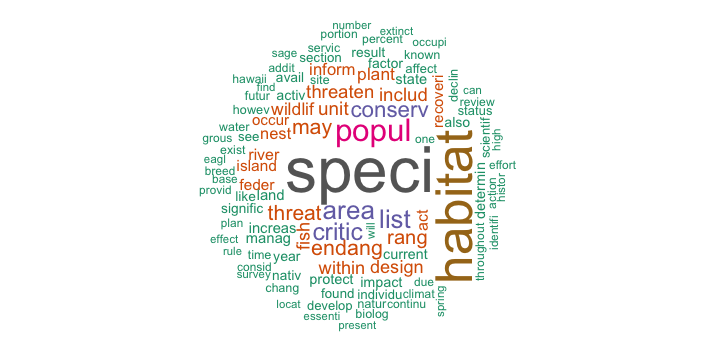
Tables and Figures

Kalmenovitz, Lowry, Volkova

2023-01-28

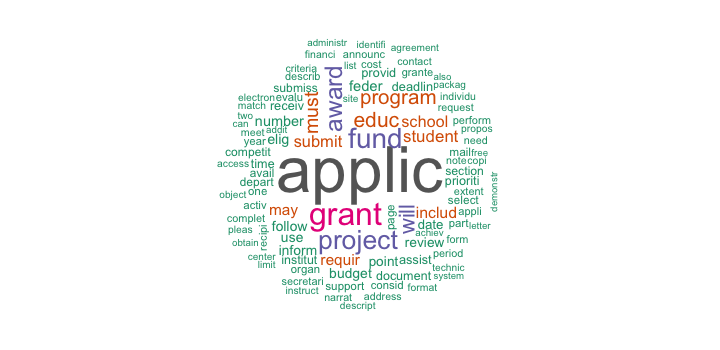
# **Figure 1: Topic Clouds**



## NULL



## NULL



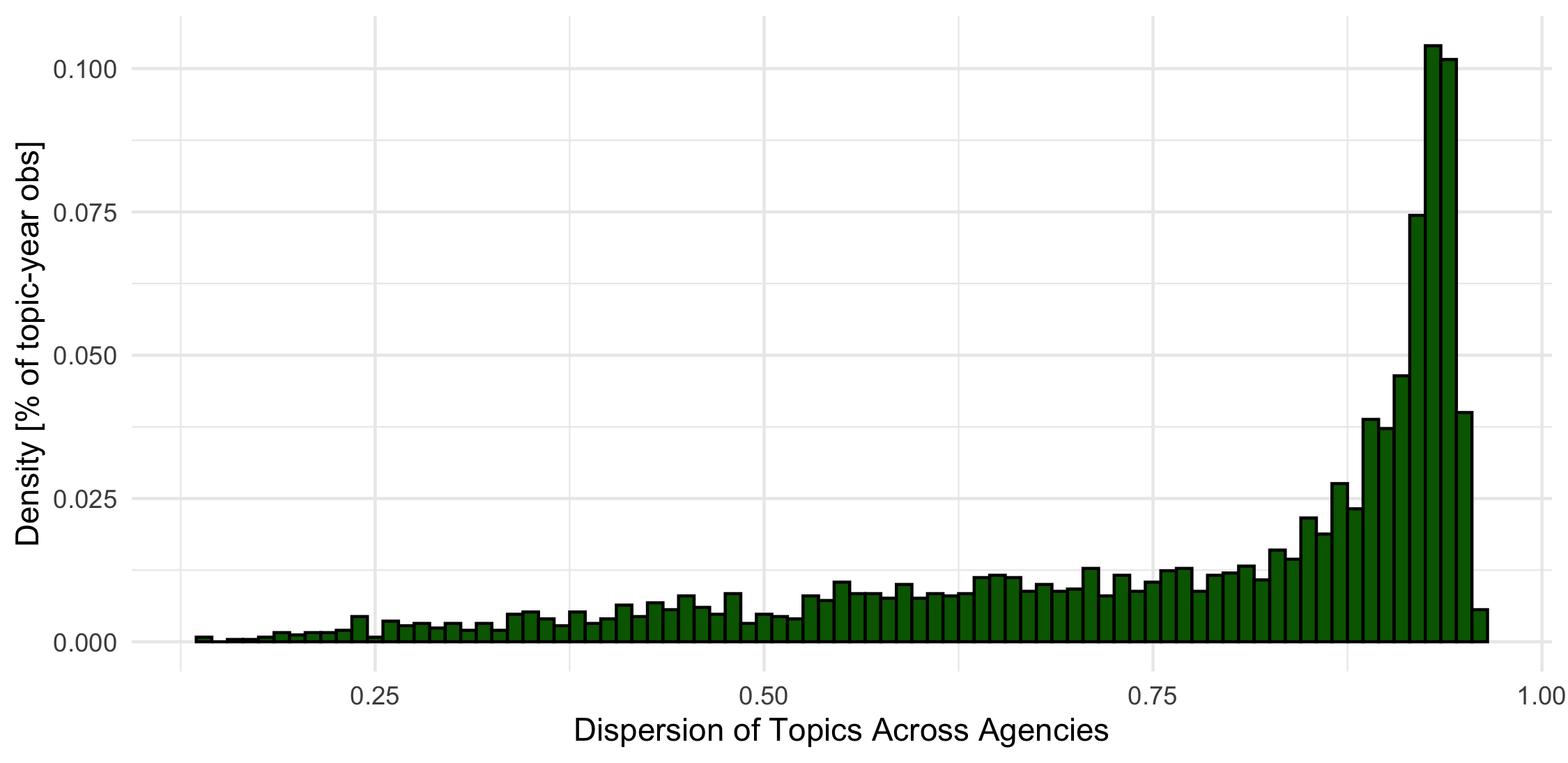
