authoritative scoring.



# Detailed, Nuanced Communications

- Not many solutions
  - Not enough documents (ML)
  - Dictionaries need rebuilding (SA)



How do you quantitatively analyze high value documents?





## Including Expertise in Practice

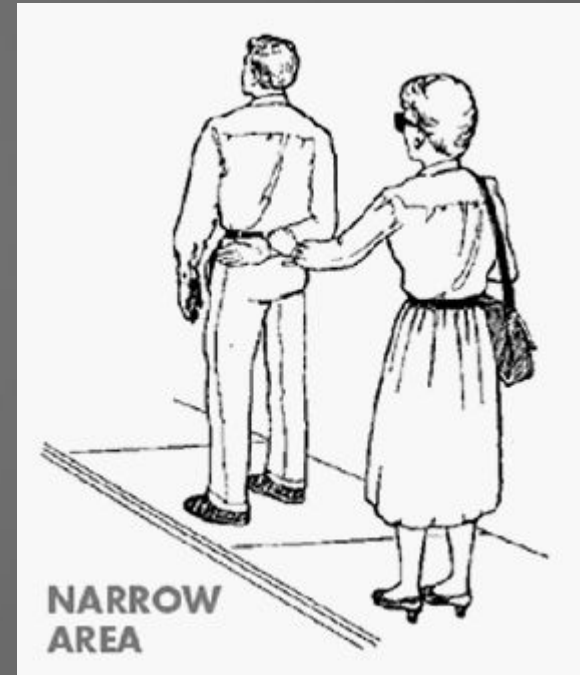
- Expert Guided Sentiment Analysis
- Quantitative Central Banking Watching
- Earnings Call Analysis





# How we do what we do

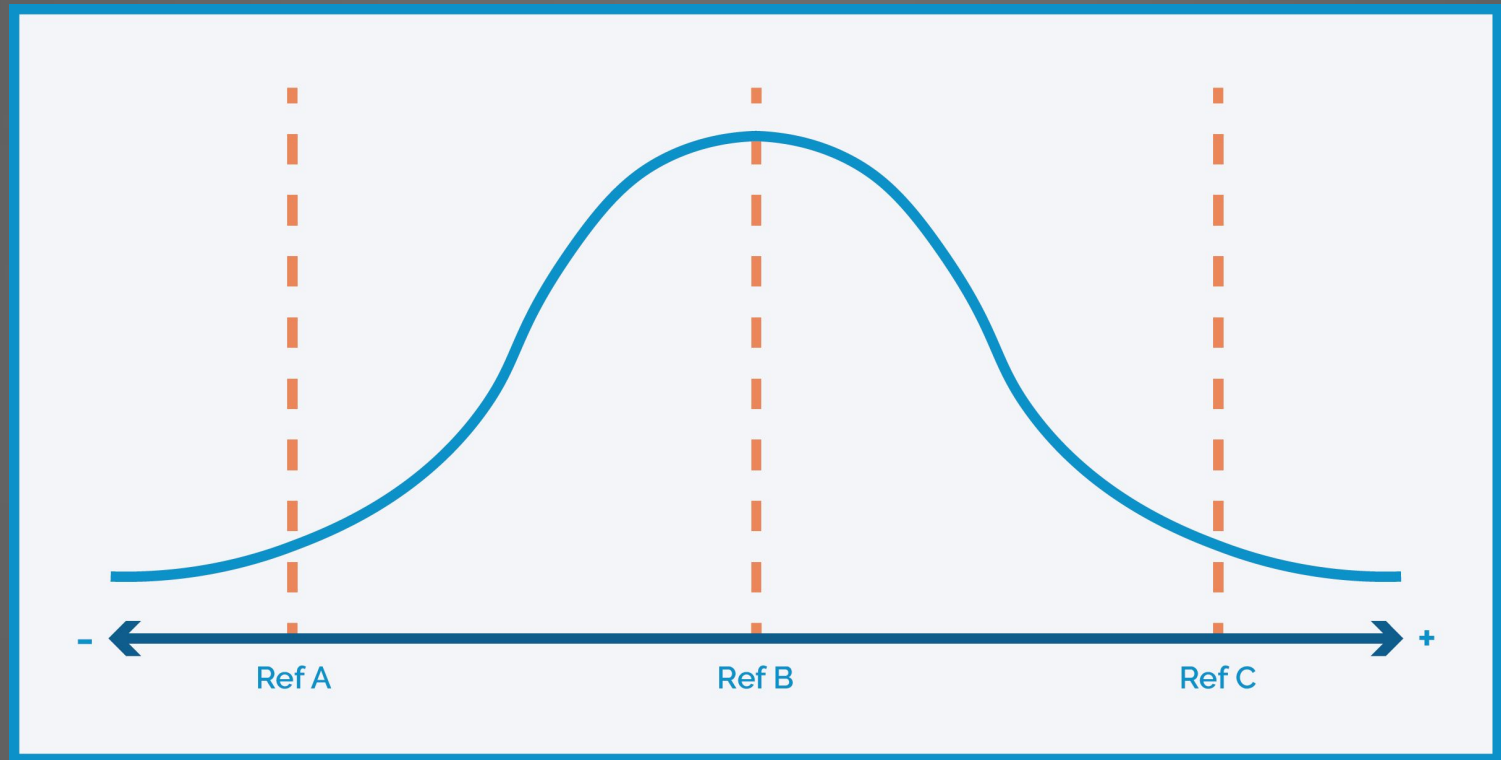
- Expert Guided Sentiment Analysis
  - Define relevant dimension
  - Documents are scored from effects
  - Effects of language vary over time







