Big data availability and Asymmetric Voluntary Disclosures

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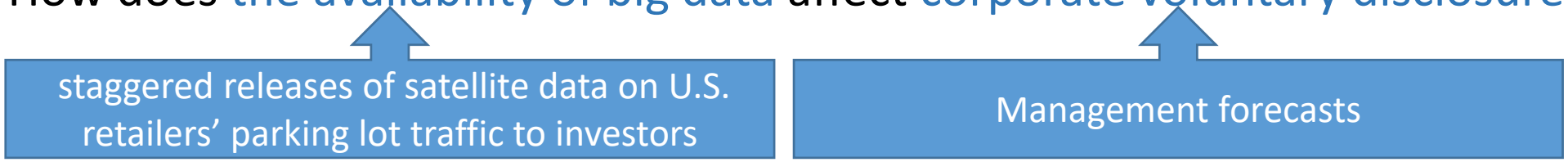
Summary

Great paper! Congrats on the R&R!

- **Research Question:**

  How does the availability of big data affect corporate voluntary disclosure?



- **Method:** Staggered DID. The availability of big data varies across firms, with treated firms being those that experienced the release of satellite data during the sample period.
- **Sample:** 2011-2018, US retail firms with satellite data.
- **Main Results:** Following the satellite data releases, good news forecasts decreased while bad news forecasts remained unaffected (+ show comprehensively how other determinants of voluntary disclosures interplay with big data availability).
- **Explanation:** meeting guidance hypothesis.

Summary

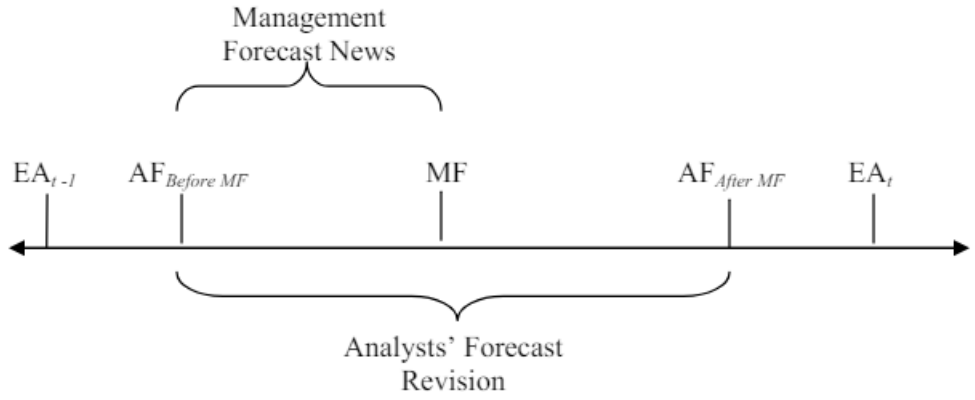
- The channel: meeting guidance hypothesis
  - Big data provides more precise information about firm future performance.
  - "asymmetric risk" for the managers to miss their own earnings guidance.
    - managers reduce good news disclosures due to the increased risk of missing their guidance as market expectations align with big data signals.

T1. What is the “Good News” (“Bad News”)?

- **Good news**

(relative measure)

A management EPS forecast is classified as good news if the point estimate, or the midpoint of the range forecast, is above the analyst consensus forecast before the management forecast.



EA_{t-1}	=	Earnings announcement for year *t-1*
$AF_{Before\ MF}$	=	Analysts' consensus forecast of year *t* earnings per share (EPS) before the management forecast.
MF	=	Management forecast of year *t* EPS.
$AF_{After\ MF}$	=	Analysts' consensus forecast of year *t* earnings per share (EPS) after the management forecast.
EA_t	=	Earnings announcement for year *t*
Analysts' Forecast Revision	=	$AF_{After\ MF}$ - $AF_{Before\ MF}$
Management Forecast News	=	MF - $AF_{Before\ MF}$