## NULL



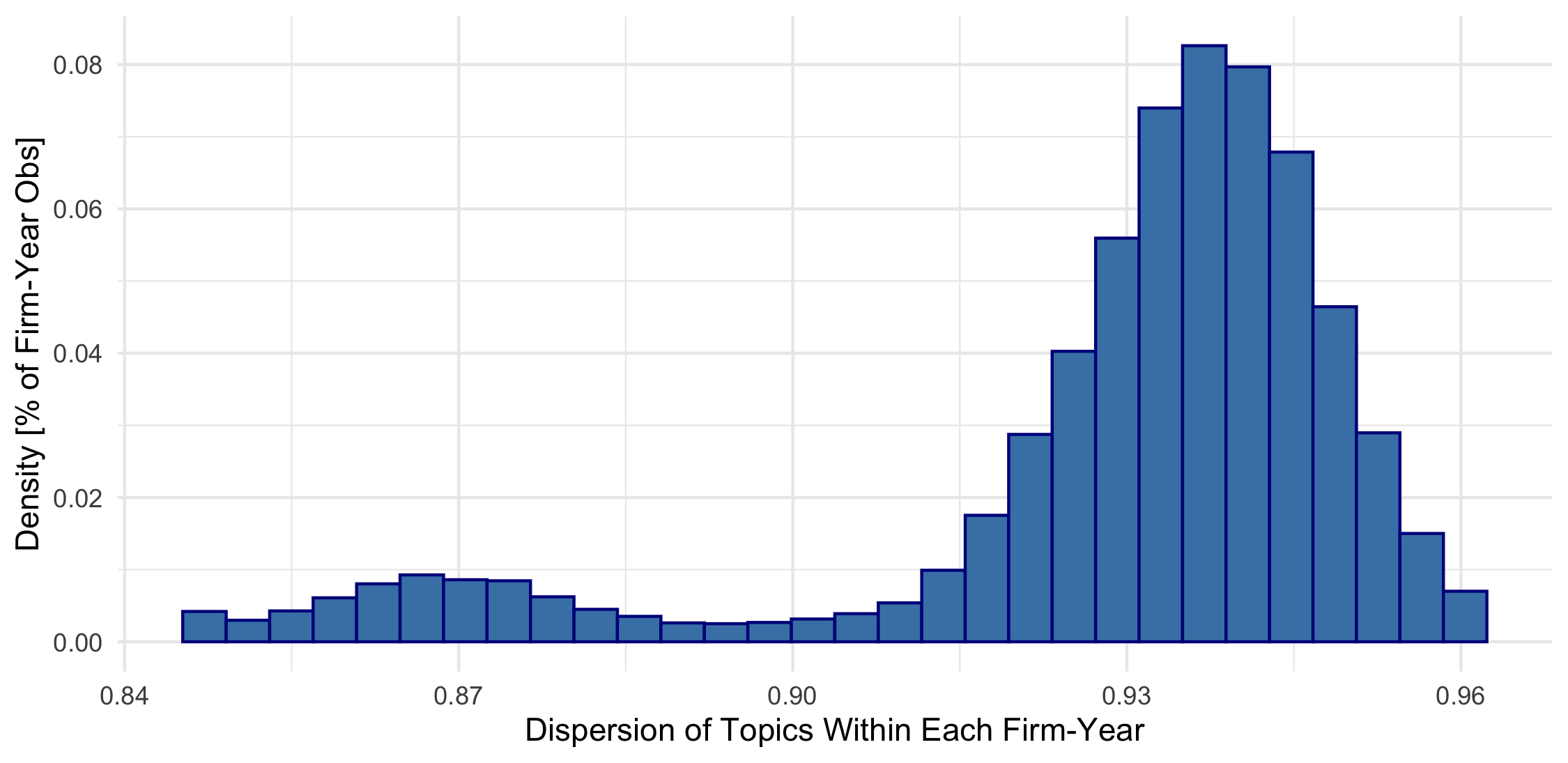
## NULL

# **Figure 2: Histograms**

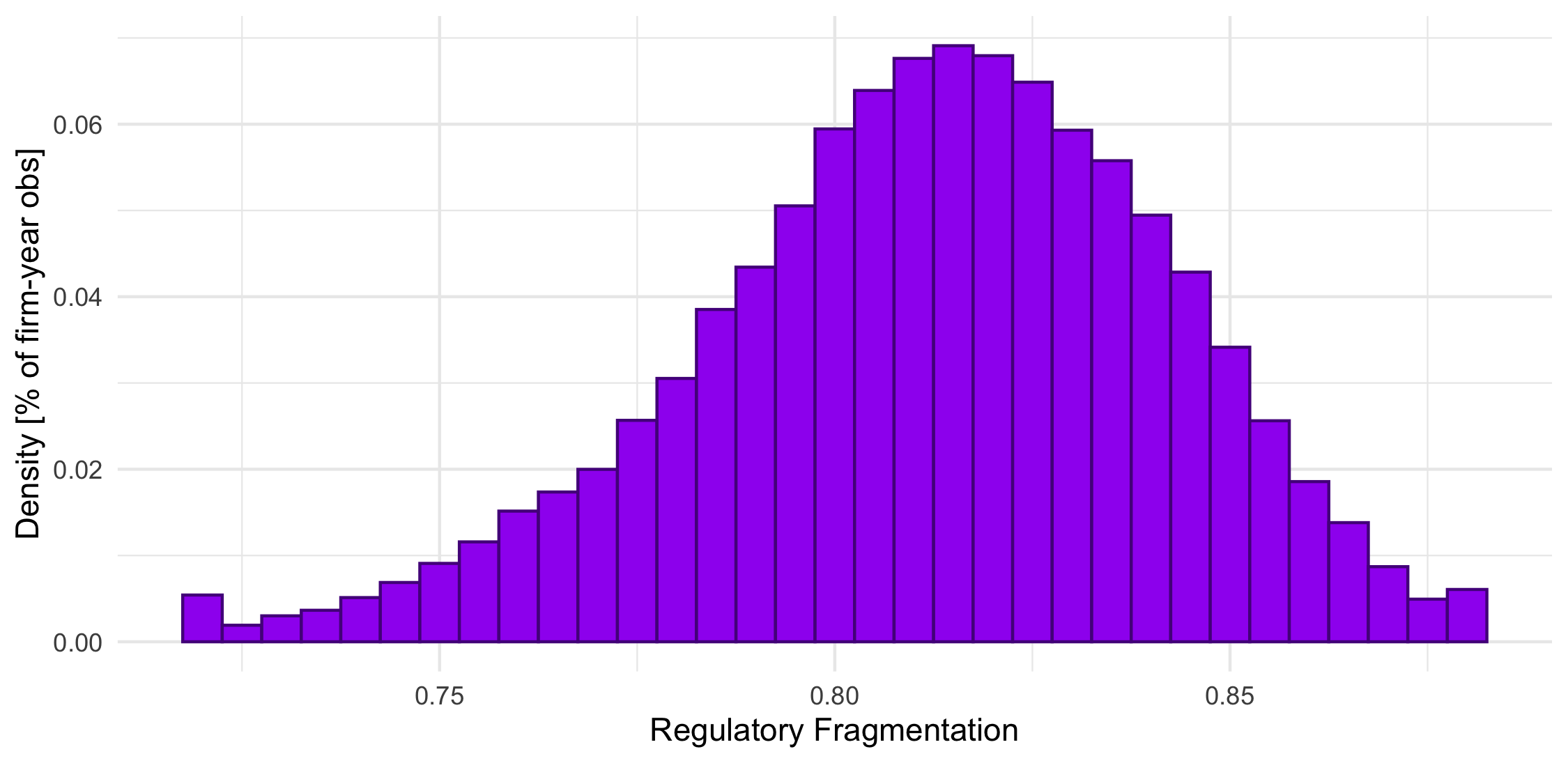
*Panel A: Dispersion of agencies per topic*



