Introduction and Problem Statement

The project’s objective is to help the Moelis Activism Advisory team better advise their client companies that are the target of activist campaigns by predicting both the objective and the likelihood of success of an activist campaign.

Models and Results

Based on the temporal nature of the activist campaign, we designed separate models for the activist’s objective, the campaign’s outcome, and finally the campaign’s associated stock return. We use cross validation with time filtrations to ensure no lookahead bias.

Campaign Objective Model

- Objective: Random Forest
- Governance Demand: Random Forest
- Value Demand: XGBoost

Outcome Examples

- campaig objective
- value demand
- governance demand
- Remove Directors
- M&A
- Operation
- proxy campaign result
- board seat acquisition
- Dissident
- Dismissal
- failure
- residual return 2%

Campaign Outcome Model

- Objective: Logistic Regression
- Proxy Campaign Result: XGBoost
- Board Seat Acquisition: Logistic Regression

Outcome Examples

- campaign name: Icahn x Exxon
- campaign date: 2015-01-01
- glass lewis support: true
- iss support: false
- past objectives: 2 x Remove Directors, 1 x Divest, ...
- past tactics: Private Letter, ...
- used tactics: Public Letter, ...
- ownership percent: 7%

Data Collection and Feature Engineering

The primary dataset was FactSet Shark Repellent, a proprietary corporate activism dataset from a financial services data vendor.

We supplemented this with Factset Pricing, Yahoo Finance and Twitter data sets to build a unified campaign, activist and target company data set for feature engineering.

Production and Reporting

We productionize our models via an end-to-end data, model and dashboard pipeline that runs through data, feature engineering, model fitting and reporting. The final product is an interactive dashboard that the user can use to analyze a campaign.

Conclusions and Recommendations

We conclude that campaign, activist and target company features can come together to be used to help predict relevant outcomes of interest for target companies.

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References


See Final Report for full list of additional references.