WHICH FIRMS ARE COVERED BY FINANCIAL ANALYSTS?

CURRENT EVIDENCE FROM NON-U.S. FIRMS

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4th Assignment

Research on Corporate Transparency

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DATA PREPARATION

- Selection of Compustat Global data for the fiscal years 2019 and 2020 (non-U.S. firms)
- Number of unique analysts that issued an estimate for a given non-U.S. firm identified by its gvkey and I/B/E/S ticker in calendar year 2020
- Since the Compustat Global dataset consists of variables shown in local currency exchange rates from WRDS were retrieved using the SAS code *comp_exchange rates*:
  - Daily exchange rate from *comp.g_exrt_dly* with GBP as benchmark currency to convert local currency to USD (Source: https://wrds-www.wharton.upenn.edu)
  - Retrieved for currency codes (*curcd*) in Compustat dataset
  - Exchange rate factor was multiplied with selected numeric values in the Compustat Global dataset (exchange rate: 1 unit local currency = x USD)
- Fama-French Industry Classification (ff48)

ESTIMATION

$$Analy\_folw\_ln = \beta_0 size\_ta + \beta_1\ size\_employ + \beta_2 cap\_intens + \beta_3 rnd\_intens + \beta_4 liquidity + \beta_5 roa + \beta_6 leverage + \mu$$

where*:

- analy_folw_ln = log of number of analyst following a firm $_i$
- size_ta = log of total assets
- size_employ = number of epmloyees
- cap_expend = capital expenditures to total assets
- rnd_intens = research & development cost to total assets
- liquidity = current assets to current liabilities
- roa = net income to total assets
- leverage = difference between long-term debt and debt in current liabilities to stockholders' equity
- (revenue growth = revenue $_t$ to revenue $_{t-1}$ -1)
- μ for industry fixed effects (Fama-French 48 Industry Classification)

* Refer to Asquith et al. (2004), Lang et al. (2004), Bradshaw et al. (2016).

RESULTS (1/2)

- Table 1 shows the results using an OLS regression analysis after excluding outliers.
  [R code: ExPanD(df_sample_adj, cs_id = c("gvkey", "cname")]
- The results for analyst following were shown for both firm years 2019 and 2020, to show potential differentiation between the two observation years, because the number of analyst following were retrieved only for 2020. In 2020, year-end financial information was only published for 2019, which could explain the slightly negative growth rate (Figure 6, slide 5) as well as the stable number of analysts following from 2019 in 2020.
- Results are significant on a 1% level (except for size_employ 2020 and liquidity 2019.

Table 1: Analysts Following

OLS Regression Analysis

Dependent Variable	*analy_folw_ln*		
Variables	**Full sample**	**2019**	**2020**
	(1)	(2)	(3)
size_ta	0.401 ***	0.392 ***	0.411 ***
	(0.007)	(0.009)	(0.012)
size_employ	0.003 ***	0.003 ***	0.002 **
	(0.001)	(0.001)	(0.001)
cap_expend	2.555 ***	2.615 ***	2.636 ***
	(0.284)	(0.352)	(0.488)
rnd_intens	5.197 ***	5.245 ***	5.131 ***
	(0.234)	(0.296)	(0.382)
liquidity	0.019 ***	0.009	0.033 ***
	(0.006)	(0.008)	(0.010)
roa	1.774 ***	2.118 ***	1.283 ***
	(0.107)	(0.139)	(0.171)
leverage	0.168 ***	0.167 ***	0.164 ***
	(0.019)	(0.025)	(0.029)
Observations	*7,136*	*4,475*	*2,661*
Industry Fixed Effects	*ff48_ind*	*ff48_ind*	*ff48_ind*
R^2 (proj model)	0.496	0.503	0.478
Adj. R^2	0.492	0.498	0.468

**p<0.1; **p<0.05; ***p<0.01*

RESULTS (2/2)

