

## Predicting FOMC Actions using ML and NLP

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**Model1: FOMC Decision  $D_t$  based on lagged document text**

$$E[D_t | \text{Statements}_{t-i}, \text{Minutes}_{t-j}, \text{Speeches}_{t-k}, \text{N-gram}]$$

**Model2: FOMC Decision  $D_t$  based on aggregated lagged document text**

$$E[D_t | \text{AGG}(\text{Statements}_{t-i}, \text{Minutes}_{t-j}, \text{Speeches}_{t-k}), \text{N-gram}]$$

where  $D_t = 1$ , if change to rates,  $D_t = 0$ , if no change.

