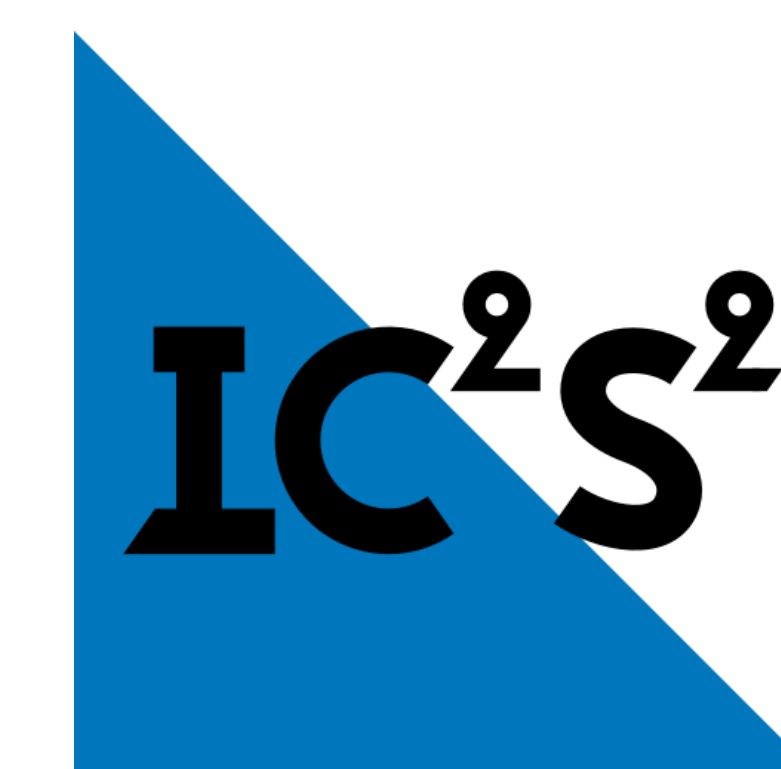# How State-Controlled Media in Authoritarian Settings Affect News Content: Text as Data Analysis

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Research problem

Autocrats use media to promote ideas that assist them in sustaining the status quo [1]. There is a growing body of research dedicated to detecting hard strategies of information manipulation, like distortion and "fake news" [2, 3]. Large pro-government bias may lead to fewer media consumption, so autocrats tend to use soft information manipulation tactics that are computationally costly to detect. During such regime threatening conditions, as economic hardships, autocrats may directly manage information flow in state-controlled media. However, we are not fully aware of the specific information manipulation strategies used by the autocrat.

I assumed that during economic decline, state-owned media tend to increase the coverage of **international news, nationalistic content and news that affirm regime's governing ability** to redirect attention from sensitive topics.

Data

Channel One is the most popular and accessed television channel in Russia. Since 2001, a majority of Channel One's shares are owned by the state, and the rest are controlled by a Kremlin-friendly oligarch and state-owned bank. I collected 400k texts of news reports spanning from April 1999 to October 2020 from a channel's online archive. Additionally, news texts from Russia's only independent television channel TV Rain spanning from 2012 were obtained. To construct a corpus from text collection I applied standard language preprocessing: (a) tokenization; (b) lemmatization; (c) filtering out stopwords.