*Panel B: Dispersion of Topics per firm-year*

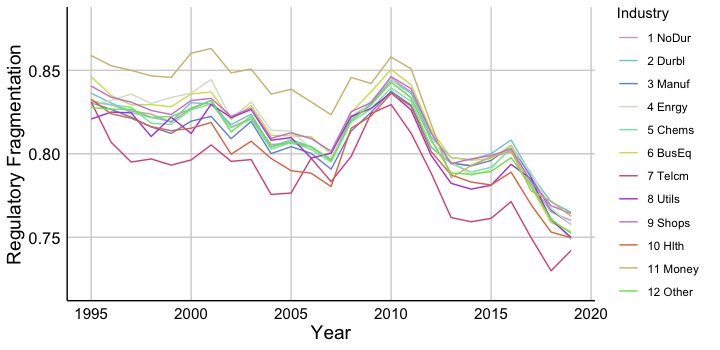


*Panel C: Dispersion of Agencies per Firm-year*

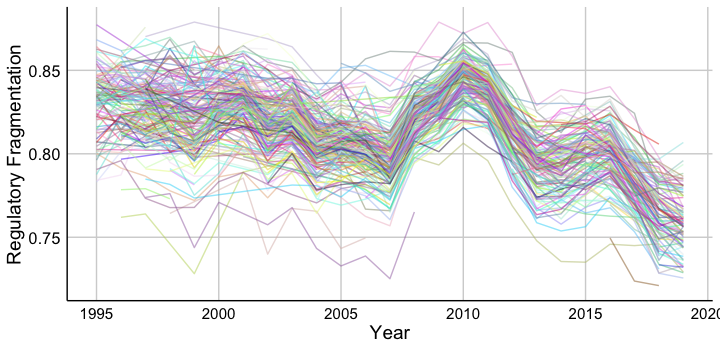


# **Figure 3: Time Trend**

## Panel A: 12 Industries

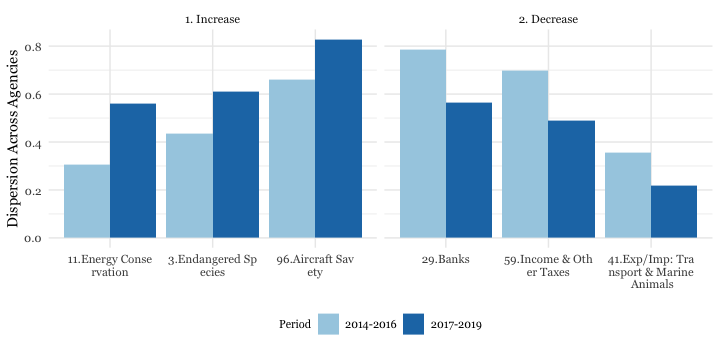


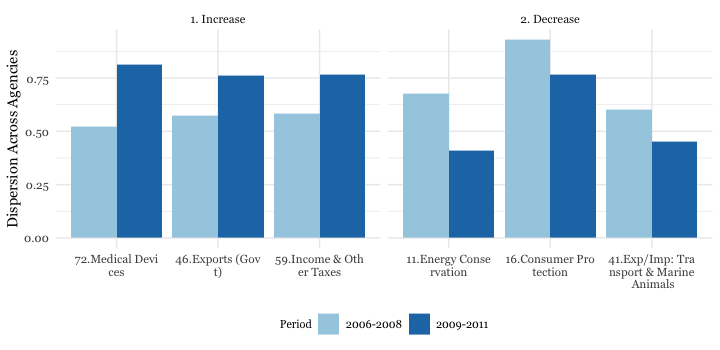
## Panel B: FF12 == 1



# **Figure 4:** Regulation Dispersion

## \*Panel B: Topics with biggest change around 2016 presidential election\*





## Panel C: Agencies the biggest , Trump

## Panel D: Agencies the biggest , GFC

# **Table 1:**

# **Table 2: Verification**

All variables are normalized

|  | **company\_FR.frag\_norm** | **agencies\_10K.frag\_norm** |
| --- | --- | --- |
| Regulation Dispersion | 0.047\*\* | 0.002 |
|  | (0.022) | (0.009) |
| Topic Dispersion | -0.062\*\* | 0.134\*\*\* |
|  | (0.025) | (0.017) |
| Regulation Complexity | -0.061 | -0.076\*\*\* |
|  | (0.038) | (0.017) |
| Log(Word,10K) | 0.026 | 0.300\*\*\* |
|  | (0.018) | (0.009) |
| Nsegments | 0.014\*\* | -0.002 |
|  | (0.007) | (0.004) |
| PPE/AT | -0.023 | -0.020\*\* |
|  | (0.030) | (0.010) |
| EBITDA/AT | -0.064\*\*\* | -0.003 |
|  | (0.019) | (0.004) |
| Log(Sale) | 0.275\*\*\* | 0.064\*\*\* |
|  | (0.038) | (0.013) |
| Tobin's Q | 0.002 | -0.005 |
|  | (0.012) | (0.004) |
| Num.Obs. | 14592 | 60534 |
| R2 | 0.628 | 0.772 |

