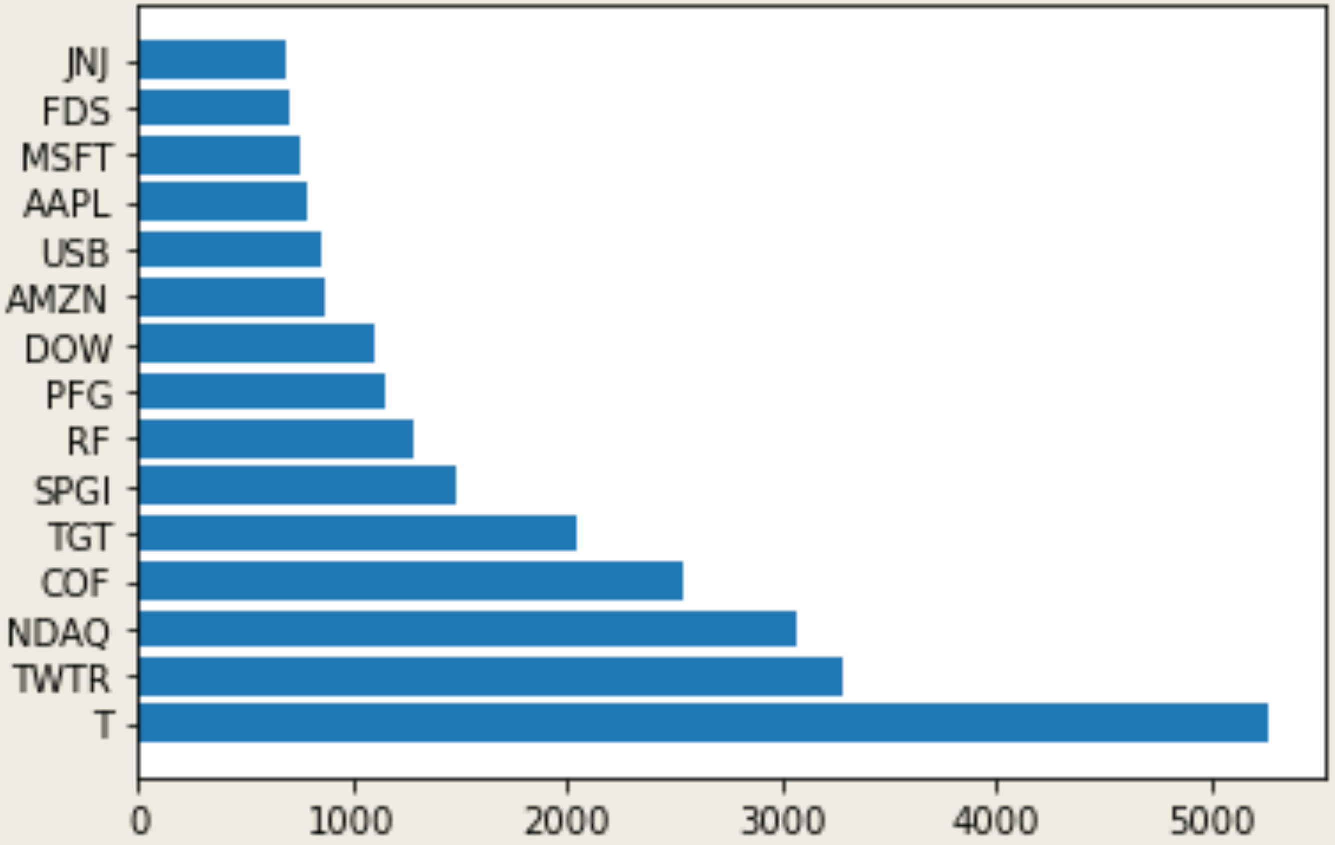
Deriving Alpha from News: GDELT

Ty Painter
Capstone Update #9
4/27/22

Data Processing

- Weekends news → assigned to Friday
- Holiday news → assigned to previous market day
- No news → Lookback period
  - *70%: 1 day prior*
  - *20%: 2 days prior*
  - *10: 3 days prior*

