



Discussion on
**“Innovation and Informed Trading:
Evidence from Industry ETFs”**
by Huang, O’Hara, and Zhong

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Outline



- Summary
- Where does the paper fit in the literature?
- Why do investors short industry ETFs?
- Empirical design
- Alternative ways to hedge besides shorting industry ETFs
- Time trend



Summary

- ❑ Key message: industry ETFs provide convenience in hedging (shorting) industry risk, so that informed investors can trade more aggressively in their long positions
- ❑ Main Findings:
 - Long side: hedgability and the set of stocks that informed investors want to long (have ex-post positive realization)
 - ✓ Fund level: whether being an industry ETF
 - SIR and % of constituents that have positive earnings surprise in the next quarter
 - ✓ Stock level: whether being an industry ETF member
 - PEAD
 - How aggressive do HFs trade
 - Short side: short interest and future security return
 - ✓ Industry ETFs (positive)
 - ✓ Member stocks (negative)



Comment 1. Where does this paper fit in the literature

- Limits to arbitrage, long and short
 - We typically think short sale constraints inhibit the incorporation of negative information in stock prices, but there are no constraints to going long, therefore there is no such barrier for incorporation of positive news.
 - Miller (1977), Diamond and Verrecchia (1987), Scheinkman and Xiong (2003), Hong and Stein (2003)
 - A crucial but largely under-appreciated point - the short-sale constraints can actually impede incorporation of *positive* news, by limiting the hedging capacity of informed investors.
 - Related in the spirit - Hwang, Liu, and Xu (forthcoming)
 - In Hong Kong, only stocks on a designated short sale list can be shorted. Addition of new stocks to the list affects HFs' long positions in the same industry of the added stocks.
 - This paper: financial innovation can help to alleviate shorting/hedging constraints and improve information efficiency, on both long and short sides.



Comment 1. Where does this paper fit in the literature



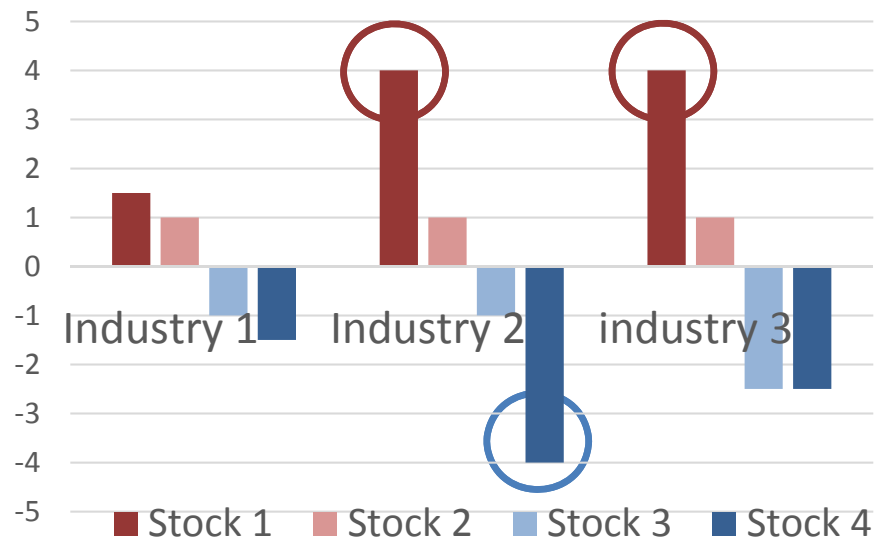
- Short-sale literature
 - A large literature on information in short interest, mostly for the own security
 - Establish a *positive* relation between short interest and future security return under certain circumstances.
- ETF/index investing literature



Comment 2. Why do investors short (industry) ETFs?