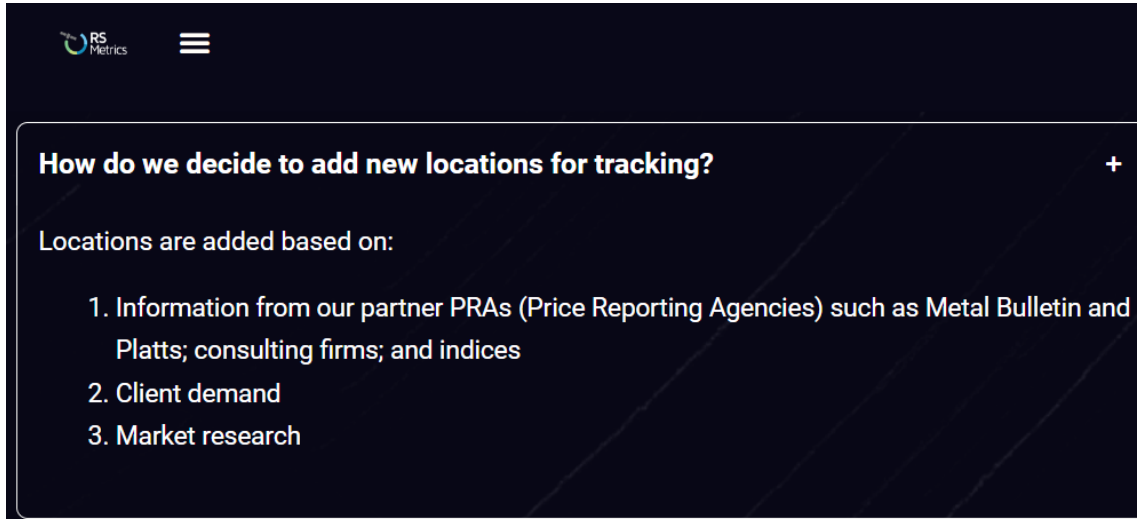
Figure 1 Earnings disclosure timeline Timeline source: Merkley et al. (2013 RAS)

T1. What is the “Good News” (“Bad News”)?

- Timeline: How to incorporate satellite data access into the timeline? Do analysts have access to satellite data?
- Managers respond to *influential* analyst’s forecasts (Zhou 2019).
  - When the influential analyst disagrees with the majority, managers are more willing to respond to the influential analyst.
- Section 5.2: GoodNews is a dummy that equals one if the firm’s traffic growth is above the median in that year (absolute measure).

T2. Satellite data: how representative?

- Satellite data from two major data vendors. How do data vendors decide which firms/locations to include?
  - RS Metrics (RS) is the first major data vendor (2011q1 -).
  - Orbital Insight (OB) is the most prominent competing data vendor (2015q2 – 2018q4).
  - In this paper, 142 unique retail firms. RS releases data for 48 firms and OB for 139 firms (45 firms are released by both data vendors).



T3. Other thoughts

- News report/market surprises?
- Big data availability and inequality.
  - The cost of big data is costly.
- Asymmetric forecasts research.
  - Sergeyev and Gorodnichenko (2024 WP): Zero Lower Bound on Inflation Expectations.

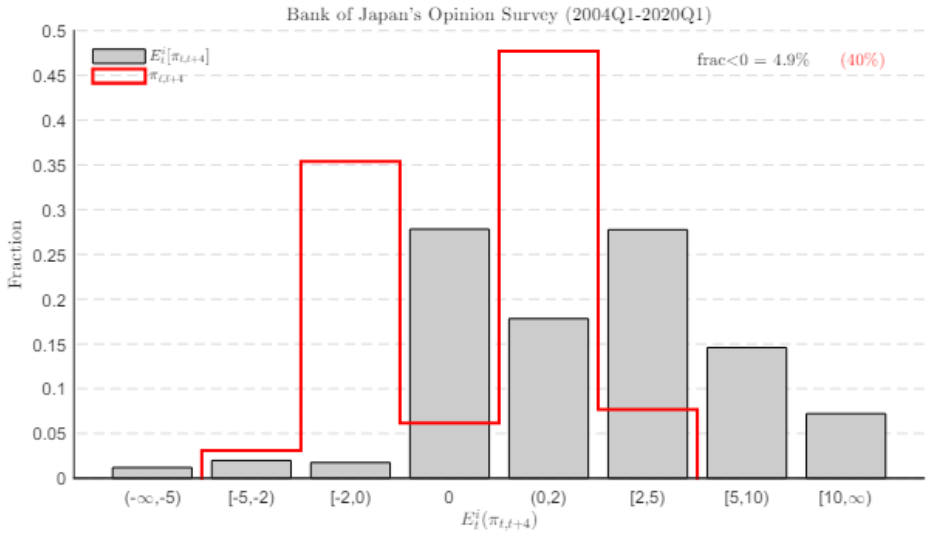


Figure 2: The histogram of realized CPI inflation (in red) and Bank of Japan's Opinion Survey one year ahead inflation expectations (in gray) between 2004Q1 and 2020Q1. The values of realized inflation in the interval [-0.2%;0.2%] are set to zero.

Conclusion

- Very interesting paper about big data availability!
- Looking forward to seeing it published!