# Investor Behavior at the 52 Week High

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## MOTIVATION

The **52 Week High (52WH) Price** has been found to be a:

1. **Reliable return predictability factor** (George and Hwang, 2004; Bhootra and Hur, 2013)
2. **Volume spiking event** (Huddart, Lang and Yetman, 2009)
3. **Barrier for information integration** (Birru, 2013)
4. **Upper bound for skewness predictions** (Blau et al., 2018)
5. **Reference point for M&A activity** (Baker, Pan and Wurgler, 2012)

Despite the frequency of research the underlying cause of the 52WH is not well known.

## INTRODUCTION

- In the study we explain the source of the volume and returns as **household investors anchoring limit order sells to the 52 week high day.**
- We explore the trading between **households and institutions**. This household 52WH effect is the combination of disposition effect (selling of winners) and anchoring to the high price.
- We observe **households using limit order sells before and at the 52WH price**, resulting in strong post-event abnormal returns. The anchor of the 52WH becomes more salient with both uncertainty and newness.
- **The household behavior drives returns at the 5, 30 and 60 day level**. If we control for high household limit order selling the 52 week high no longer explains post even returns.

## RESEARCH QUESTIONS

1. Who is responsible for the observed trading volume at the 52 Week High?
2. What factors contribute/intensify this trading behavior?
3. How does this individual trading contribute to the post 52 Week High returns?

## DATA & KEY METRICS

Trades are directly from the Helsinki NASDAQ OMXH.

The data set contains trader and counter-party class identification (Household, Institution, other), time, quantity and direction of trade. Trade type obtained (market or limit order) using Lee and Ready (1991) algorithm.

$$52\ Week\ High\ Ratio = \frac{Price}{Highest\ Price\ over\ prior\ year}$$

$$Household\ Trade\ Imbalance^{*} = \frac{Household\ Net\ Buys}{Household\ Total\ Trades}$$

$$Household\ Taking\ Rate^{*} = \frac{Household\ Market\ Order\ Sells}{Household\ Total\ Sells}$$

