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# WHICH FIRMS ARE COVERED BY FINANCIAL ANALYSTS?

CURRENT EVIDENCE FROM NON-U.S. FIRMS

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4<sup>th</sup> 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

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

where\*:

- $\text{analy\_folw\_ln}$  = log of number of analyst following a firm  $i$
- $\text{size\_ta}$  = log of total assets
- $\text{size\_employ}$  = number of employees
- $\text{cap\_expend}$  = capital expenditures to total assets
- $\text{rnd\_intens}$  = research & development cost to total assets
- $\text{liquidity}$  = current assets to current liabilities
- $\text{roa}$  = net income to total assets
- $\text{leverage}$  = difference between long-term debt and debt in current liabilities to stockholders' equity
- $(\text{revenue growth} = \text{revenue}_t \text{ to revenue}_{t-1} - 1)$
- $\mu$  for industry fixed effects (Fama-French 48 Industry Classification)

\* Refer to Lang et al. (2004), Asquith et al. (2005), Bradshaw et al. (2016).

## RESULTS (1/2)

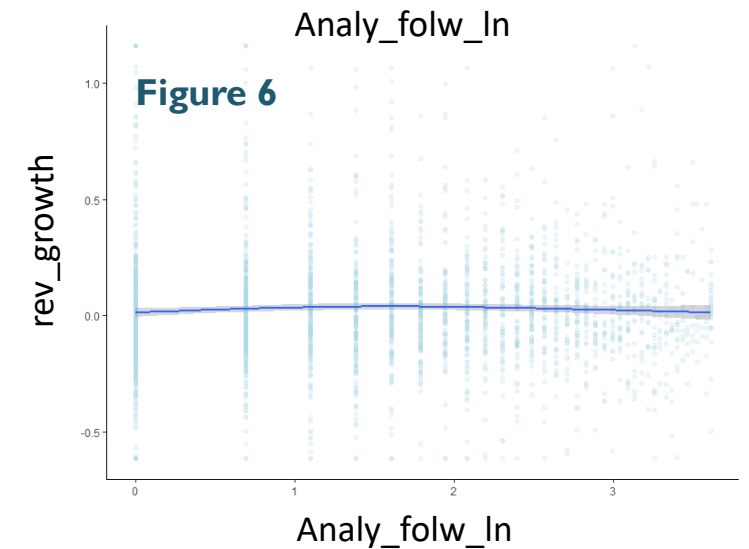
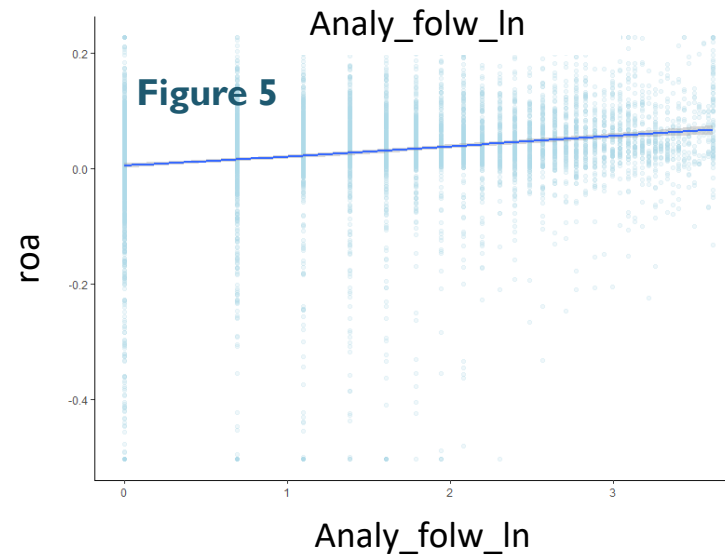
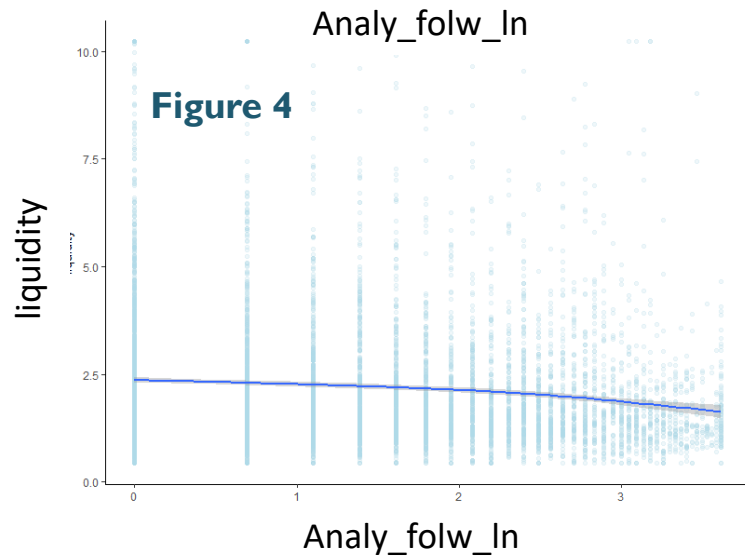
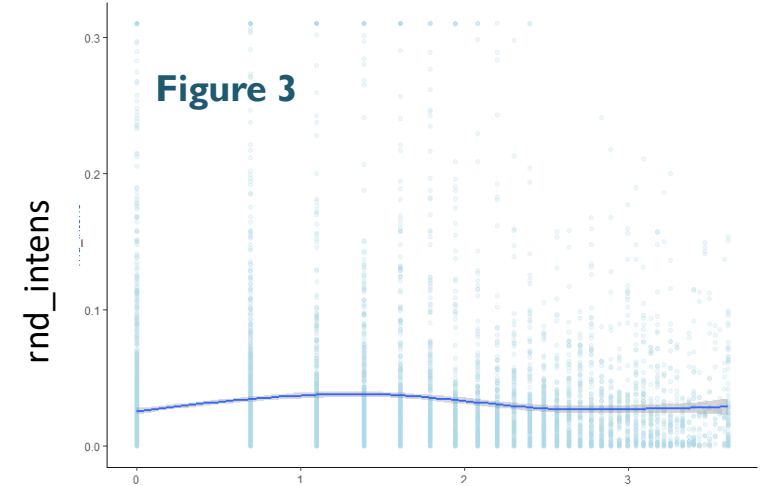
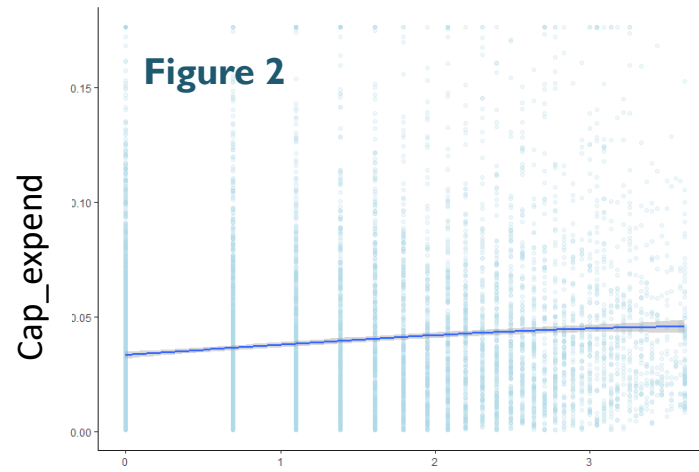
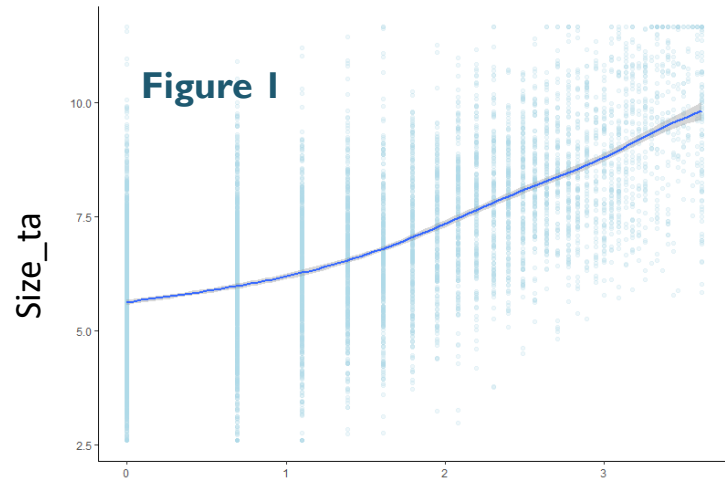
- Table I shows the results using an OLS regression analysis after excluding outliers.  
[R code: `ExPanD(df_sample_adj, cs_id = c("gvkey", "cname"))`]
- The results for analyst following were shown for both firm years 2019 and 2020, to show potential differentiation between the two observation years, 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, next slide) 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	<i>analyst_following</i>		
