DO INSTITUTIONS FOLLOW THE HERD? EVIDENCE FROM IRAN

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Outline

The Question

- The ongoing research centers around examining the trading patterns of both Institutional and Individual investors within the Tehran Stock Exchange market.
- Specifically, I am asking whether these Institutions and Individuals tend to follow momentum or anti-momentum strategies when they trade.
- The focus is on Institutions because they're major players in the market, and naturally we expect them to make trades based on fundamentals.
- I am exploring momentum and anti-momentum strategies because of how they can influence market herding. This might push prices far from their real values and even lead to market bubbles.

Data

1. **TSE Stocks' Retruns**, *Daily*
2. **TSE Overall Index Returns (Market Return)**, *Daily*
3. **CBI Risk-Free Rate**, *Monthly*
4. **All Codal News (Letters)**, *Secondly*
   - Both before 1389 (1382 - 1389) and after 1389
5. **TSE Individual-Institutional Trade**, *Daily*
6. **TSE Stocks' Nominal Prices**, *Daily*
7. **TSE Stocks' Market Capitalization**, *Daily*

Methodology

This research has two stages:

1. The first stage revolves around the categorization of company-specific news as either positive or negative. These categorizations are needed based on their influence on trading patterns of both institutions and individuals.
2. In the subsequent stage, the labels assigned during the first phase are utilized to analyze the trading behavior of institutions and individuals within distinct and non-overlapping time frames.

More details are in the following slides.

Stage 1: News Labeling

Stage 1: Why News Are Important?

- Abundant evidence suggests that news pertaining to individual stocks, characterized as either "positive" or "negative," significantly impacts the trading choices made by investors.
- Any study or research design intending to analyze the trading behavior of investors of any type must take into account information related to companies.
- Regrettably, we currently lack a database containing company-specific news curated through assessments and opinions from expert capital market analysts.
- Creating such a dataset would significantly enhance the research landscape within the Tehran Stock Exchange market.

Stage 1: How I Solve The News Challenge?

- In the first stage, I suggest a method for categorizing stock-specific news as either "positive" or "negative".
- The labels generated during this initial stage are then employed in the second stage as dummy variables to account for the presence of "positive" and "negative" news associated with each individual stock.

Stage 1: Source of Firm-Specific News

- I rely on Codal for firm-specific news.
- I perceive every letter posted on Codal as a news item.
- In the context of Codal, any financial statement, report, PDF, or Excel document that is shared is regarded as a "Codal letter" within the Codal framework.
- Thankfully, each company-specific update on Codal is consistently linked to the respective company's ticker symbol. Each piece of content includes a ticker field.

Stage 1: How I Lebel News as Good or Bad?

To categorize news and systematically determine whether each stock-specific news is positive or negative, I follow this methodology:

- Using the adjusted returns data, for each firm-day pair I define a two month period prior to that day.
- Within this moving window, I assess the CAPM model (utilizing a rolling CAPM approach).
- By utilizing the CAPM betas, I compute the anticipated (expected) return for each specific firm-day.

Stage 1: How I Lebel News as Good or Bad? (Cont'd)

- Based on the calculated expected return in the previous step, I ascertain the Abnormal Returns for each given day.
- I combine the computed abnormal return data with the dataset containing news articles (letters sourced from Codal).
- Employing a symmetric threshold, I make determinations whether news should be classified as favorable or unfavorable.

A few Remarks:

- The outlined steps yield a dataset comprised of trios: firm, day, and corresponding news.
- I haven't detailed the precise procedure and meticulous considerations within this process.

Stage 2: Trading Behavior

Stage 2: What Measure We Are Searching For?

Stage 2: How to Measure Trading Activity?

To assess investors' purchasing and selling activities for stock i at time t, we analyze their excess buying ($XB_{i,t}$) and excess selling ($XS_{i,t}$) of the stock individually.

$$\mathrm{XB}_{i,t}^{G} = \mathrm{NB}_{i,t}^{G} - \mathbb{E}\left(\mathrm{NB}_{i,t}\right)$$
$$\mathrm{XS}_{i,t}^{G} = \mathrm{NS}_{i,t}^{G} - \mathbb{E}\left(\mathrm{NS}_{i,t}\right)$$

Where:

$$\mathrm{G} \in \{\textit{Institution}, \textit{Individual}\}$$

$$\mathrm{NB}_{i,t}^{G} = \frac{\mathrm{Buy}_{i,t}^{G} - \mathrm{Sell}_{i,t}^{G}}{\mathrm{Buy}_{i,t}^{G} + \mathrm{Sell}_{i,t}^{G}}$$

$$\mathrm{NS}_{i,t}^{G} = \frac{\mathrm{Sell}_{i,t}^{G} - \mathrm{Buy}_{i,t}^{G}}{\mathrm{Buy}_{i,t}^{G} + \mathrm{Sell}_{i,t}^{G}}$$

Stage 1: Results

News Type	Freq.	Percent	Cum.
Bad	25,703	44.78	44.78
Good	25,621	44.64	89.42
Neutral	6,075	10.58	100.00
Total	57,399	100.00	

Second Stage Results: Main Result

	Institutions		Individuals	
	Buy	Sell	Buy	Sell
$R(-1)$	-1.842***	1.755***	0.550***	-0.550***
	(0.08)	(0.09)	(0.03)	(0.03)
$R(-2,-5)$	0.046*	-0.083***	-0.006	-0.003
	(0.03)	(0.02)	(0.01)	(0.01)
$R(-6,-27)$	0.053***	-0.049***	-0.028***	0.024***
	(0.01)	(0.01)	(0.00)	(0.00)
$R(-28,-119)$	0.007*	-0.012***	-0.006***	0.005***
	(0.00)	(0.00)	(0.00)	(0.00)
Mentioned FEs	YES	YES	YES	YES
N. of Unique Firms	742	742	742	742
R^2	0.9%	0.9%	0.5%	0.4%
NObs	1,133,473	1,133,473	1,133,473	1,133,473