

# A discussion of Firm Characteristics, Return Predictability, and Long-Run Abnormal Returns in Global Stock Markets

by Hendrik Bessembinder, Michael J. Cooper, Wei Jiao & Feng Zhang

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Yashar Barardehi disclaims responsibility for any comment from Gabriele Camara about this paper, even though Gabriele asked Yashar to communicate the following comment about this paper on the first slide:

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“Whatever Michael Cooper does is incorrect!”

## Summary

- Paper re-examines abnormal returns followed by corporate events:  
**Conclusion: no firm/event-specific explanations are required.**

- Bessembinder, Cooper, & Zhang (BCZ, 2019 *RFS*):

BCZ: Abnormal relative to what?

convention: relative to “peer” firms

BCZ: “peer” in what sense?

convention: pre-event key characteristics

BCZ: ... characteristics change post event, they predict returns!

- BCZ propose: use expected return reflecting recently observed characteristics as benchmark, rather than peer firms' returns.
  - With this adjustment, abnormal returns largely disappear in US data

# Summary

- This paper extends BCZ's work to international markets

**scope:** Events studied: initial & secondary stock issuances, stock repurchases, stock splits, dividend initiations, and M&As

**scale:** ~52,000 non-US firms across 58 countries

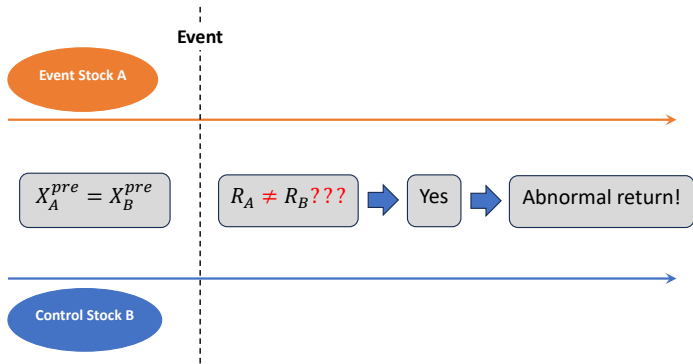
**variability:** ~75% of firms subject to at least one event

- Contribution:

- Out-of-sample test of BCZ and Lewellen ('15): ~~data snooping~~
- Speaks to global integration of financial markets
- Implications for corporate finance theory

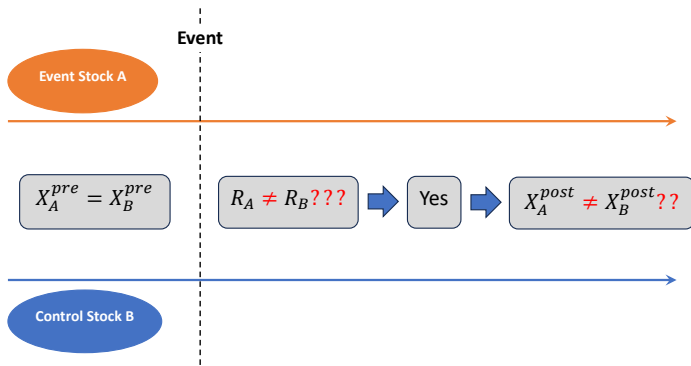
## My Interpretation of BCZ's Critique

- Conventionally, researchers match *event* firms with *control* firms based on *pre-event* characteristics.
- Then examine post-event return differences



## My Interpretation of BCZ's Critique

- However, *post-event* return differences may reflect *post-event* differences in characteristics.
- Lewellen ('15) shows characteristics predict returns





## BCZ's Method

- Fit each monthly return cross-section using 1<sup>st</sup> lag characteristics

$$R_{it} = \alpha_t + \beta_t X_{i,t-1} + \epsilon_{it}$$

- Construct expected returns using rolling averages  $\alpha$  and  $\beta$

$$E[R_{it}|I_{t-1}] = \frac{1}{12} \sum_{s=t-12}^{t-1} \hat{\alpha}_s + \left( \frac{1}{12} \sum_{s=t-12}^{t-1} \hat{\beta}_s \right) X_{i,t-1}$$

- Estimate return abnormality post events

$$R_{it} - E[R_{it}|I_{t-1}] = a + \sum_{k=1}^K b_k \times D_{itk} + u_{it}$$

- $b_k \neq 0$  signifies abnormal post-event return

# Functional Forms

- Core assumptions:
  - Why linear?
  - Why just use the 1<sup>st</sup>-lag characteristics?
  - Why weight past  $\hat{\alpha}$ 's and  $\hat{\beta}$ 's equally?
- Paper finds that the predictive power of local/global variables and stock characteristics vary across countries
- What if the functional forms also differ across countries?
- Some abnormal returns survive the new benchmark
  - Can this be due to a restrictive functional form?

# How Far Should a Data-Driven Approach Go?

**Paper:** Characteristics' return predictability reflects true economic forces

**My taste:** It is perfectly fine not worry about theoretical grounding

- Should the paper push harder on the data crunching front?
  - Is there value in “better” capturing economic forces?
  - Back to functional form issue
  - Why not use **machine learning**?

- Example:

$$E[R_{it}|I_{t-1}] = F(X_{i,t-1}^{t-K_t})$$

- Function  $F$  can involve interaction terms
- What is the correct  $K_t$ ? Change with time/country?
- Random Forest, Gradient Boost, etc.?

## Which Characteristics Matter?

- Some characteristics should change post event (?)
  - What are they? E.g., **market-cap** vs. **ROA**?
  - Some characteristics are by construction linked to returns
  - Is BCZ approach removing abnormal returns by controlling for this?
- It would be interesting to document that “abnormal” returns of event X reflect post-event changes in characteristics Y
  - Implications for corporate finance theories
  - Cross-country variation?

## Distributional Properties of Pre vs. Post Returns

- The model estimates effects on the average stock-month

$$R_{it} - E[R_{it}|I_{t-1}] = a + \sum_{k=1}^K b_k \times D_{itk} + u_{it}$$

- Would quantile regressions be interesting?
  - Relevant for the use of log returns
- Are there opposing price effects from pre- to post-event with the average effect  $b_k = 0$ ?
  - Examine the rankings of stocks by  $R_{it} - E[R_{it}|I_{t-1}]$  in pre- vs. post-event periods?
  - What do we learn?

# Conclusion

- 1 Interesting paper!
- 2 First comprehensive analysis of corporate events in a global setting
- 3 Highlights the relevance of the fundamental assumptions regarding identification abnormal returns following corporate events
- 4 Has potential to teach us more about the mechanism through which corporate events may impact firms