

Which bills are lobbied? Predicting and interpreting lobbying activity in the US

Ivan Slobozhan, Institute of Computer Science, University of Tartu

Peter Ormosi, Centre for Competition Policy & Norwich Business School, University of East Anglia

Rajesh Sharma, Institute of Computer Science, University of Tartu

KEYWORDS: lobbying, rent seeking, text classification, US bills

BACKGROUND

- In an attempt to contribute to the empirical literature on measuring the propensity of rent seeking, we looked at ways to gauge whether a piece of legislation was lobbied or not. For this, we start on the premise that lobbying changes the text of legislation in a way that makes them discernible from non-lobbied legislation. Take rent seeking for example. When businesses compete they earn normal profit as a result of the competitive process in the market. To increase profits, businesses will have to either collude, or monopolise the market, both of which would be blocked by antitrust agencies. The easiest way for companies to achieve super-normal profit is by lobbying governments to introduce laws and regulations that ensure that they are sheltered from competition. The economics literature calls this phenomenon rent seeking, referring to the objective of lobbying businesses to appropriate this. Rent seeking is hugely harmful for society, firstly because large amounts of resources are spent on a non-productive activity (lobbying), but also because the resulting markets are less competitive, meaning higher prices and therefore reduced welfare for consumers. We posit that if these legislative provisions, offering preferential treatment to certain interest groups, are similar across the various pieces of legislation, then the text of lobbied legislation should be discernible from non-lobbied ones.

METHODOLOGY

- Using standard natural language processing (NLP) tools, we train a number of different models to classify bills into lobbied and non-lobbied groups. In particular, we used logistic regression, random forest and neural networks models (CNN and LSTM) and text embedding representations (BOW, TF-IDF, GloVe, Law2Vec). We achieve above 0.85 AUC and accuracy of 78%. Moreover, we show that lobbying intensity improves model performance, up to 0.95 AUC and 88% of accuracy implying that intensively lobbied bills are more different from non-lobbied ones (following our assumption that these are more likely to be subject to rent-seeking).
- We also propose a method that could be used for unlabelled data (legislative bills, where we do not have any information about lobbying). Using those bills where we found records of lobbying as ground truth, we run a number of iterations, in which these are compared with different samples of the unlabelled data. Through this cross-validation we reinforce our finding of the accuracy of our model, but it also allows us to establish the probability of each unlabelled bill having been lobbied.

May 2020

KEY FINDINGS

- Our main finding is that we could train our model with relatively small data to perform well.
- We also did some feature analysis. For example looking at bills on Foreign Trade and International Finance, we find features like preference, protection, credit, subsidy, and extension among the most important positive features (indicating higher probability of lobbying). This is not surprising, these terms are typically associated with various trade barriers, one of the prime manifestations of successful rent seeking lobbying by US-based producers. Other features, such as combination and partnership are signs of export/import partnership, which are often the subject of trade-related rent seeking activities.
- We also show that there is a considerably large number of previously unlabelled US bills where our predictions suggest that some lobbying activity took place. This is more likely to be in certain areas, such as energy and healthcare.

POLICY ISSUES

- We believe our method could potentially contribute to the enforcement of the US Lobbying Disclosure Act (LDA) by indicating the bills that were likely to have been affected by lobbying but were not filed as such.
- It is important, that this should not be treated as hard evidence of unreported lobbying activity. But a method like ours could facilitate the enforcement of the LDA but flagging areas and subjects of potential concern.

SUGGESTED CITATION

Slobozhan, I., Ormosi, P., & Sharma, R. (2020). Which bills are lobbied? Predicting and interpreting lobbying activity in the US. CCP Working Paper 20-03

The Centre for Competition Policy (CCP), at the University of East Anglia, undertakes competition policy research, incorporating economic, legal, management and political science perspectives, that has real-world policy relevance without compromising academic rigour.

More information about CCP and its research is available from [our website](#).

To discuss this policy brief, [email us here](#).

ABOUT THE AUTHOR

Ivan Slobozhan is Research Student at the Institute of Computer Science, University of Tartu, Estonia

Peter Ormosi is Associate Professor of Competition Economics at the Norwich Business School and member of the Centre for Competition Policy at the University of East Anglia

Rajesh Sharma is Senior Researcher, Software Engineering & Information Systems Group, Institute of Computer Science, University of Tartu, Estonia