# How we do what we do



Word usage determines location



# Traditional Fed Watching

The Briefcase Watch



Not Much Changed





## Experts in Fed Speak

- Experts are biased and fail to be comprehensive
- Simple text analysis dictionaries don't work for Fed Speak and other complex language
- Modest v. Moderate





# Experts in Fed Speak

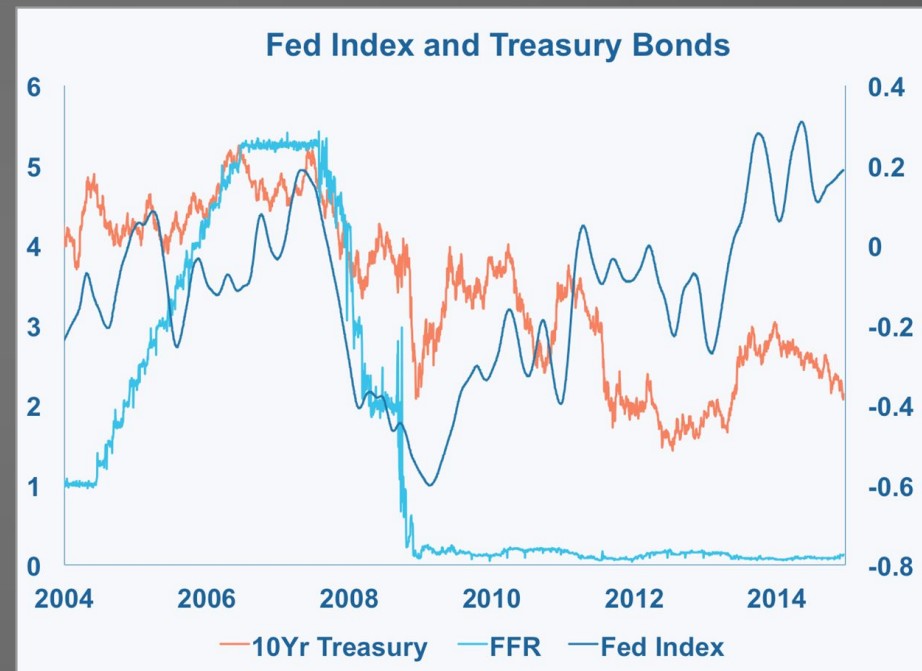
- Expertise and impartial metrics allow scaling based on whole documents
- Scores Reflect Qualitative Understanding