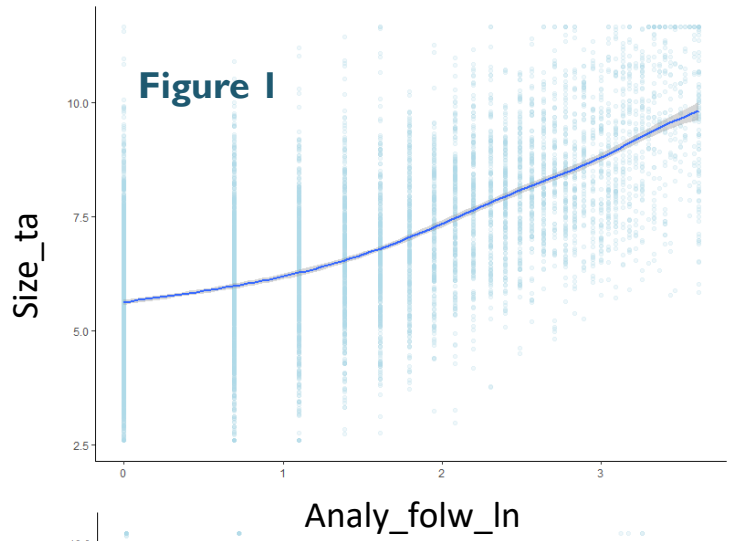
Figure 1
Size_ta
Analy_folw_ln

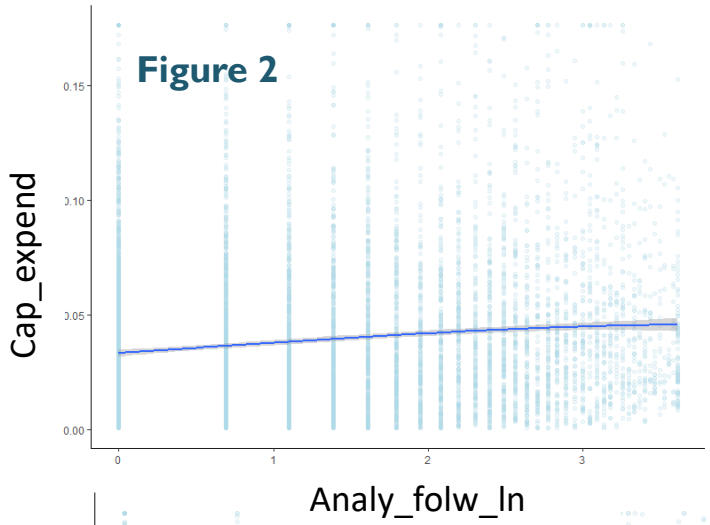
Figure 2
Cap_expend
Analy_folw_ln

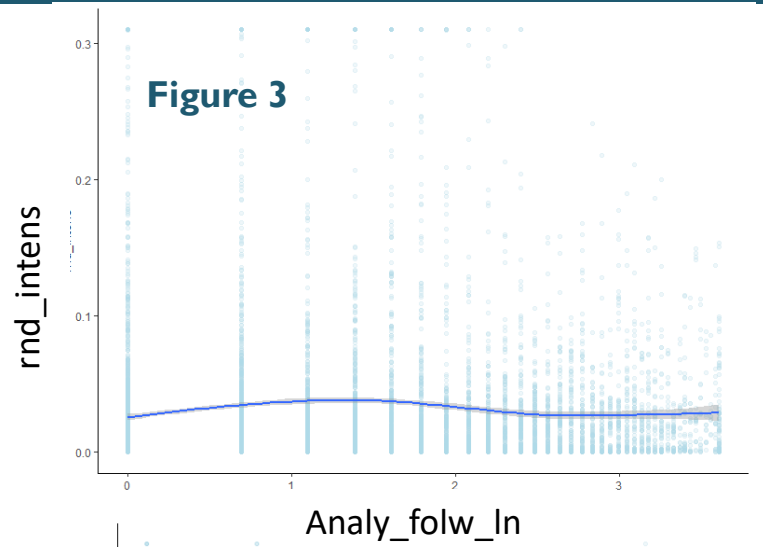
Figure 3
rnd_intens
Analy_folw_ln

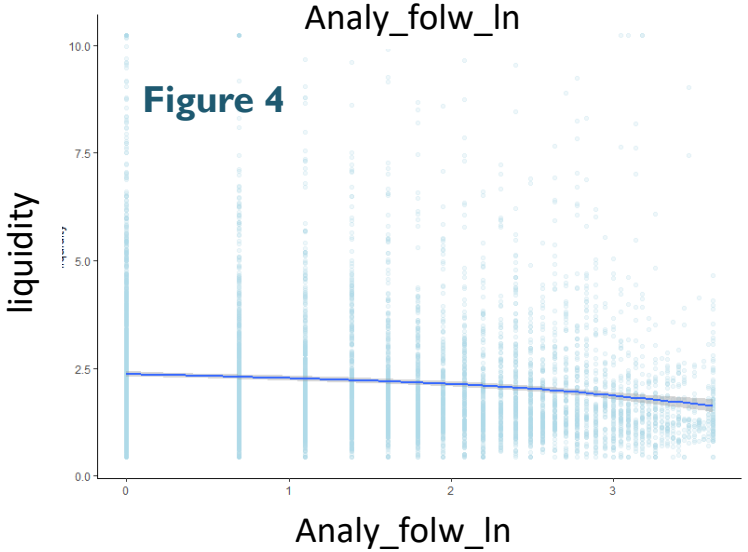
Figure 4
liquidity
Analy_folw_ln

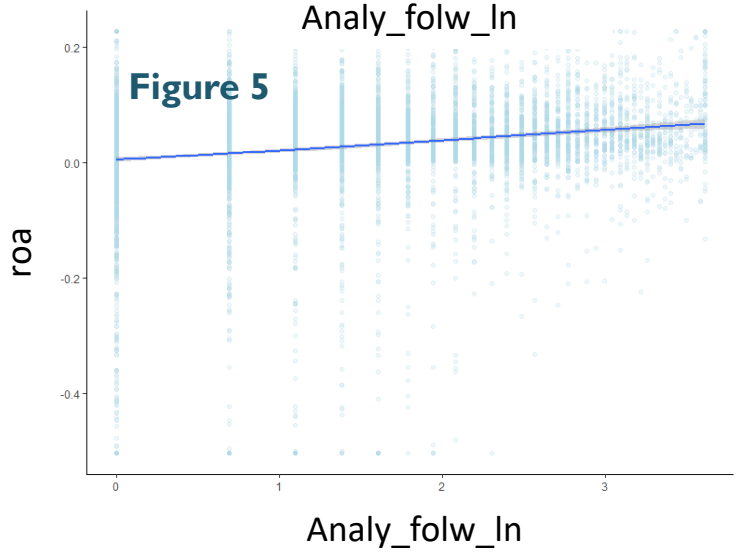
Figure 5
roa
Analy_folw_ln

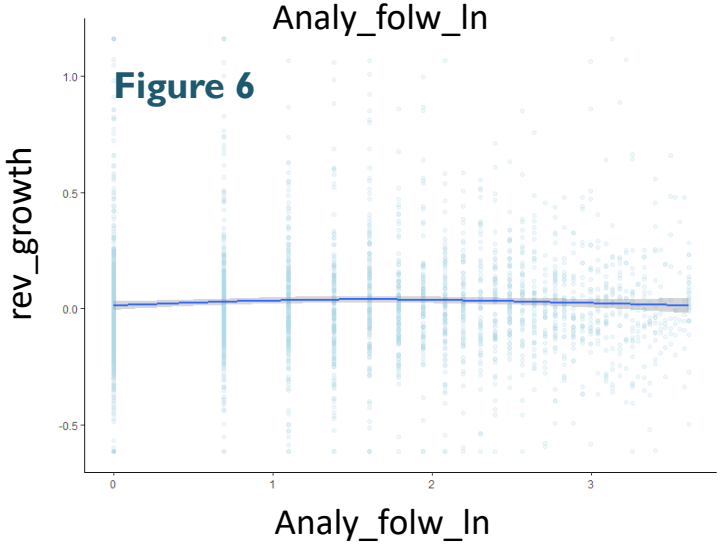
Figure 6
rev_growth
Analy_folw_ln

INTERPRETATION & LIMITATIONS

Interpretation of results

- Analysts tend to follow firms
  - that are larger (size total assets, No. of employees)
  - with better liquidity ratios
  - and greater investment opportunities (capital expenditure)
  - that have higher expectations on profitability (roa) and innovation (rnd intensity).
- Interestingly, the growth rate (rev_growth) was shown to be slightly decreasing with greater analyst following, but the growth rate was only calculated for one year and not on a long-term period.

Limitations

- Focus on firms that have existing analyst coverage
- Firm year observation only for 2019 & 2020
- Growth rate estimation over a small period
- Estimation could be extended on:
  - Ownership structure
  - Corporate governance environment
  - Level of disclosure
  - Country Fixed effects

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