- ① Bearish bet on the entire sector (speculation motive)
- ② Hedging
Long the stock (bet)/short the ETF (hedge)
- ③ Synthetic shorting (Li and Zhu 2017)
bearish view on a particular stock
short the ETF/long the rest of the constituents

A more challenging task is to distinguish 2 and 3



- No particular view on the entire sector;
- Positive or negative info for certain constituents;
- Implies more diverged view/ex-post performance among all the constituents in the basket



Comment 3. Empirical design

- General suggestion:
 - Sharpen the predictions
 - Would be helpful to write an illustrative model
 - Help to clarify what predictions exactly are to be tested and the assumptions behind these tests
 - Help to derive the right metrics

Comment 3. Empirical design



- ① **Fund-level** test: the moderating role of **being an industry ETF** on the relation between *SIR* and *PosSUE* (Table 2)
 - ❑ *Findings*: industry ETF - positive relation
non industry ETF - negative relation
 - ❑ Where the “identification” come from?
 - Relying on the assumption that industry ETFs are more suitable for hedging, while synthetic shorts are indifferent in using industry or non-industry ETFs
 - How about the cost of shorting? If the shorting cost is lower for industry ETFs (higher AUM, higher vol), other shorts may still prefer to implement using industry ETFs
 - *Suggestion*: Match/control for proxies for shorting cost, such as liquidity and ivol; match # stocks in the basket

Comment 3. Empirical design



① **Fund-level** test: the moderating role of **being an industry ETF** on the relation between *SIR* and *PosSUE* (Table 2)

□ Y variable *PosSUE* = % constituents whose SUE are in the top 25% in the entire cross section

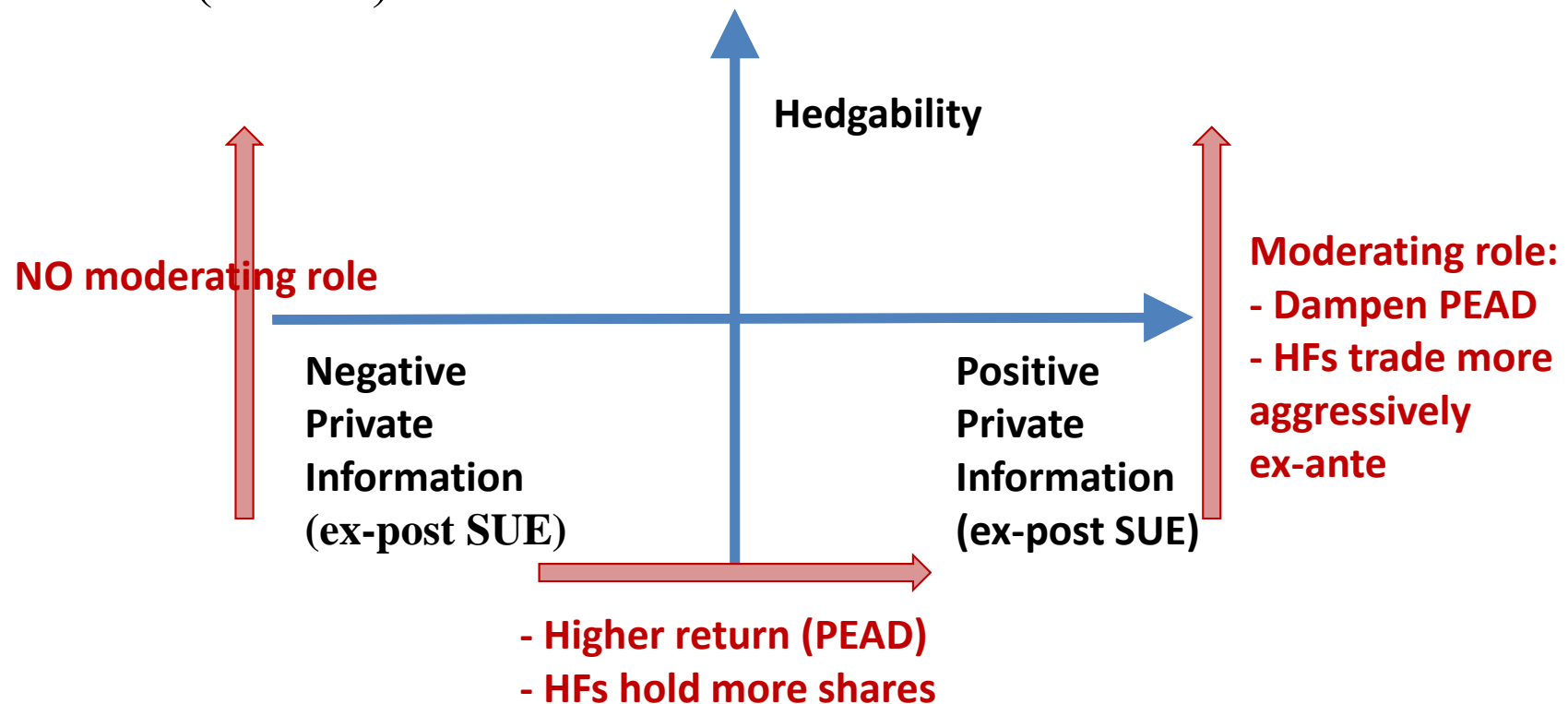
- Hedging → relative performance
- *PosSUE* captures both the relative performance (top – average) and the average industry performance
- A cleaner measure for relative performance:
for each ETF, purge out the industry component