Following economic indicators were used: (1) daily returns in Russian ruble versus the US dollar exchange rate (RUB/USD); (2) daily returns in the spot price of Brent crude oil; (3) daily returns in the Moscow stock exchange (RTS) obtained from moex.com.
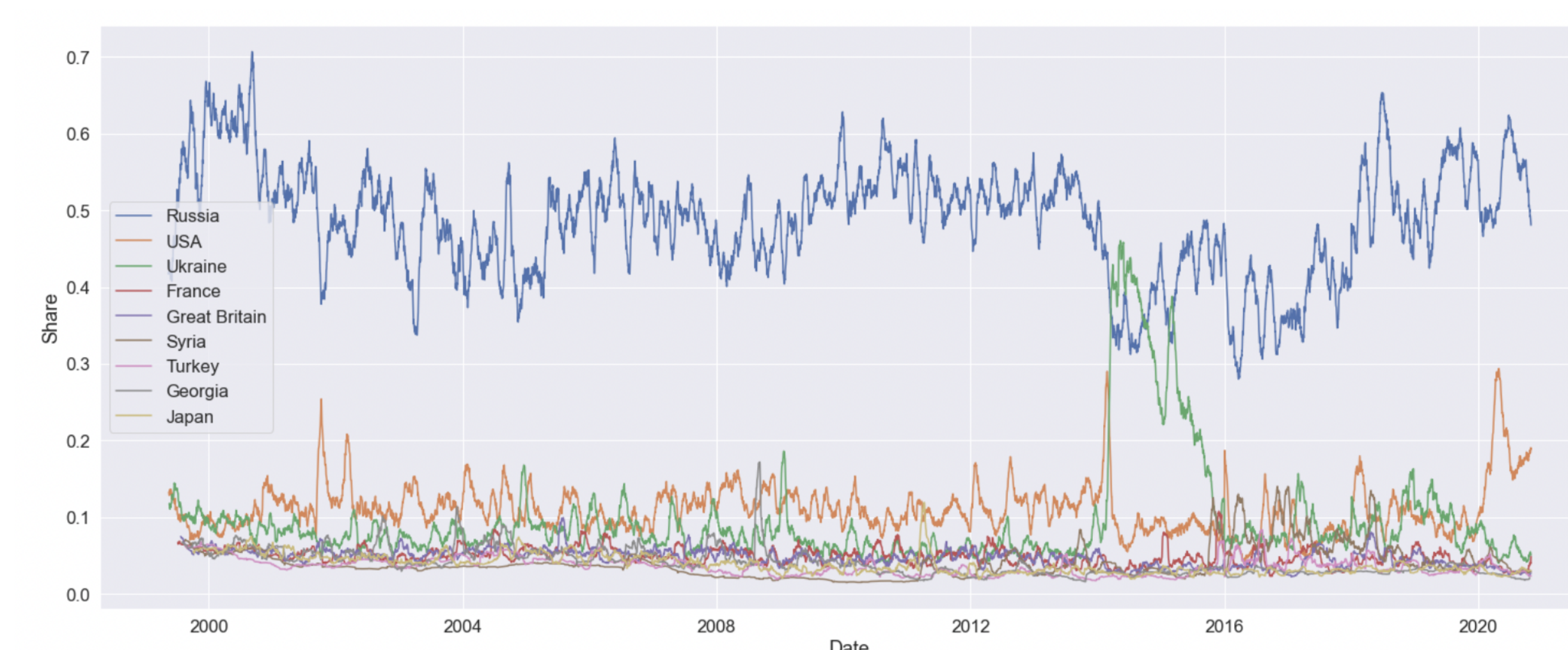
Methods and results

Geographical classification of news

The geographical focus of the news is defined as the location of events or issues covered. I used **Newsmap** – a semi-supervised Bayesian model for geographical document classification.