# **Table 3: Descriptive statistics**

# **Table 4: SGA\_AT, TFP, ROA next year**

All variables are normalized

|  | **1.lead.sga\_at\_norm** | **2.lead.tfp\_norm** | **3.lead.roa\_norm** | **4.lead.sga\_at\_norm** | **5.lead.tfp\_norm** | **6.lead.roa\_norm** |
| --- | --- | --- | --- | --- | --- | --- |
| Regulation Dispersion | 0.043\*\*\* | -0.036\*\* | -0.059\*\*\* | 0.055\*\*\* | -0.032\* | -0.053\*\*\* |
|  | (0.015) | (0.016) | (0.013) | (0.014) | (0.018) | (0.015) |
| Topic Dispersion | 0.044\*\* | -0.030 | -0.012 | 0.046\*\* | -0.037\*\* | -0.009 |
|  | (0.017) | (0.020) | (0.021) | (0.019) | (0.018) | (0.018) |
| Regulation Complexity | 0.021 | 0.004 | 0.025 | 0.034 | 0.005 | 0.038\* |
|  | (0.020) | (0.019) | (0.028) | (0.026) | (0.021) | (0.019) |
| Log(Word,10K) | -0.015 | -0.019 | -0.135\*\*\* | -0.015 | -0.021\* | -0.131\*\*\* |
|  | (0.009) | (0.012) | (0.032) | (0.011) | (0.012) | (0.031) |
| Nsegments | 0.000 | 0.004 | -0.009\*\* | 0.003 | 0.000 | -0.008\*\* |
|  | (0.004) | (0.005) | (0.003) | (0.004) | (0.005) | (0.004) |
| PPE/AT | 0.071\*\* | -0.239\*\*\* | -0.080\*\*\* | 0.068\*\* | -0.254\*\*\* | -0.076\*\*\* |
|  | (0.028) | (0.041) | (0.020) | (0.030) | (0.037) | (0.026) |
| EBITDA/AT | -0.022\*\* | 0.371\*\*\* | 0.339\*\*\* | -0.023\*\* | 0.385\*\*\* | 0.336\*\*\* |
|  | (0.010) | (0.025) | (0.030) | (0.010) | (0.026) | (0.031) |
| Log(Sale) | -0.303\*\*\* | 0.376\*\*\* | 0.336\*\*\* | -0.318\*\*\* | 0.362\*\*\* | 0.332\*\*\* |
|  | (0.047) | (0.039) | (0.037) | (0.050) | (0.041) | (0.039) |
| Tobin's Q | 0.107\*\*\* | 0.204\*\*\* | -0.055\*\*\* | 0.111\*\*\* | 0.209\*\*\* | -0.054\*\*\* |
|  | (0.010) | (0.017) | (0.011) | (0.008) | (0.020) | (0.009) |
| Num.Obs. | 60534 | 38922 | 60534 | 60534 | 38922 | 60534 |
| R2 | 0.867 | 0.719 | 0.637 | 0.872 | 0.730 | 0.653 |
| R2 Adj. | 0.848 | 0.676 | 0.584 | 0.850 | 0.679 | 0.593 |
| RMSE | 0.36 | 0.53 | 0.60 | 0.36 | 0.52 | 0.59 |
| Std.Errors | by: FF48 | by: FF48 | by: FF48 | by: FF48 | by: FF48 | by: FF48 |
| FE: FF48 | X | X | X | X | X | X |
| FE: cik | X | X | X | X | X | X |
| FE: FF48\_year |  |  |  | X | X | X |
| FE: year | X | X | X |  |  |  |

