# Understanding Retail Investors: Evidence from China

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Discussion by Darwin Choi



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Understanding Retail Investors

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#### **Retail Investors**

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  - Barber, Odean, and Zhu (2009), Kaniel et al. (2012), Kelley and Tetlock (2013), Boehmer et al. (2021): Retail investors correctly predict future returns and trade accordingly
  - Barber et al. (2021), Eaton et al. (2021), Welch (2021): Robinhood investors perform well and engage in attention-induced trading

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- Different subgroups of retail investors behave differently
- Using Chinese data, this paper examines the heterogeneity of retail investors

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  - Contribute 85% of daily trading volumes
  - Tens of millions of retail investors, accounting for the largest population of retail investors in the global market

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- This paper uses data from the Shanghai Stock Exchange
  - Trading and holdings data of 53m retail accounts in 2016-2019
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  - Categorized into 5 groups by account balances (RT1-RT5)
  - Also institutional investors (INST) and corporations (CORP)
- Small retail investors (RT1–RT4) negatively predict future returns, but large retail investors (RT5) and INST positively
  - Previous papers mostly treat retail investors as one group
  - Explanations: order flow persistence, liquidity provision, behavioral biases, and information (dis)advantages

# #1: The Grouping

To comply with regulatory requirements, all Chinese retail accounts are categorized into five groups by account balances: less than 100,000 CNY (RT1), between 100,000 and 500,000 CNY (RT2), between 500,000 and 3,000,000 CNY (RT3), between 3,000,000 and 10,000,000 CNY (RT4), and greater than 10,000,000 CNY (RT5).

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- The grouping is crucial: RT5 is very different from the rest
- Can the authors provide more information?
- What exactly are the regulatory requirements? Why 5 groups? How are the cutoffs determined? Do investors know? Are there any differential treatments from the exchange (say, RT5 receive some discount in trading fees)?

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  - Account balance is influenced by past performance and deposit/withdrawal

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- For investors whose balance is near 10m CNY (cutoff for RT5)
  - Those who performed well in RT4 move up to RT5
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- Retail investors deposit/withdraw money and cross the threshold
  - RT4 deposit/withdraw money and become RT5/RT3
  - Depositing and withdrawing can be a function of past performance/skill

- Why does order flow predict returns?
- Persistence, Liquidity, Behavioral Biases, Other (Information)

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| Dep.var             |          | Ret<br>OibRT1 | Ret<br>OibRT2 | Ret<br>OibRT3 | Ret<br>OibRT4 | Ret<br>OibRT5 |
|---------------------|----------|---------------|---------------|---------------|---------------|---------------|
| Oib.var             |          |               |               |               |               |               |
| Oib(-1.Persistence) | Estimate | -0.0333***    | -0.0279***    | -0.0220***    | 0.0022        | 0.0063***     |
|                     | [t-stat] | [-15.84]      | [-15.66]      | [-12.31]      | [0.40]        | [6.51]        |
| Oib(-1,Liquidity)   | Estimate | -0.0088***    | -0.0183***    | -0.0212***    | -0.0075       | -0.0020       |
|                     | [t-stat] | [-2.61]       | [-4.48]       | [-3.11]       | [-0.82]       | [-0.63]       |
| Oib(-1,Overconf)    | Estimate | -0.1024***    | -0.0407       | -0.0658       | -0.0151       | 0.0250        |
|                     | [t-stat] | [-2.84]       | [-0.73]       | [-1.09]       | [-0.30]       | [1.17]        |
| Oib(-1,Gamble)      | Estimate | -0.0422       | -0.0155       | -0.0627*      | 0.0205        | 0.0047        |
|                     | [t-stat] | [-1.49]       | [-0.63]       | [-1.94]       | [0.93]        | [0.23]        |
| Oib(-1,Other)       | Estimate | -0.0085***    | -0.0082***    | -0.0058***    | -0.0008***    | 0.0010***     |
|                     | [t-stat] | [-27.11]      | [-24.87]      | [-21.68]      | [-7.66]       | [13.15]       |
| Adj.R2              |          | 10.46%        | 10.32%        | 10.04%        | 9.60%         | 9.51%         |

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|---------------------|----------|--------|--------|--------|--------|--------|
| Oib.var             |          | OibRT1 | OibRT2 | OibRT3 | OibRT4 | OibRT5 |
| Oib(-1.Persistence) | Estimate | ***    | ***    | ***    |        | ***    |
|                     | [t-stat] |        |        |        |        |        |
| Oib(-1,Liquidity)   | Estimate | ***    | ***    | ***    |        |        |
|                     | [t-stat] |        |        |        |        |        |
| Oib(-1,Overconf)    | Estimate | ***    |        |        |        |        |
|                     | [t-stat] |        |        |        |        |        |
| Oib(-1,Gamble)      | Estimate |        |        |        |        |        |
|                     | [t-stat] |        |        | *      |        |        |
| Oib(-1,Other)       | Estimate | ***    | ***    | ***    | ***    | ***    |
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- Maximum daily returns as a proxy for gambling preferences can be affected by the 10% price limit

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- Investor Attention: Baidu Search Index (equivalent to Google Search Volume Index)
- Disposition Effect: A proxy for aggregate unrealized capital gains constructed from price and turnover data (Grinblatt and Han, JFE 2005)

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- Do RT5 trade against RT1-RT4 (a wealth transfer)?
- The information channel can be consistent with the following
  - For example, psychological and/or institutional frictions cause RT1-RT4 to hold stocks that are difficult to analyze
  - RT5 focus on stocks that are easier to analyze

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- Account balance: > 10m CNY, 235,000 accounts (0.4% of the total)
- Mostly male, age > 45
- Who are they? Why can they outperform?
- Finnish underaged accountholders are extremely successful at picking stocks (Berkman, Koch, and Westerholm, JF 2014)
- Can some RT5 be underaged investors?
- Or hedge fund managers managing other people's money?
- Do RT5 trade against RT1-RT4 (a wealth transfer)?
- The information channel can be consistent with the following
  - For example, psychological and/or institutional frictions cause RT1-RT4 to hold stocks that are difficult to analyze
  - RT5 focus on stocks that are easier to analyze
- Regress OibRT5<sub>i,d</sub> on OibRT1<sub>i,d</sub> OibRT4<sub>i,d</sub>; negative coefficients suggest that RT5 trade against RT1–RT4

- Very interesting paper and results!
  - Examine the heterogeneity of retail investors using a rich dataset
- I encourage the authors to think more about
  - The regulations regarding the grouping
  - The transition across groups (past performance and deposit/withdrawal)
  - Additional behavioral bias proxies
  - Who are the largest retail investors and why they can outperform