- An increase in reports of international events in the countries most covered on Channel One is mainly associated with military conflicts.
- Coverage of news about the USA increased in 2003, which may be connected with Iraq War, in 2014, which corresponds to Ukrainian Crisis and in 2020, which corresponds to the presidential election.
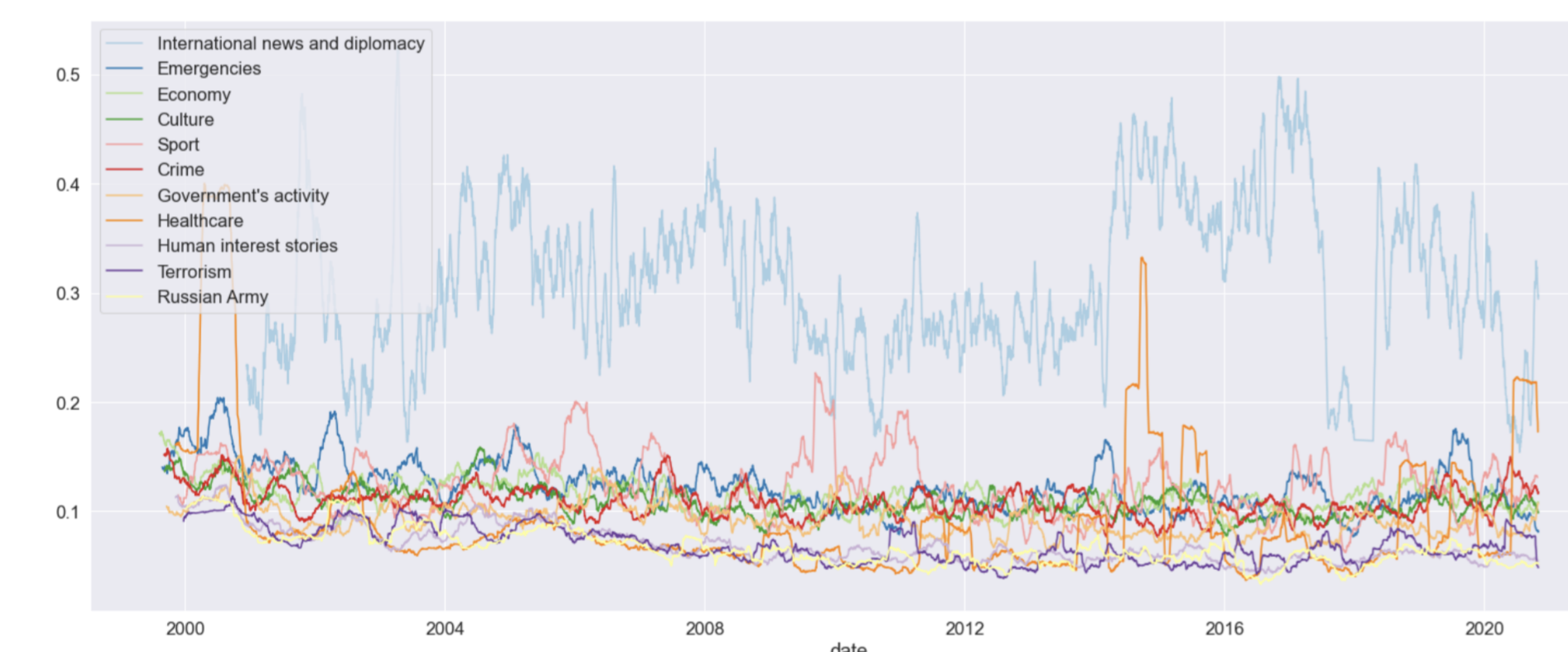
- The share of domestic news in state-controlled and independent media since 2012 is almost the same, and the top covered countries are practically the same, with the exception that Channel One covered news about Ukraine more than TV Rain.
- Channel One increased news coverage both of Ukraine and the USA in 2014, while TV Rain increased only the coverage of Ukraine
- Channel One covers more such western European countries, such as France, United Kingdom, Germany and Belgium. TV Rain covered more events in Belarus and Venezuela.

Topic modelling of news

I estimated multimodal hierarhical ARTM, as it is important to understand how general topics are structured and framed. The selected topics are (1) international news and diplomacy – 19%, (2) Emergencies – 10%, (3) Economy – 7%, (4) Culture – 7%, (5) Sport – 7%, (6) Crime – 7%, (7) Stories that reaffirm the regime's givering abilities – 6%, (8) Transport and traffic police – 5%, (9) Healthcare – 4%, (10) Human interest stores – 4%, (11) Terrorism – 3%, (12) Russian Armed Forces – 3%, (13) The Great Patriotic War – 2%, (14) Science and technologies – 1.5%, (15) Weather – 1.3%, (16) Space – 1.2%, (17) Nature and ecology – 1.2%, (18) Regions – 0.9%, (19) Social sphere – 0.8%, (20) Holidays – 0.8%, (21) Education – 0.6%, (22) Housing – 0.5%, (23) Nationalism – 0.5%, (24) History – 0.4%, (25) Moscow – 0.4%, (26) Agriculture – 0.4%.

Stories that reaffirm the regime's governing abilities include such subtopics, as ministerial meetings, meeting of the president, activities of governors, State Duma and Federal Assembly and legislative projects, presidential orders and other. Stories that promote national values include such subtopics, as common interests of Russians, Russian language and its status in other countries, historical roots of Russia, Russian traditional values

Regression model

I estimated ADL models to test initial hypotheses. The results of these models show the following:

- With increasing of such economic indicators, as RUB/USD exchange rate and oil price, the share of news about international events in general is also increasing.
- News coverage about the U.S. is not connected with economic indicators
- There are a statistically significant negative connections between the daily share of news about the E.U. and oil price and RUB/USD exchange. These estimations are robust when testing on data before and after 2014.
- There is no statistically significant connection between stories that promote national values and economic indicators
- RUB/USD exchange rate and RTSI are positively connected with the daily share of stories that reaffirm the regime's governing abilities,while oil prices are negatively connected with the dependent variable

References

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