# **Table 5: Sales growth, assets growth, emp next year**

All variables are normalized

|  | **1.lead.growth\_norm** | **2.lead.growth.at\_norm** | **3.lead.emp\_at\_norm** | **4.lead.growth\_norm** | **5.lead.growth.at\_norm** | **6.lead.emp\_at\_norm** |
| --- | --- | --- | --- | --- | --- | --- |
| Regulation Dispersion | -0.099\*\*\* | -0.143\*\*\* | 0.001 | -0.110\*\*\* | -0.139\*\*\* | 0.012\*\* |
|  | (0.017) | (0.024) | (0.015) | (0.022) | (0.027) | (0.006) |
| Topic Dispersion | -0.012 | 0.022 | 0.015 | 0.003 | 0.030 | 0.004 |
|  | (0.021) | (0.018) | (0.012) | (0.019) | (0.020) | (0.012) |
| Regulation Complexity | -0.145\*\*\* | -0.201\*\*\* | 0.032\*\* | -0.155\*\*\* | -0.195\*\*\* | 0.014 |
|  | (0.042) | (0.034) | (0.016) | (0.037) | (0.034) | (0.015) |
| Log(Word,10K) | 0.076\*\*\* | 0.099\*\*\* | -0.021\* | 0.068\*\*\* | 0.090\*\*\* | -0.020\* |
|  | (0.023) | (0.017) | (0.012) | (0.022) | (0.019) | (0.010) |
| Nsegments | 0.002 | -0.005 | -0.003 | -0.003 | -0.009 | -0.002 |
|  | (0.005) | (0.005) | (0.004) | (0.004) | (0.006) | (0.003) |
| PPE/AT | -0.089\*\*\* | -0.210\*\*\* | 0.068\*\*\* | -0.069\*\* | -0.194\*\*\* | 0.073\*\*\* |
|  | (0.023) | (0.040) | (0.017) | (0.031) | (0.052) | (0.020) |
| EBITDA/AT | -0.003 | 0.054\*\*\* | 0.027\*\*\* | -0.009 | 0.049\*\*\* | 0.023\*\*\* |
|  | (0.030) | (0.014) | (0.007) | (0.029) | (0.015) | (0.007) |
| Log(Sale) | 0.559\*\*\* | 0.477\*\*\* | -0.034 | 0.583\*\*\* | 0.487\*\*\* | -0.033 |
|  | (0.051) | (0.043) | (0.025) | (0.053) | (0.045) | (0.024) |
| Tobin's Q | 0.047\*\*\* | -0.048\*\*\* | 0.029\*\*\* | 0.044\*\*\* | -0.049\*\*\* | 0.031\*\*\* |
|  | (0.009) | (0.012) | (0.006) | (0.010) | (0.012) | (0.006) |
| Num.Obs. | 60534 | 60534 | 60534 | 60534 | 60534 | 60534 |
| R2 | 0.363 | 0.277 | 0.919 | 0.399 | 0.305 | 0.923 |
| R2 Adj. | 0.270 | 0.171 | 0.907 | 0.296 | 0.185 | 0.910 |
| RMSE | 0.80 | 0.85 | 0.29 | 0.78 | 0.83 | 0.28 |
| Std.Errors | by: FF48 | by: FF48 | by: FF48 | by: FF48 | by: FF48 | by: FF48 |
| FE: FF48 | X | X | X | X | X | X |
| FE: cik | X | X | X | X | X | X |
| FE: FF48\_year |  |  |  | X | X | X |
| FE: year | X | X | X |  |  |  |

# **Table 6: Subsamples**

All variables are normalized

## Panel A

Model 1 keeps observations in the same icode-500 HP industry code. Model 2 keeps observations with the same number of segments, Model 3 keep observations with the change in total assets below 20%

|  | **SGA|ind** | **SGA|seg** | **SGA|size** | **TFP|ind** | **TFP|seg** | **TFP|size** | **Grwoth|ind** | **Growth|seg** | **Growth|size** |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| regul.disp\_norm | 0.041\*\* | 0.041\*\* | 0.034\*\* | -0.033\*\* | -0.038\*\* | -0.030\* | -0.100\*\*\* | -0.100\*\*\* | -0.056\*\*\* |
|  | (0.017) | (0.016) | (0.014) | (0.016) | (0.016) | (0.017) | (0.018) | (0.017) | (0.014) |
| Num.Obs. | 54259 | 56444 | 44207 | 34473 | 35755 | 28785 | 54259 | 56444 | 44207 |
| R2 | 0.874 | 0.870 | 0.904 | 0.725 | 0.722 | 0.746 | 0.383 | 0.376 | 0.400 |

## Panel B Interactions

|  | **SGA|ind** | **SGA|seg** | **SGA|size** | **TFP|ind** | **TFP|seg** | **TFP|size** | **Grwoth|ind** | **Growth|seg** | **Growth|size** |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| regul.disp\_norm | 0.042\*\* | 0.043\*\* | 0.047\*\*\* | -0.036\*\* | -0.035\*\* | -0.034\*\* | -0.099\*\*\* | -0.099\*\*\* | -0.110\*\*\* |
|  | (0.016) | (0.016) | (0.015) | (0.014) | (0.014) | (0.016) | (0.022) | (0.021) | (0.022) |
| change | 0.011 | 0.007 | 0.045\*\*\* | -0.003 | -0.007 | 0.084\*\*\* | 0.000 | 0.011 | 0.079\*\*\* |
|  | (0.008) | (0.008) | (0.008) | (0.012) | (0.014) | (0.015) | (0.010) | (0.015) | (0.017) |
| regul.disp\_norm × change | 0.007 | 0.005 | -0.009 | 0.001 | -0.004 | 0.001 | 0.006 | 0.011 | 0.046\* |
|  | (0.008) | (0.014) | (0.006) | (0.019) | (0.015) | (0.012) | (0.015) | (0.025) | (0.025) |
| Num.Obs. | 60534 | 60534 | 60534 | 38922 | 38922 | 38922 | 60534 | 60534 | 60534 |
| R2 | 0.867 | 0.867 | 0.868 | 0.719 | 0.719 | 0.720 | 0.363 | 0.363 | 0.364 |

# **Table 7: Industry Composition**

All variables are normalized

|  | **lead.n\_ipo\_norm** | **lead.n\_join\_norm** | **lead.n\_left\_norm** | **lead.n\_peers\_norm** |
| --- | --- | --- | --- | --- |
| regul.disp\_norm | -0.049\*\*\* | -0.024\* | 0.026\*\* | -0.035\*\*\* |
|  | (0.013) | (0.014) | (0.011) | (0.008) |
| Num.Obs. | 60534 | 60534 | 56364 | 60534 |
| R2 | 0.786 | 0.604 | 0.119 | 0.915 |

# **Table 8 Coauthored Topics**

|  | **lead.sga\_at\_norm** | **lead.tfp\_norm** | **lead.roa\_norm** | **lead.growth\_norm** | **lead.growth.at\_norm** | **lead.emp\_at\_norm** |
| --- | --- | --- | --- | --- | --- | --- |
| regul.disp\_norm | 0.060\*\*\* | -0.033 | -0.062\*\*\* | -0.111\*\*\* | -0.153\*\*\* | 0.022\*\*\* |
|  | (0.014) | (0.020) | (0.017) | (0.026) | (0.027) | (0.007) |
| coauthored | 0.014 | -0.023 | -0.021 | -0.011 | -0.027 | -0.011 |
|  | (0.009) | (0.017) | (0.015) | (0.017) | (0.027) | (0.007) |
| regul.disp\_norm × coauthored | -0.014\*\* | 0.008 | 0.019 | 0.006 | 0.038\*\* | -0.019\*\*\* |
|  | (0.006) | (0.011) | (0.014) | (0.019) | (0.015) | (0.007) |
| Num.Obs. | 60534 | 38922 | 60534 | 60534 | 60534 | 60534 |
| R2 | 0.872 | 0.730 | 0.653 | 0.400 | 0.306 | 0.923 |

# **Table 9 Lobby next year**

All variables are normalized

Dependent variable: log of (1 + lobby expenses next year).

