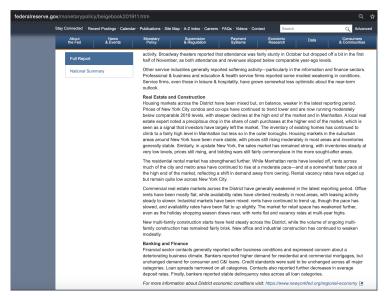
New York New Construction Sentiments

- How developers determine future prices of new construction?
- Leading indicators (Akintoye, Bowen & Hardcastle, 2010):
 - unemployment level
 - construction output
 - industrial production
 - ratio of price to cost indices in manufacturing
- Business Objective: local real estate sentiment index to nowcast the price of future real estate under construction

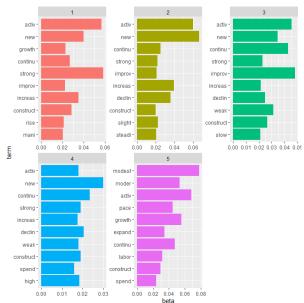
Beige Book



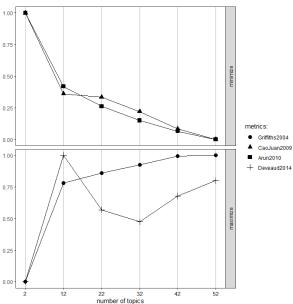
Beige Books

- Written description of economic conditions in retailing, manufacturing, construction, real estate, agriculture and natural resources
- Released 2 weeks before FOMC meeting since June 1983, 8 times a year
- Data Ingestion: fast algorithm to download, converse, clean, process & create corpus for Beige Books
- Stay away from using human scores or dictionary-based methods

5 LDA Topics

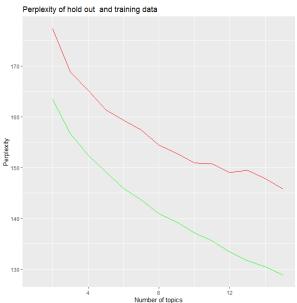


LDA Optimization

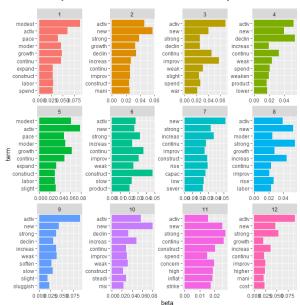


Arun2010

Perplexity for a Number of Topics



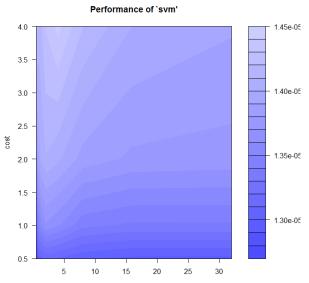
Optimal Number of Topics



Nowcasting

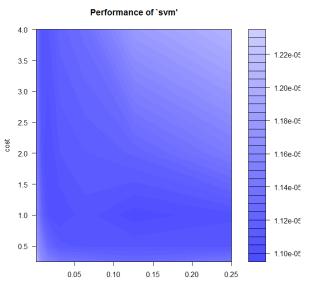
- Supervised learning with SVR
- Backward selection of LDA features
- Compare with linear regression

Grid Search Cross Validation (full set of LDA features)



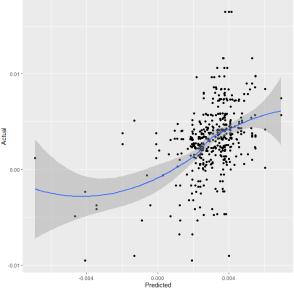
gamma

Grid Search Cross Validation (backward selected set)

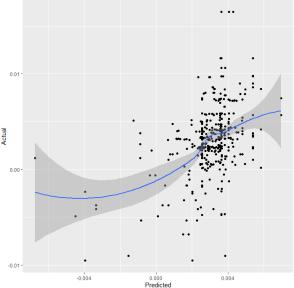


gamma

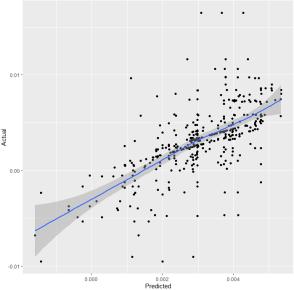
Goodness of fit: Linear model for full LDA set



Goodness of fit: Linear model for best LDA subset



Goodness of fit: SVR for full LDA set



Goodness of fit: SVR for best LDA subset