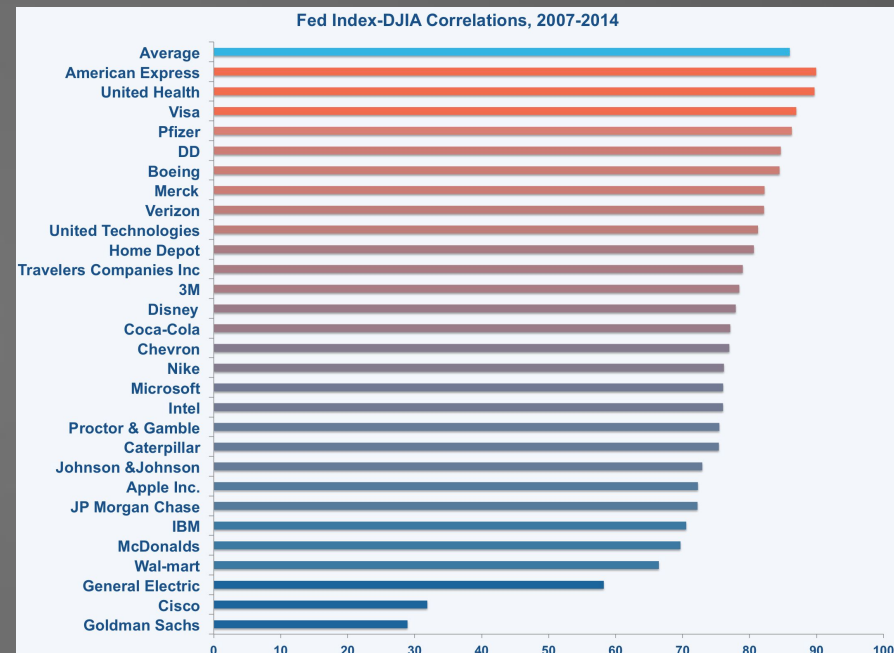
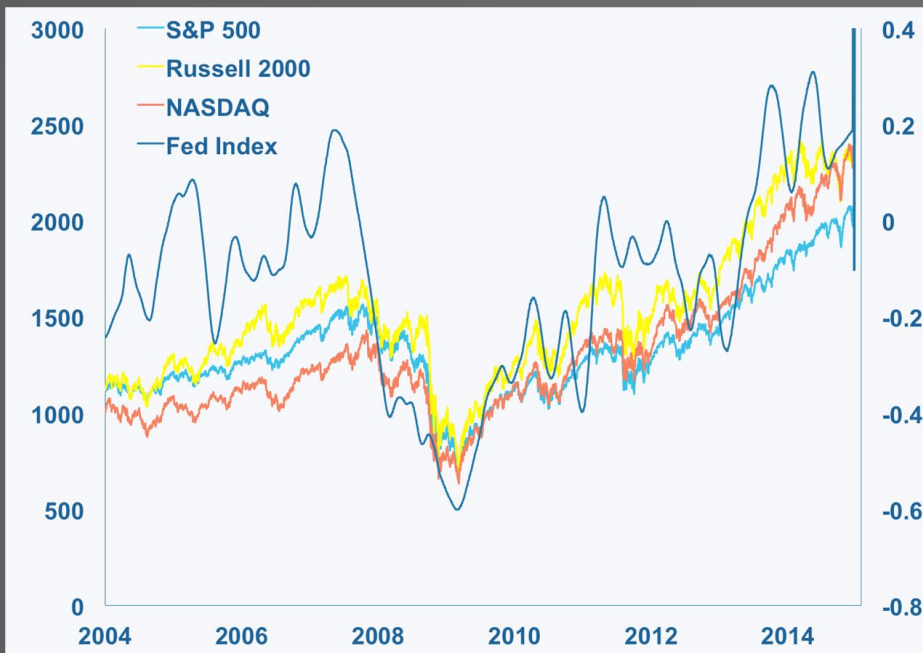
# Experts in Fed Speak

- Resulting Data:
  - Fast
  - Unbiased
  - Quantitative
- Uses:
  - Eliminate post-hoc hedging on CB policy
  - Forecast based on established correlations
  - Add as a signal in multifactor model