* Average of lobby expenses next year = 749775.2 dollars
* Average of log 1 + lobby expenses next year = 7.694036 dollars
* standard deviation of log 1 + lobby expenses next year = 6.29541 dollars

|  | **1.lead.log\_lobby\_norm** | **2.lead.lobby\_norm** | **3.lead.log\_lobby\_norm** | **4.lead.lobby\_norm** |
| --- | --- | --- | --- | --- |
| Regulation Dispersion | -0.106\*\*\* | -0.091\*\*\* | -0.102\*\* | -0.080\*\* |
|  | (0.032) | (0.031) | (0.038) | (0.030) |
| Topic Dispersion | -0.033 | 0.007 | -0.056 | -0.025 |
|  | (0.050) | (0.033) | (0.051) | (0.029) |
| Regulation Complexity | -0.048 | -0.057 | -0.067 | -0.093\* |
|  | (0.062) | (0.060) | (0.066) | (0.055) |
| Log(Word,10K) | 0.071\*\* | 0.031 | 0.045 | 0.015 |
|  | (0.034) | (0.030) | (0.033) | (0.033) |
| Nsegments | 0.005 | 0.015\* | 0.004 | 0.014 |
|  | (0.011) | (0.009) | (0.012) | (0.010) |
| PPE/AT | 0.006 | 0.001 | -0.014 | 0.004 |
|  | (0.034) | (0.024) | (0.038) | (0.030) |
| EBITDA/AT | -0.026\*\* | -0.031\*\*\* | -0.012 | -0.026\*\*\* |
|  | (0.012) | (0.007) | (0.015) | (0.009) |
| Log(Sale) | 0.324\*\*\* | 0.224\*\*\* | 0.333\*\*\* | 0.215\*\*\* |
|  | (0.076) | (0.053) | (0.083) | (0.068) |
| Tobin's Q | -0.005 | -0.002 | -0.013 | -0.010 |
|  | (0.013) | (0.008) | (0.014) | (0.007) |
| Num.Obs. | 14983 | 14983 | 14983 | 14983 |
| R2 | 0.611 | 0.874 | 0.649 | 0.887 |
| R2 Adj. | 0.559 | 0.857 | 0.570 | 0.862 |
| RMSE | 0.62 | 0.36 | 0.59 | 0.34 |
| Std.Errors | by: FF48 | by: FF48 | by: FF48 | by: FF48 |
| FE: FF48 | X | X | X | X |
| FE: cik | X | X | X | X |
| FE: FF48\_year |  |  | X | X |
| FE: year | X | X |  |  |

# **Table 10: Relationship between Rules and Notices**

All variables are normalized

Here we take a log(1 + words) in rules and notice. Then we also standarise it: mean = 0 and st.dev = 1.

|  | **(1)** | **(2)** | **(3)** | **(4)** |
| --- | --- | --- | --- | --- |
| lag1\_notice | 0.248\*\*\* |  | 0.138\*\*\* | 0.113\*\*\* |
|  | (0.046) |  | (0.031) | (0.009) |
| lag2\_notice | 0.161\*\*\* |  | 0.085\*\*\* | 0.102\*\*\* |
|  | (0.028) |  | (0.023) | (0.009) |
| lead1\_notice |  | 0.234\*\*\* | 0.144\*\*\* | 0.122\*\*\* |
|  |  | (0.050) | (0.032) | (0.009) |
| lead2\_notice |  | 0.201\*\*\* | 0.138\*\*\* | 0.142\*\*\* |
|  |  | (0.025) | (0.018) | (0.010) |
| Num.Obs. | 203800 | 203800 | 203800 | 203800 |
| R2 | 0.830 | 0.832 | 0.835 | 0.898 |

# **Table 11 RD: Notices, Pr. Rules, Rules**

All variables are normalized

Correlation matrix between four measures of regulation dispersion (across all documents, notices, proposed rules and rules)

## Panel A *Correlations*

*Notice are less correlation with rules and proposed rules. But other things are correlated.*

| **regul.disp\_norm** | **regul.disp\_Notice\_norm** | **regul.disp\_PRule\_norm** | **regul.disp\_Rule\_norm** |
| --- | --- | --- | --- |
| 1.00 | 0.76 | 0.71 | 0.74 |
| 0.76 | 1.00 | 0.25 | 0.28 |
| 0.71 | 0.25 | 1.00 | 0.67 |
| 0.74 | 0.28 | 0.67 | 1.00 |

## Panel B *Notices*

|  | **sga** | **tfp** | **roa** | **growth** | **growth\_at** | **emp** |
| --- | --- | --- | --- | --- | --- | --- |
| regul.disp\_Notice\_norm | 0.045\*\* | -0.066\*\*\* | 0.019 | -0.105\*\*\* | -0.127\*\*\* | 0.011 |
|  | (0.020) | (0.021) | (0.015) | (0.023) | (0.026) | (0.009) |
| Num.Obs. | 60534 | 38922 | 60534 | 60534 | 60534 | 60534 |
| R2 | 0.872 | 0.730 | 0.653 | 0.399 | 0.304 | 0.923 |

## Panel C *Pr Rules*

|  | **sga** | **tfp** | **roa** | **growth** | **growth\_at** | **emp** |
| --- | --- | --- | --- | --- | --- | --- |
| regul.disp\_PRule\_norm | 0.052\*\*\* | -0.003 | -0.085\*\*\* | -0.088\*\*\* | -0.119\*\*\* | 0.011\*\* |
|  | (0.013) | (0.012) | (0.017) | (0.021) | (0.024) | (0.005) |
| Num.Obs. | 60534 | 38922 | 60534 | 60534 | 60534 | 60534 |
| R2 | 0.872 | 0.730 | 0.653 | 0.399 | 0.305 | 0.923 |