$$SUE_{top\ stocks\ in\ the\ ind\ ETF} - SUE_{median\ stocks\ in\ the\ ETF}$$

Comment 3. Empirical design



- ② Firm-level test: the moderating role of being a member of an industry ETF on
- the relation between *SUE* and *CAR* (Table 3)
 - the relation between *SUE* and *ex-ante abnormal holdings* by *HFs* (Table 4)





Comment 3. Empirical design

- What is the right proxy for hedgability at firm level?
 - Industry ETF membership?
 - If two stocks have the same loading on industry return, they can be hedged in the same way using the industry ETFs, regardless of their ETF membership
 - Loading on industry?
$$r_i = \alpha_i + \beta_i^{mkt} r^{mkt} + \beta_i^{ind} r^{ind} + \varepsilon_i$$
 - May not be relevant neither. Within this linear framework, industry exposure can be hedged away completely, regardless of β_i^{ind}
 - Conjectured U-shaped relation between $corr(r_i, r_{ind})$ and the likelihood of being a target (Table 9)
 - Ivol: $vol(\varepsilon_i)$
 - Would be helpful to write down an illustrative model and clarify where the cross-sectional variation comes from

Comment 3. Empirical design



□ What is the right proxy for hedgability at firm level?

➤ $r_i = \alpha_i + \beta_i^{mkt} r^{mkt} + \beta_i^{ind} r^{ind} + \varepsilon_i$

□ Cross-section implication cross ETFs

- Industry ETFs: investment in the dominating industry > 1/3 of ETFs portfolio size
- Variation in tracking errors ($corr(r_{ind\ ETF}, r_{ind})$)
- ETFs with a smaller tracking error might be employed more in a hedging strategy



Comment 3. Empirical design



- ③ The relation between short interest (SIR) and future return:
 - industry ETFs: positive correlation
 - underlying stocks: negative correlation

