Is Proprietary Trading Detrimental to Retail Investors?

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Big Picture

- Retail investors increasingly responsible for own savings
- Financial literacy rates are low
- Financial advice has potential to overcome illiteracy...
- ... *but advice may be biased by conflicts of interest*
    - *Advisors:* **Hackethal**, Haliassos & Jappelli (2009); **Karabulut** (2010); **Mullainathan, Noeth & Schoar** (2011); Chalmers & **Reuter** (2011)
    - *Financial Analysts:* Malmendier and Shanthikumar (2007)
    - *Financial Media*: **Reuter** & Zitzewitz (2006); **Gurun & Butler** (2011)
- Fundamental problem faced by **investors**: *those most in need of advice are least able to evaluate its quality*
- Fundamental problem faced by **researchers**: *difficult to identify deviations from counterfactual portfolios*

Main Research Questions

- This paper uses data from a large number of German banks to test for conflict of interest between banks and their retail investors

1. Do retail investors buy the stocks **their** banks proprietary trading desks want to sell? (T4-12, T17-18)

   Bank Motive: *Crossing trades within bank hides private information from the market and reduces price impact*

2. Do the stocks that banks sell underperform? (T13, T14)

   Bank Motive: *Shifting low returns from proprietary trading desk onto retail clients*

If both answers are **YES** ➔ **BANKS ARE EVIL!**

Data

- From 12/2004 to 9/2009, researchers possess:
  - Proprietary quarterly holdings of **2047** banks
  - Aggregated quarterly holdings of each bank's retail investors (includes direct holdings; *excludes holdings through MFs*)
- Self-imposed limitations:
  - Focus on **102** banks with largest proprietary stock holdings ➔ *do not exploit C-S variation in size of proprietary holdings*
  - Focus on common stocks, which only account for **5.6%** of proprietary holdings within their sample ➔ *not necessarily focused on securities that banks focus on*
  - Require bank j and its retail investors to hold positive number of shares of stock *i* in quarters *t* and *t-1* ➔ *will miss any cases where bank sells and retail holdings remain 0*

Data (cont.)

- Other real world data limitations:
  - Do not observe trade dates
    - *Impossible to know if trades being crossed within bank*
    - *Makes it harder to interpretation fact that banks sell stocks with lower returns*
  - Do not observe transaction prices
    - *Impossible to know if trade prices deviate from market prices*
  - No smoking guns
    - *Because paper uses aggregate data on a large number of banks, impossible to link bank-specific broker incentives to investor behavior*

Do Banks Sell to Their Retail Investors?

- Want to determine whether **Retail 1** buys more than **Retail 2** when **Bank 1** sells more than **Bank 2**
- Estimate many variants of the following regression:

$$\Delta_{ijt}^{\text{Retail}} = \beta_1 \Delta_{ijt}^{\text{Bank}} + \beta_2 \left[\mathrm{I}_{\Delta_{ijt}^{\text{Bank}} < k} \right] + \beta_3 \left[\Delta_{ijt}^{\text{Bank}} \times \mathrm{I}_{\Delta_{ijt}^{\text{Bank}} < k} \right] + \gamma_j + \alpha_t + \varepsilon_{ijt}$$

- **T5:** Fact that $\Delta^{\text{Retail}} \geq 0$ when $\Delta^{\text{Bank}} > 0$ **and** $\Delta^{\text{Bank}} < 0$ helps rule out alternative explanation that institutions systematically take other side of retail trades
- Authors interpret $\beta_3 < 0$ as evidence that retail investors buy what bank wants to sells

Do Banks Sell to Their Retail Investors?

- Total effect of Δ^{Bank} depends on β_1, β_2, and β_3
- Because β_2 falls as **k** falls, *total effect is relatively flat ➔ retail sell slightly less when bank sells a lot more*

k	0%	-25%	-50%	-60%	-70%	-80%
β_1	0.001	0.004	0.005	0.005	0.005	0.006
β_2	-0.108	-0.147	-0.193	-0.233	-0.308	-0.316
β_3	-0.050	-0.134	-0.199	-0.242	-0.321	-0.332
Interaction @ k	**0.000**	**0.034**	**0.100**	**0.145**	**0.225**	**0.266**
Total Effect @ k	**-0.108**	**-0.114**	**-0.096**	**-0.091**	**-0.087**	**-0.055**

- Would benefit from better benchmark for retail trading:
  - *Control for **level** of retail trading at other banks*
  - *Better yet, add stock-by-quarter FEs*

Do Banks Sell to Their Retail Investors?

Other ways to study motive and mechanism:

- Do retail buy more of what banks sell when expected trading costs are higher? *Interact Δ^{Bank} with stock-level proxy for trading costs*

- Split sample. Find β_3 is more negative when bank has "asset management". *However, statistical evidence is weak. Better to look at holdings of affiliated mutual funds?*

Are Retail Investors Harmed?

- **T13 & T14**: The stocks that banks sell underperform other stocks **during** the quarter that they are sold
- Authors’ interpretation that banks sell “losers” requires banks to forecast abnormally low returns
  - *Do they have banking relationships with these firms?*
  - *Do they also engage in short selling?*
- **Alternative:** Banks sell after underperformance for window dressing reasons
- Lacking data on when trades occur within the quarter, authors should test for underperformance in **quarter after** retail investors buy

Net Cost to Retail Investors?

- **T15**: Should retail investors care if their bank has proprietary stock holdings?
  - Interesting attempt to measure net impact of proprietary-holding-driven-conflicts-of-interest on retail investor stock returns
  - Find retail investors earn lower abnormal returns on stock holdings at 63% of banks with proprietary stock holdings
  - *What fraction of retail holdings are stocks? What is difference in total portfolio returns (stocks plus bonds plus mutual funds)?*
  - *How do investors sort into banks? Do more literate investors choose banks without proprietary trading desks?*
  - *Are there any offsetting benefits to using banks with proprietary holdings?* ***Do they steal less from you in other ways?***

Variation in Strength of Conflict?

- **T16:** Should retail investors care if their bank has a relatively unprofitable proprietary trading desk?
  - **Hypothesis:** Shifting low returns onto retail clients is more attractive when proprietary trading profits are lower
  - Split sample and find β_3 is more negative when trading desk has below average profits
  - *Interesting result, especially since overall profitability of proprietary trading is unlikely to be driven by stock holdings*
  - *Unclear whether banks being reclassified each quarter (or year) based on changes in profitability. This would be my preference.*
  - *Unclear whether coefficients in the split samples are statistically distinguishable.*

Conclusion

- Terrific, timely research question
- Authors deserve credit for approaching the question from several angles
- Evidence is broadly consistent with the author's understated conclusion that:

  "banks breach their fiduciary duty and exploit their private customers by pushing them 'loser' stocks which they intend to dump from their own portfolios"
- However, more can be done to strengthen evidence that retail investors buy what banks sell, and that banks sell stocks that are about to underperform