Variables	Full sample (1)	2019 (2)	2020 (3)
<i>size_ta</i>	0.401 *** (0.007)	0.392 *** (0.009)	0.411 *** (0.012)
<i>size_employ</i>	0.003 *** (0.001)	0.003 *** (0.001)	0.002 ** (0.001)
<i>cap_expend</i>	2.555 *** (0.284)	2.615 *** (0.352)	2.636 *** (0.488)
<i>rnd_intens</i>	5.197 *** (0.234)	5.245 *** (0.296)	5.131 *** (0.382)
<i>liquidity</i>	0.019 *** (0.006)	0.009 (0.008)	0.033 *** (0.010)
<i>roa</i>	1.774 *** (0.107)	2.118 *** (0.139)	1.283 *** (0.171)
<i>leverage</i>	0.168 *** (0.019)	0.167 *** (0.025)	0.164 *** (0.029)
<i>Observations</i>	7,136	4,475	2,661
<i>Industry Fixed Effects</i>	<i>ff48_ind</i>	<i>ff48_ind</i>	<i>ff48_ind</i>
R <sup>2</sup> (proj model)	0.496	0.503	0.478
Adj. R <sup>2</sup>	0.492	0.498	0.468

\* $p < 0.1$ ; \*\* $p < 0.05$ ; \*\*\* $p < 0.01$

## RESULTS (2/2)



# 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

## REFERENCES

- Asquith, P., Mikhail, M. B., and Au, A. S., 2005. Information content of equity analyst reports. *Journal of Financial Economics*, 75 (2), pp. 245-282.
- Bhushan, R., 1989. Firm characteristics and analyst following. *Journal of Accounting and Economics*, 11 (2-3), pp. 255-274.
- Bradshaw, M. , Ertimur, Y., and O'Brien, P. , 2016. Financial Analysts and Their Contribution to Well-Functioning Capital Markets, *Foundations and Trends in Accounting*, 11 (3), pp. 119-91.
- Lang, M. H., Lins, K.V., and Miller, D. P., 2004. Concentrated control, analyst following, and valuation: Do analysts matter most when investors are protected least? *Journal of Accounting Research*, 42 (3), pp. 589-623.
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