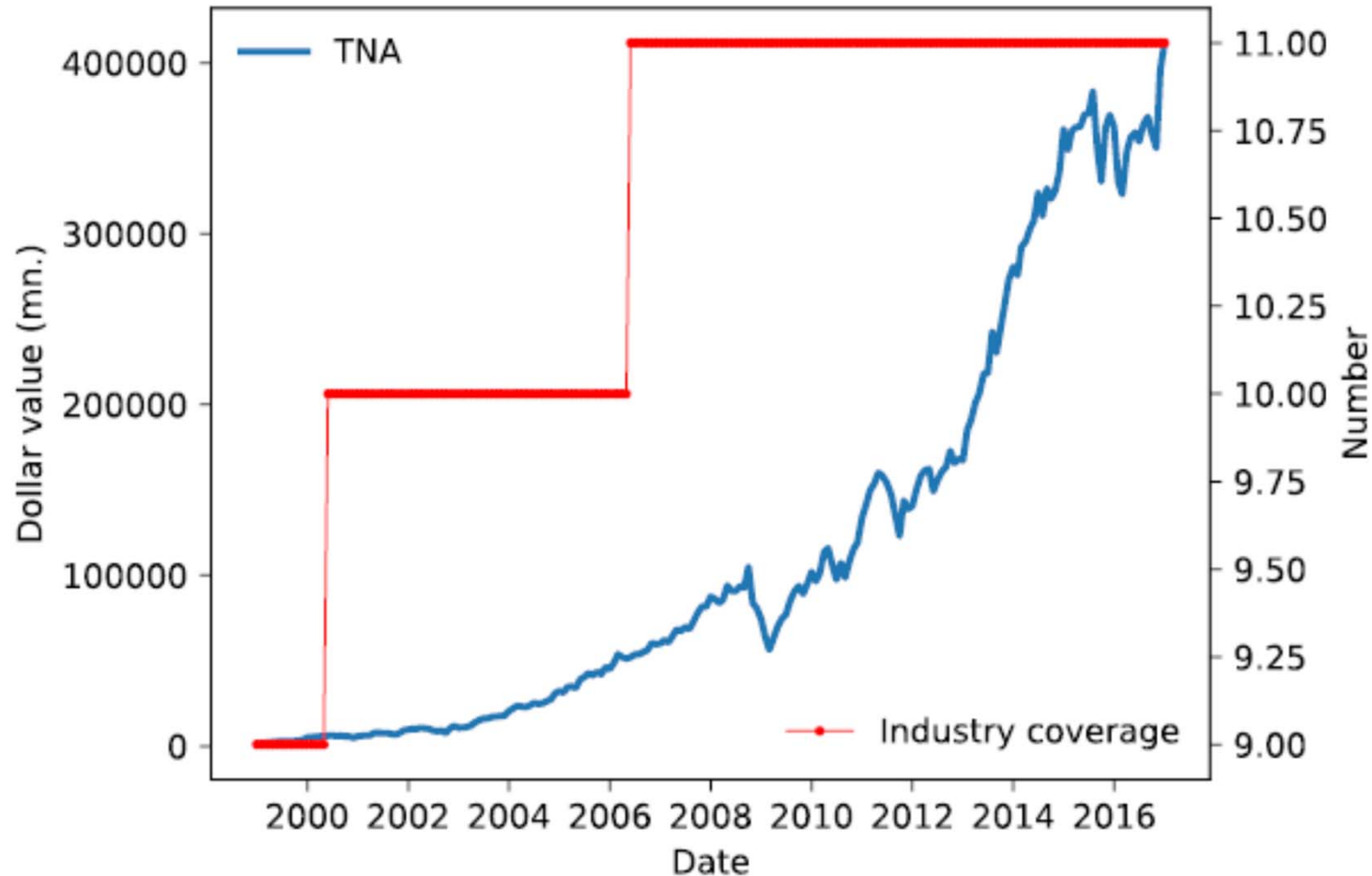
- This is a cool finding
- How plausible? ETF arbitrage?
- Would be nice to show the dynamics of the spread between ETF price and the price of the basket of constituents



Comment 4. Alternative shorting/hedging device

- ❑ If investor want to hedge against industry exposure, shorting industry ETFs is not the only way
- ❑ Alternatives:
 - Buying inverse ETFs
 - No need to involve margin
 - No loan fees
 - Using derivatives
 - Can be more flexible
- ❑ Can we find consistent evidence for these securities? How do investors make the choice?

Comment 5. Time Trend



- ❑ AUM increase from zero to 400 billion from 1998 to 2016
- ❑ It would be interesting to know how the efficacy varies over time (test power could be limited though)



Conclusions

- ❑ Overall a nice paper
- ❑ Delivers a crucial but largely overlooked insight
- ❑ A set of interesting empirical findings

- ❑ Suggest the authors to
 - Further distinguish hedging channel vs synthetic shorting
 - Sharpen the empirical design
 - Explore implications for other hedging channels and time trend