## Panel D *Rules*

|  | **sga** | **tfp** | **roa** | **growth** | **growth\_at** | **emp** |
| --- | --- | --- | --- | --- | --- | --- |
| regul.disp\_Rule\_norm | 0.050\*\*\* | 0.001 | -0.095\*\*\* | -0.074\*\*\* | -0.093\*\*\* | 0.012\*\* |
|  | (0.012) | (0.014) | (0.015) | (0.019) | (0.021) | (0.005) |
| Num.Obs. | 60534 | 38922 | 60534 | 60534 | 60534 | 60534 |
| R2 | 0.872 | 0.730 | 0.654 | 0.399 | 0.305 | 0.923 |

# **Table 12 RD: New vs Old Rules**

All variables are normalized

Correlation matrix between four measures of regulation dispersion (across all documents, notices, proposed rules and rules)

## Panel A *Correlations*

*Notice are less correlation with rules and proposed rules. But other things are correlated.*

| **regul.disp\_Rule** | **regul.disp\_RIN** | **regul.disp\_old\_RIN** |
| --- | --- | --- |
| 1.00 | 0.62 | 0.68 |
| 0.62 | 1.00 | 0.54 |
| 0.68 | 0.54 | 1.00 |

## Panel B *RIN*

|  | **sga** | **tfp** | **roa** | **growth** | **growth\_at** | **emp** |
| --- | --- | --- | --- | --- | --- | --- |
| regul.disp\_RIN\_norm | 0.069\*\*\* | -0.015 | -0.120\*\*\* | -0.088\*\*\* | -0.122\*\*\* | 0.004 |
|  | (0.014) | (0.012) | (0.017) | (0.023) | (0.021) | (0.009) |
| Num.Obs. | 60534 | 38922 | 60534 | 60534 | 60534 | 60534 |
| R2 | 0.872 | 0.730 | 0.654 | 0.399 | 0.305 | 0.923 |

## Panel C *Old RIN*

|  | **sga** | **tfp** | **roa** | **growth** | **growth\_at** | **emp** |
| --- | --- | --- | --- | --- | --- | --- |
| regul.disp\_old\_RIN\_norm | 0.040\*\*\* | -0.005 | -0.068\*\*\* | -0.065\*\*\* | -0.090\*\*\* | 0.014\*\*\* |
|  | (0.011) | (0.013) | (0.016) | (0.019) | (0.020) | (0.005) |
| Num.Obs. | 60534 | 38922 | 60534 | 60534 | 60534 | 60534 |
| R2 | 0.872 | 0.730 | 0.653 | 0.399 | 0.305 | 0.923 |

# Online Appendix

# **Table A1. Cost and Time Compliance**

|  | **company\_FR.frag\_norm** | **agencies\_10K.frag\_norm** |
| --- | --- | --- |
| Regulation Dispersion | 0.085 | 0.112\*\*\* |
|  | (0.067) | (0.019) |
| Topic Dispersion | -0.097\*\* | -0.033\*\* |
|  | (0.049) | (0.015) |
| Regulation Complexity | -0.054 | -0.115\*\*\* |
|  | (0.122) | (0.036) |
| Log(Word,10K) | 0.004 | 0.190\*\*\* |
|  | (0.049) | (0.015) |
| Nsegments | 0.054 | 0.009 |
|  | (0.033) | (0.016) |
| PPE/AT | -0.081 | -0.036 |
|  | (0.229) | (0.029) |
| EBITDA/AT | -0.184 | -0.039 |
|  | (0.145) | (0.024) |
| Log(Sale) | -0.056 | 0.107\*\*\* |
|  | (0.132) | (0.028) |
| Tobin's Q | 0.032 | -0.007 |
|  | (0.121) | (0.014) |
| Num.Obs. | 1593 | 9688 |
| R2 | 0.628 | 0.810 |

# **Table A2. Alternative LDAs**

## *Panel A, MD&A Section*

|  | **sga** | **tfp** | **roa** | **growth** | **growth\_at** | **emp** |
| --- | --- | --- | --- | --- | --- | --- |
| regul.disp\_item7\_norm | 0.039\*\*\* | -0.021\*\* | -0.044\*\*\* | -0.006 | -0.047\*\*\* | 0.018\*\* |
|  | (0.010) | (0.010) | (0.009) | (0.011) | (0.013) | (0.008) |
| Num.Obs. | 57275 | 36934 | 57275 | 57275 | 57275 | 57275 |
| R2 | 0.873 | 0.732 | 0.655 | 0.403 | 0.310 | 0.923 |

## *Panel B, Item1 Section*

|  | **sga** | **tfp** | **roa** | **growth** | **growth\_at** | **emp** |
| --- | --- | --- | --- | --- | --- | --- |
| regul.disp\_item1\_norm | -0.004 | -0.015 | -0.009 | 0.017 | 0.006 | -0.010 |
|  | (0.009) | (0.019) | (0.010) | (0.021) | (0.022) | (0.008) |
| Num.Obs. | 60152 | 38698 | 60152 | 60152 | 60152 | 60152 |
| R2 | 0.871 | 0.730 | 0.654 | 0.399 | 0.304 | 0.922 |

## *Panel C, Most Intensive Topic*

|  | **sga** | **tfp** | **roa** | **growth** | **growth\_at** | **emp** |
| --- | --- | --- | --- | --- | --- | --- |
| regul.disp\_main\_norm | 0.015\*\*\* | 0.002 | -0.032\*\*\* | -0.035\*\*\* | -0.047\*\*\* | 0.000 |
|  | (0.004) | (0.007) | (0.003) | (0.006) | (0.008) | (0.004) |
| Num.Obs. | 60534 | 38922 | 60534 | 60534 | 60534 | 60534 |
| R2 | 0.872 | 0.730 | 0.653 | 0.399 | 0.304 | 0.923 |