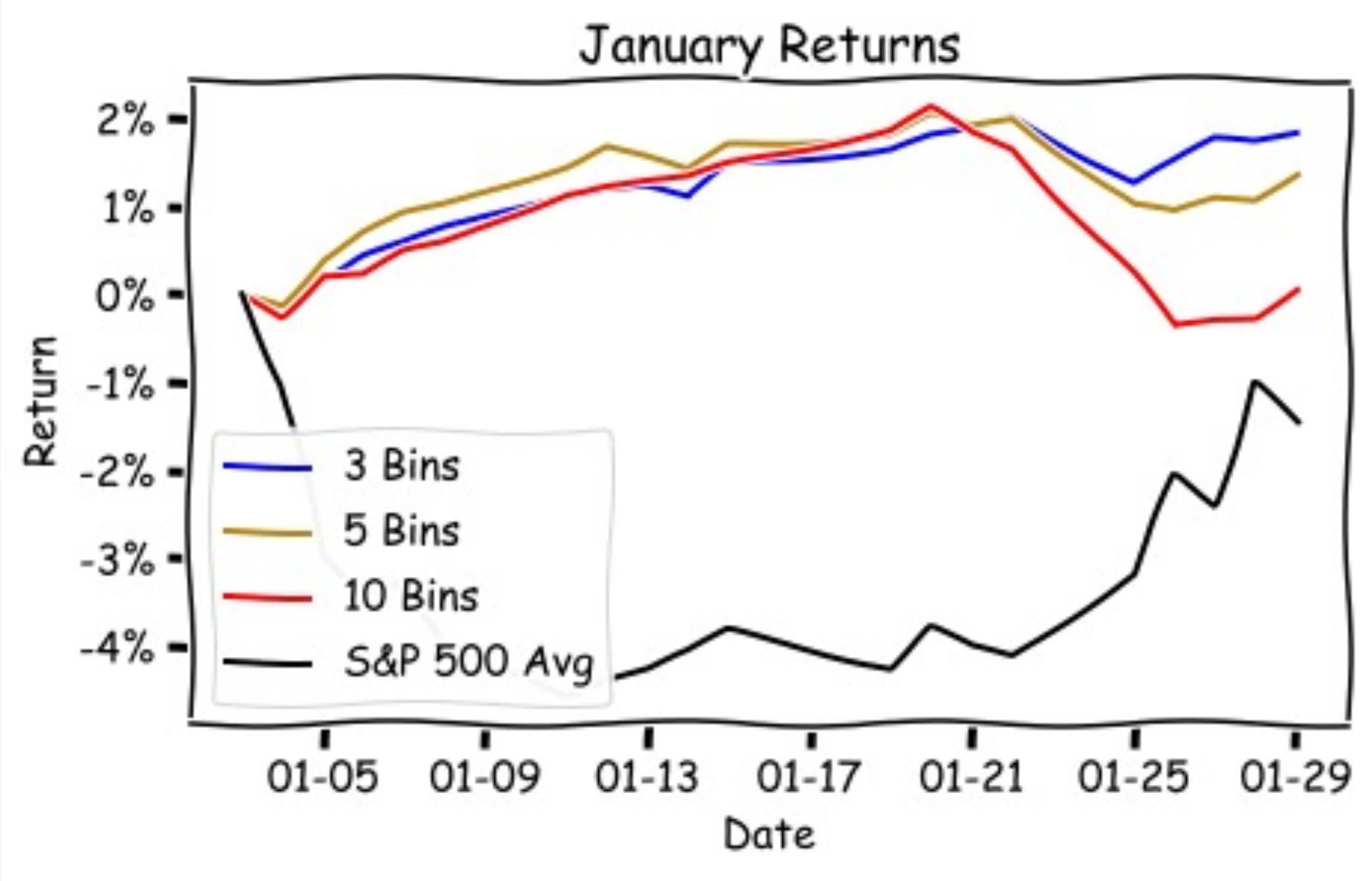


Portfolio Construction

- Long-short portfolio
  - *3 bins (338 total stocks)*
  - *5 bins (202 total stocks)*
  - *10 bins (100 total stocks)*
- Ordered by aggregated feature score
  - *Multiplied negative scores by -1*
  - *Scaled all sentiment scores, read scores, and volume count*
  - *Aggregate mean*

Performance

Portfolio	Raw Return	Relative Return
S&P 500 Avg	-1.48%	---------------
3 Bins	+1.85%	+3.33%
5 Bins	+1.38%	+2.86%
10 Bins	+0.07%	+1.55%



Next Steps

- February and March are running on EC2
  - *Q1 should be finished by next Wednesday*
- Construct additional portfolios
  - *Order by net sentiment score*
  - *Factor weighted by % of absolute sum of scores*
- Finish final paper & presentation
- Organize GitHub