*All trades are between households and institutions

## RESULTS

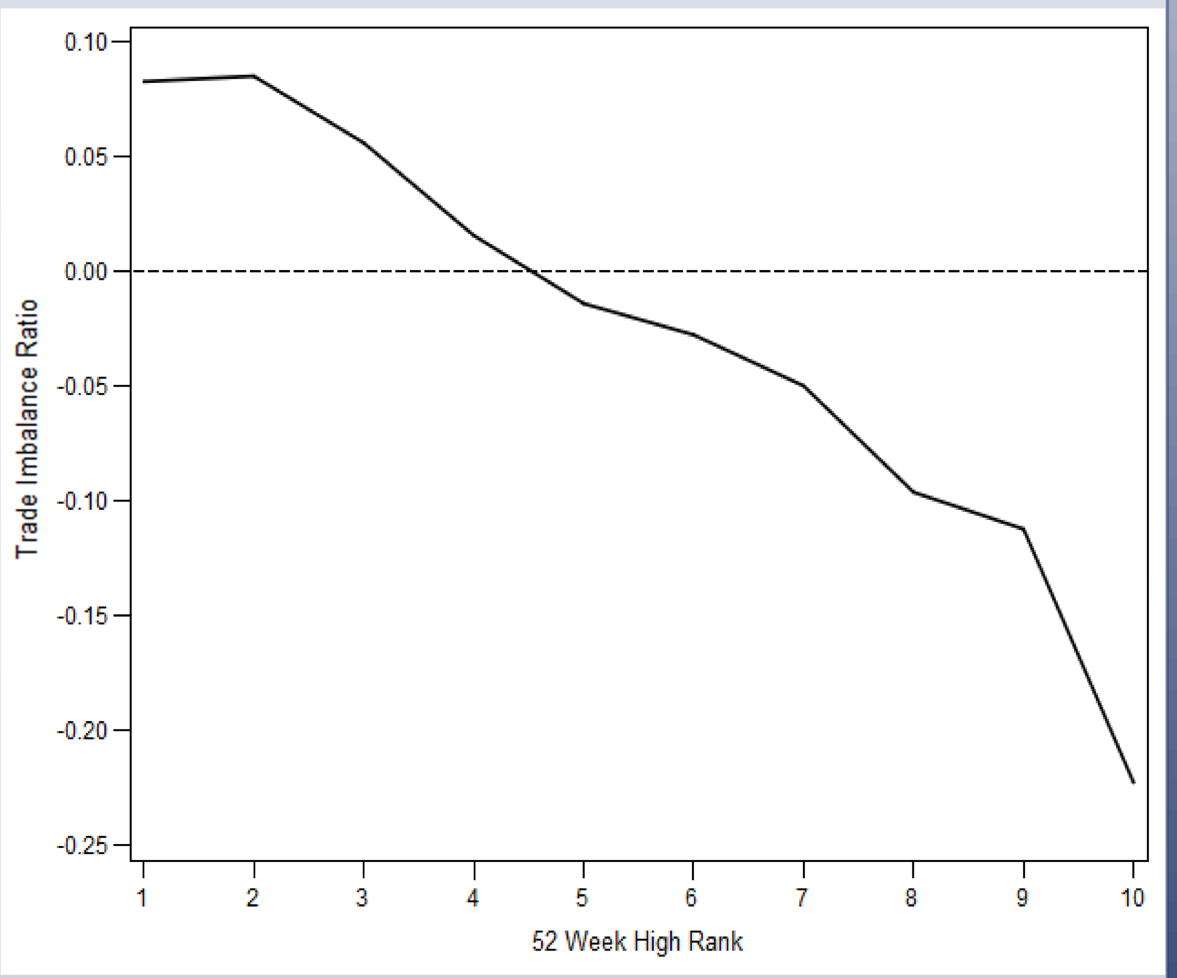


Figure 1: Household Trade Imbalance by 52 Week High Rank

## EVENT STUDY

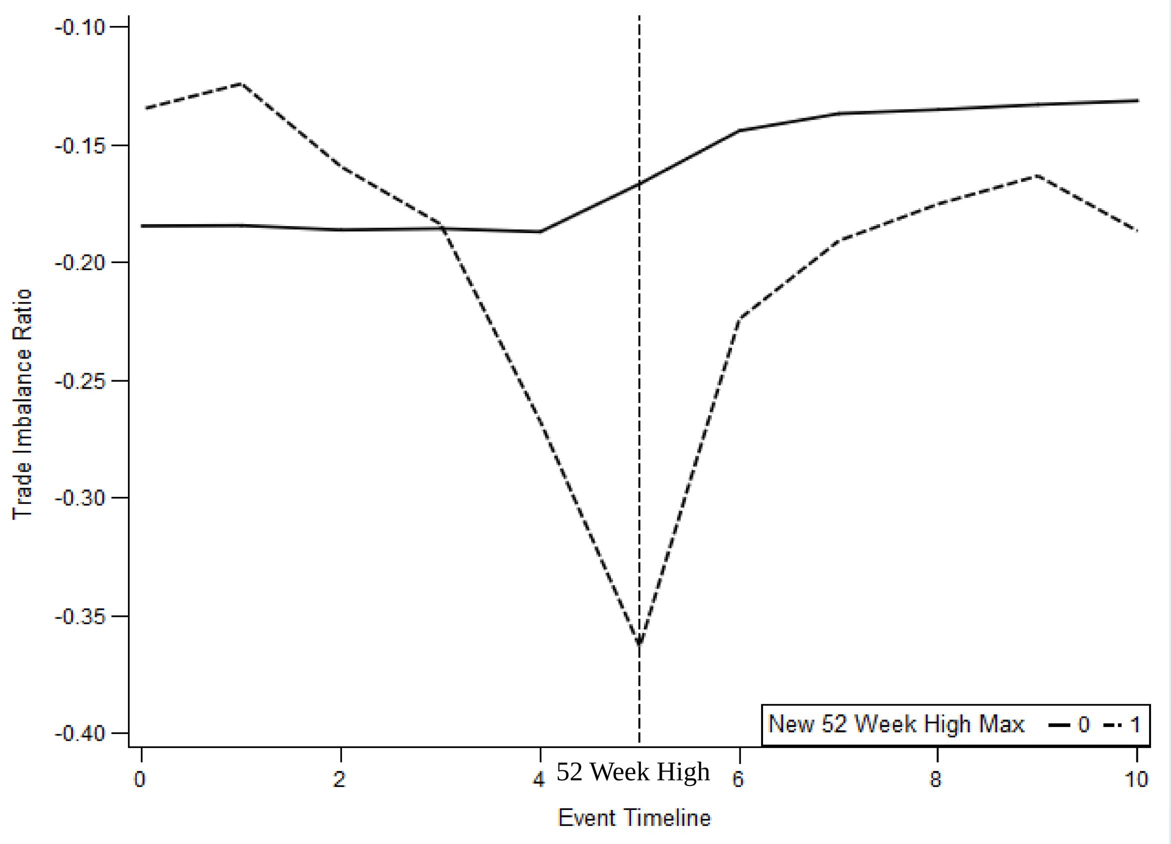


Figure 2: Household Trade Imbalance Ratio around the 52 Week High Day

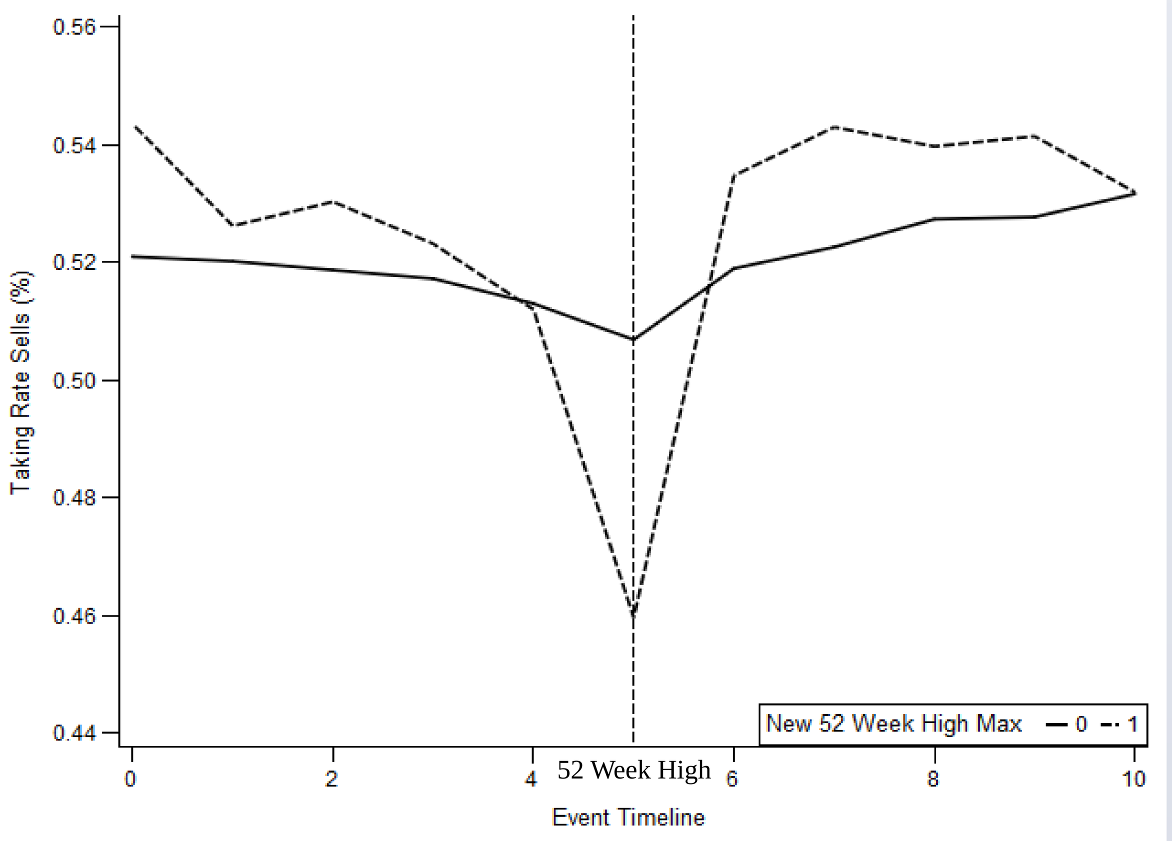


Figure 3: Household Taking Rate Sells around the 52 Week High Day

| | Dependent Varibale: Cumulative Abnormal Return 60 | | | | |
|---|---|---|---|---|---|
| | I | II | III | IV | V |
| Intercept | 1.879*** | 1.880*** | 1.814*** | 1.560*** | 1.496*** |
| | (22.39) | (22.40) | (20.91) | (20.14) | (18.61) |
| 52WH Indicator | 0.158*** | 0.165*** | 0.136*** | 0.122*** | 0.006 |
| | (8.70) | (8.93) | (6.92) | (7.42) | (0.31) |
| New 52WH Indicator | | -0.170** | | | |
| | | (-2.07) | | | |
| 52 Week High Ratio | | | 0.098*** | | |
| | | | (2.94) | | |
| Cumulative Trade Imbalance [t-5,t-1] | | | | 0.001 | |
| | | | | (0.13) | |
| Trade Imbalance | | | | 0.007 | |
| | | | | (0.28) | |
| Cumulative Trade Imbalance [t+5,t+1] | | | | -0.014* | |
| | | | | (-1.82) | |
| Taking Rate Sells | | | | | -0.079*** |
| | | | | | (-4.04) |
| Taking Rate Sells Low Quartile * 52 WH Indicator | | | | | 0.435*** |
| | | | | | (11.95) |
| Obs | 92737 | 92737 | 92737 | 92737 | 92737 |
| R-Square | 0.0058 | 0.0059 | 0.0059 | 0.0050 | 0.0075 |
| Adj R-Sq | 0.0058 | 0.0058 | 0.0059 | 0.0049 | 0.0074 |

Table 1: 60 Day Lead Cumulative Abnormal Returns Following the 52 Week High

## CONCLUSIONS

- We find that household investors undertake **disposition effect and anchoring behavior** around the 52WH price.
- They do so with **latent limit order selling**, which is intensified if the 52WH becomes more salient, either with newness or volatility.
- **This anchoring behavior is not costless**, as we show that there is strong post-event return continuation at the 5, 30 and 60 day time horizons - consistent with momentum-style returns.
- We show that through this bias **households provide liquidity for institutions** to open up momentum positions and generate post 52WH event returns.
- The **underlying cause** of the 52WH post event drift is **household limit order sells placed at the 52 week high**.
- When controlling for high household limit order selling, the 52WH itself no longer explains future returns.
- Follow on paper explores liquidity provision and price impact at 52WH.

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***Paper available via SSRN***