# Equity Markets







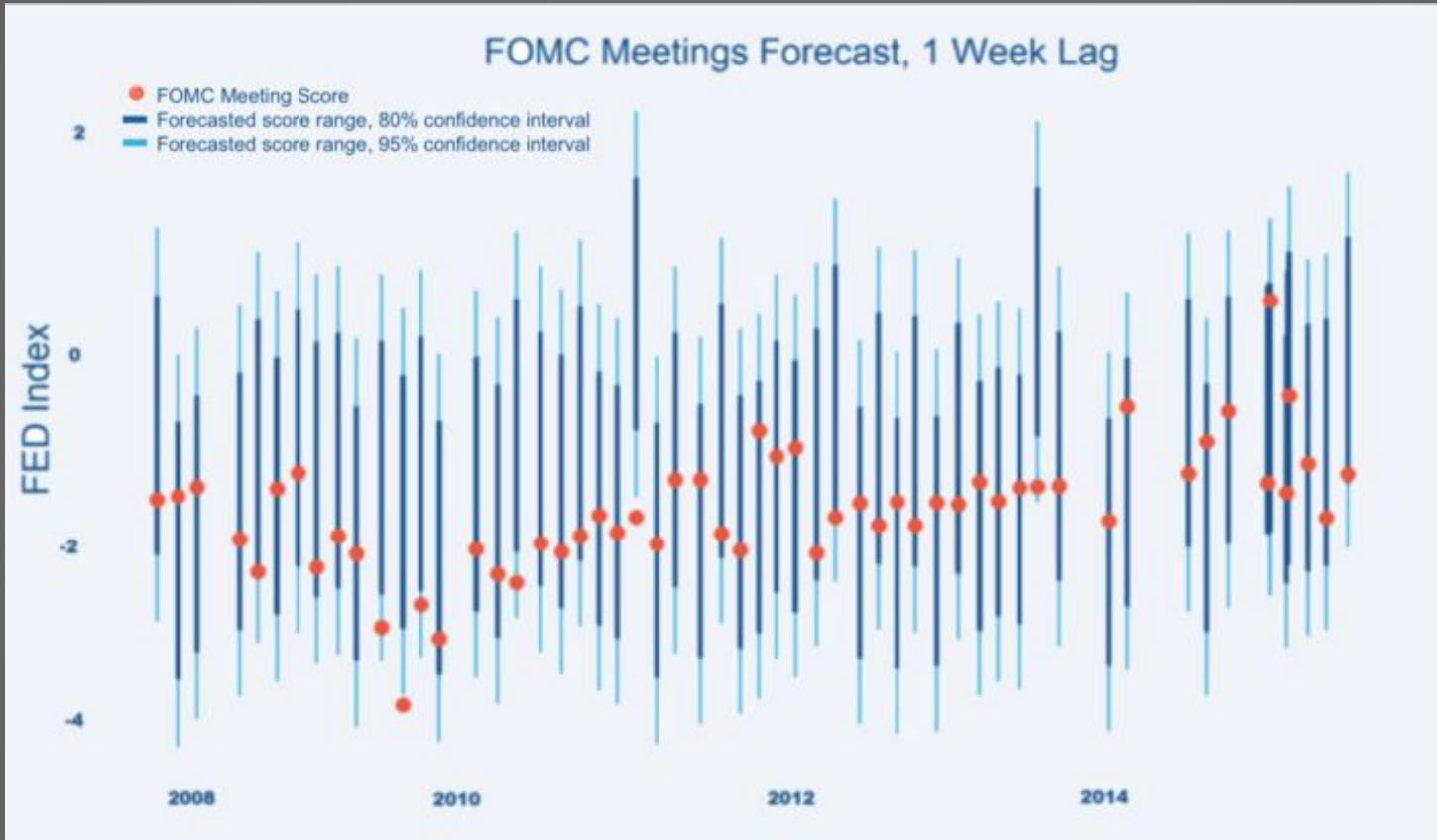
# Equity Market Simulated Portfolio







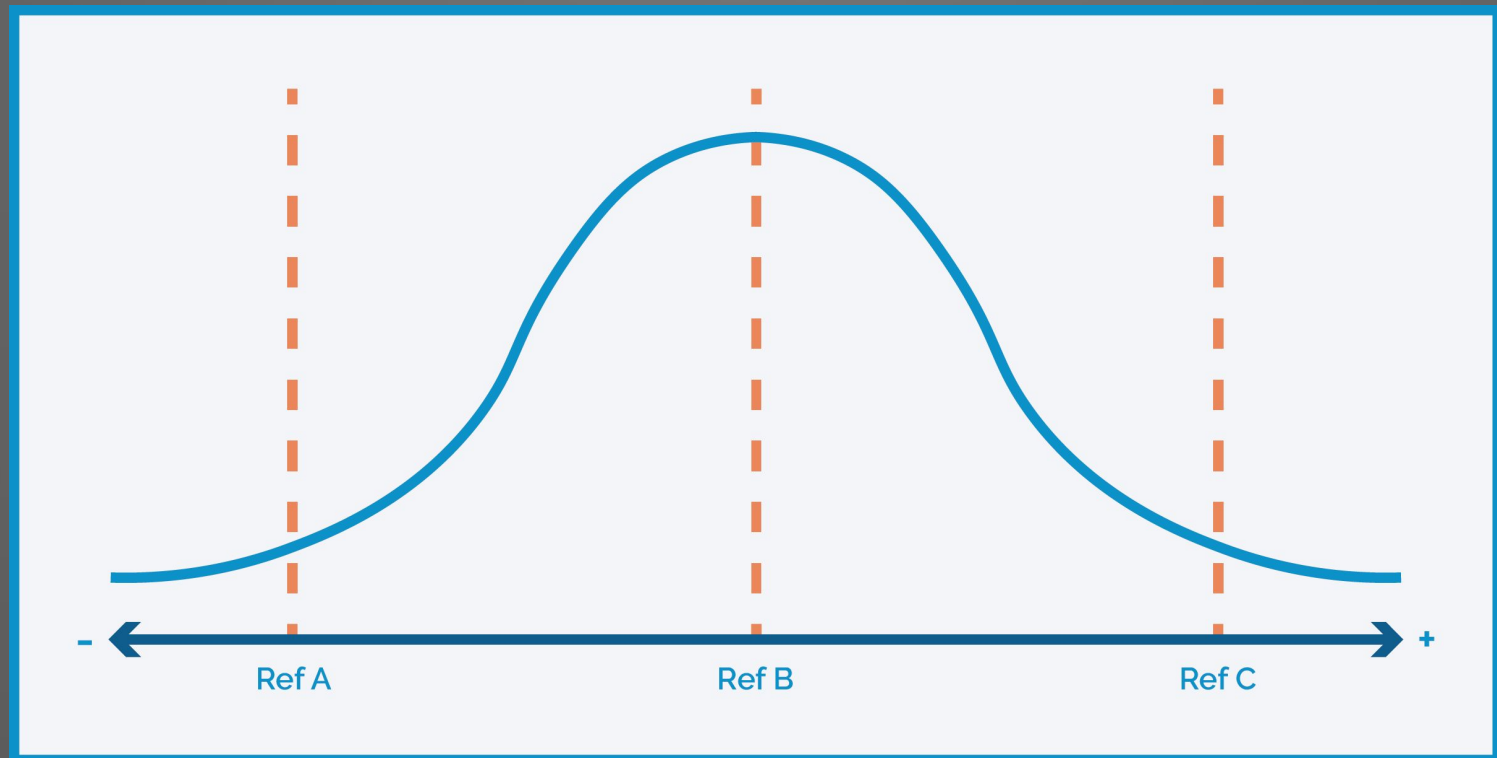
# Leading Indicator





# Earnings Call Analysis

- Human systems burdensome
- Relevant markets easy to define
- Can scale to stock price changes





# Automatic Document Scaling

- Stock Price Relevant
  - Dimension is % Change
  - Reference docs selected by impact
  - Intra/interday change in price





# Automatic Document Scaling

## CarMax and Earnings Call Scores





## Takeaways

- Stock NLP/text analysis deficient
- Create models to fit the application
- Improved models increases applicability



Evan A. Schnidman, Ph.D.  
evan@prattle.co

William D. MacMillan, Ph.D.  
bill@prattle.co

web: [prattle.co](http://prattle.co)  
twitter: @prattledata