## *Panel D, Drop 3 Most Common Topics*

|  | **sga** | **tfp** | **roa** | **growth** | **growth\_at** | **emp** |
| --- | --- | --- | --- | --- | --- | --- |
| regul.disp\_no3\_norm | 0.030\*\* | -0.036\*\* | 0.004 | -0.070\*\*\* | -0.083\*\*\* | 0.011 |
|  | (0.012) | (0.017) | (0.016) | (0.021) | (0.025) | (0.006) |
| Num.Obs. | 60534 | 38922 | 60534 | 60534 | 60534 | 60534 |
| R2 | 0.872 | 0.730 | 0.653 | 0.399 | 0.305 | 0.923 |

# **Table A3, Different Number of Topics**

## *Panel A, 57 topics*

|  | **sga** | **tfp** | **roa** | **growth** | **growth\_at** | **emp** |
| --- | --- | --- | --- | --- | --- | --- |
| regul.disp\_57\_norm | 0.048\*\*\* | -0.027 | -0.039\*\* | -0.093\*\*\* | -0.096\*\*\* | 0.023\*\* |
|  | (0.013) | (0.019) | (0.018) | (0.025) | (0.024) | (0.009) |
| Num.Obs. | 60534 | 38922 | 60534 | 60534 | 60534 | 60534 |
| R2 | 0.872 | 0.730 | 0.653 | 0.399 | 0.304 | 0.923 |

## *Panel B, 70 topics*

|  | **sga** | **tfp** | **roa** | **growth** | **growth\_at** | **emp** |
| --- | --- | --- | --- | --- | --- | --- |
| regul.disp\_70\_norm | 0.059\*\*\* | -0.030\* | -0.049\*\*\* | -0.117\*\*\* | -0.148\*\*\* | 0.022\*\*\* |
|  | (0.013) | (0.015) | (0.014) | (0.021) | (0.024) | (0.008) |
| Num.Obs. | 60534 | 38922 | 60534 | 60534 | 60534 | 60534 |
| R2 | 0.872 | 0.730 | 0.653 | 0.399 | 0.305 | 0.923 |

## *Panel C, 200 topics*

|  | **sga** | **tfp** | **roa** | **growth** | **growth\_at** | **emp** |
| --- | --- | --- | --- | --- | --- | --- |
| regul.disp\_200\_norm | 0.053\*\*\* | -0.014 | -0.084\*\*\* | -0.048\*\* | -0.046\*\* | 0.015\*\* |
|  | (0.011) | (0.016) | (0.013) | (0.018) | (0.020) | (0.007) |
| Num.Obs. | 60534 | 38922 | 60534 | 60534 | 60534 | 60534 |
| R2 | 0.872 | 0.730 | 0.654 | 0.398 | 0.303 | 0.923 |

## *Panel D, 300 topics*

|  | **sga** | **tfp** | **roa** | **growth** | **growth\_at** | **emp** |
| --- | --- | --- | --- | --- | --- | --- |
| regul.disp\_300\_norm | 0.044\*\*\* | -0.013 | -0.082\*\*\* | -0.038\*\* | -0.059\*\*\* | -0.004 |
|  | (0.010) | (0.013) | (0.016) | (0.015) | (0.017) | (0.009) |
| Num.Obs. | 60534 | 38922 | 60534 | 60534 | 60534 | 60534 |
| R2 | 0.872 | 0.730 | 0.653 | 0.398 | 0.304 | 0.923 |

## *Panel E, 1000 topics*

|  | **sga** | **tfp** | **roa** | **growth** | **growth\_at** | **emp** |
| --- | --- | --- | --- | --- | --- | --- |
| regul.disp\_1000\_norm | 0.032\*\*\* | -0.002 | -0.060\*\*\* | -0.024\* | -0.017 | -0.001 |
|  | (0.009) | (0.009) | (0.013) | (0.013) | (0.014) | (0.006) |
| Num.Obs. | 60534 | 38922 | 60534 | 60534 | 60534 | 60534 |
| R2 | 0.872 | 0.730 | 0.653 | 0.398 | 0.303 | 0.923 |

# Rolling 5 and Rolling 10 year

|  | **sga** | **tfp** | **roa** | **growth** | **growth\_at** | **emp** |
| --- | --- | --- | --- | --- | --- | --- |
| regul.disp\_rolling5\_norm | 0.055\*\*\* | -0.037\*\* | -0.055\*\*\* | -0.069\*\*\* | -0.102\*\*\* | 0.011 |
|  | (0.013) | (0.018) | (0.014) | (0.021) | (0.026) | (0.007) |
| Num.Obs. | 53866 | 34040 | 53866 | 53866 | 53866 | 53866 |
| R2 | 0.877 | 0.740 | 0.660 | 0.395 | 0.296 | 0.929 |

|  | **sga** | **tfp** | **roa** | **growth** | **growth\_at** | **emp** |
| --- | --- | --- | --- | --- | --- | --- |
| regul.disp\_rolling10\_norm | 0.045\*\*\* | -0.028 | -0.065\*\*\* | -0.049\*\* | -0.084\*\*\* | 0.003 |
|  | (0.013) | (0.020) | (0.013) | (0.022) | (0.028) | (0.008) |
| Num.Obs. | 42241 | 26550 | 42241 | 42241 | 42241 | 42241 |
| R2 | 0.893 | 0.766 | 0.683 | 0.409 | 0.303 | 0.943 |

# **Table A4. Recent IPOs and Old Companies**

## Panel A. Recept IPOs

This table only includes companies that went public less than 10 years ago

|  | **sga** | **tfp** | **roa** | **growth** | **growth\_at** | **emp** |
| --- | --- | --- | --- | --- | --- | --- |
| regul.disp\_norm | 0.069\*\* | -0.034 | -0.122\*\*\* | -0.128\*\* | -0.160\*\* | 0.023 |
|  | (0.026) | (0.043) | (0.044) | (0.050) | (0.063) | (0.015) |
| Num.Obs. | 20893 | 12597 | 20893 | 20893 | 20893 | 20893 |
| R2 | 0.908 | 0.794 | 0.724 | 0.534 | 0.462 | 0.954 |