

MACRO HERD BEHAVIOUR AND THE SIZE EFFECT: A COMPARATIVE ANALYSIS BETWEEN SHARIA (ISSI) AND NON-SHARIA STOCKS IN INDONESIA

COMPORTAMENTO DE MANADA EM NÍVEL MACRO E O EFEITO DO TAMANHO: UMA ANÁLISE COMPARATIVA ENTRE AÇÕES ISSI (SHARIA) E AÇÕES NÃO ISSI NA INDONÉSIA

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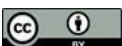
The authors declare that there is no conflict of interest

Abstract

This research employs the Tessler and Venezia Herding Model (2022) to investigate macro-level herding behavior in the Indonesian Stock Market (IHSG) using weekly stock price data for all IDX-listed companies over the 2011–2024 period. The analysis adopts a comparative framework, examining patterns across the overall IHSG, as well as the ISSI and Non-ISSI subsamples. The findings reveal clear evidence of macro herding in the IHSG, particularly during extreme market conditions. In addition, the results show significant differences in the intensity of herding between the ISSI and Non-ISSI segments, while the effect of Market Capitalization (Size Effect) also varies across these groups. The contribution of this study lies in its application of the Tessler and Venezia Model (2022) within the Indonesian context, combined with a comparative assessment of herding behavior and the Size Effect in a dual market structure. Overall, the study underscores the importance of Sharia compliance and firm size as key factors shaping collective investor behavior, with meaningful implications for regulators (OJK) and market participants.

Resumo

Esta pesquisa utiliza o Modelo de Comportamento Gregário de Tessler e Venezia (2022) para investigar o comportamento gregário em nível macro no Mercado de Ações da Indonésia (IHSG), utilizando dados semanais de preços de ações de todas as empresas listadas na IDX no período de 2011 a 2024. A análise adota uma abordagem comparativa, examinando padrões no IHSG como um todo, bem como nas subamostras ISSI e Não-ISSI. Os resultados revelam evidências claras de comportamento gregário em nível macro no IHSG, particularmente durante condições extremas de mercado. Além disso, os resultados mostram diferenças significativas na intensidade do comportamento gregário entre os segmentos ISSI e Não-ISSI, enquanto o efeito da capitalização de mercado (Efeito de Tamanho) também varia entre esses grupos. A contribuição deste estudo reside na aplicação do Modelo de Tessler e Venezia (2022) no contexto indonésio, combinada com uma avaliação comparativa do comportamento de herding e do Efeito de Tamanho em uma estrutura de mercado dual. De modo geral, o estudo ressalta a importância da conformidade com a Sharia e do tamanho da empresa como fatores-chave que moldam o comportamento coletivo dos investidores, com



Keywords: Herd Behaviour. Macro Herding. Sharia. Non-Sharia. Tessler & Venezia (TV) Method. Market Capitalization.

implicações significativas para os reguladores (OJK) e os participantes do mercado.

Palavras-chave: *Comportamento de Manada. Comportamento de Manada Macro. Sharia. Não-Sharia. Método de Tessler & Venezia (TV). Capitalização de Mercado.*

1 INTRODUCTION

Stock price dynamics do not always reflect efficiency, as they are frequently driven by behavioral factors such as emotions and investor sentiment (Shefrin, 2005). As a result, various market anomalies emerge, one of which is herding behavior, where investors collectively follow the actions of others without conducting analysis by self before. Despite these inefficiencies, the capital market continues as a financial intermediary.

This study emphasizes Macro Herding, characterized by synchronized investor movements across the entire market, which can lead to heightened volatility and significant price distortions (Venezia *et al.*, 2011). While earlier research has predominantly relied on the CSAD Model, this study argues that such an approach is constrained by underlying assumptions. Accordingly, it adopts Tessler and Venezia Herding Model (2022), which offers a more robust approach by focusing on stock return synchronicity without relying on traditional asset pricing assumptions.

IHSG provides a particularly relevant context for examining herding behavior, driven by the strong presence of retail investors and its dual structure consisting of ISSI stocks. Within this framework, ISSI and Non-ISSI equities exhibit substantial differences in characteristics, investor composition, and compliance principles. Building on these distinctions, this study offers a novel contribution through a comparative analysis of macro herding patterns and the influence of Market Capitalization (Size Effect) across ISSI and Non-ISSI sub-samples.

This study is designed to investigate macro herding behavior by: (1) identifying its existence and patterns within the overall IHSG; (2) comparing the intensity of general macro herding between ISSI and Non-ISSI segments; and (3) evaluating Market Capitalization on herding across these sub-samples. By integrating the Tessler and

Venezia Model (2022) with a comparative approach to herding and the Size Effect in Indonesia's dual market structure, this research offers a distinct contribution. The results provide valuable insights for regulators (OJK) in safeguarding market stability, as well as for investors in refining strategies and improving risk management.

2 LITERATUR REVIEW

2.1 Herding behaviour and macro herding

Herding behavior represents a central concept in behavioral finance, where investment decisions are shaped not only by fundamental analysis but also by social influence, psychological biases, and reputational considerations. Under conditions of uncertainty, investors are more likely to follow the majority to gain a sense of safety, even if this leads to collectively accepted decision errors (Daxhammer *et al.*, 2023). Within financial markets, herding may occur unintentionally through similar responses to shared information or intentionally, when investors deliberately mimic those perceived as more knowledgeable or experienced (Venezia *et al.*, 2011). This behavior is generally driven by two key mechanisms. The first is the informational cascade, where individuals ignore their own private information in favor of signals derived from the crowd. The second involves reputational incentives, where professional investors align with prevailing market consensus to safeguard their credibility (Bikhchandani & Sharma, 2001). Focusing on macro herding, this study examines a form of joint behavior in investors across the market move in the same direction across many stocks. This phenomenon typically intensifies during periods of elevated uncertainty or market stress, when investors are more inclined to follow dominant trends rather than rely on independent judgment, ultimately heightening systemic risk (Bookstaber, 2007). Accordingly, this study proposes that herding intensity is systematic rather than random, escalating under particular market conditions especially when returns exhibit sharp increases or declines.

H1: Macro herding exists in IHSG with stronger intensity observed during extreme market conditions.

2.2 Herding measurement model and justification of the Tessler and Venezia model (2022)

Recent developments in macro herding research show a shift from traditional dispersion-based approaches to more dynamic and flexible models. Earlier studies mainly relied on two key methods: (Christie & Huang, 1995) model, which examines herding through return dispersion during extreme market conditions, and Cross-Sectional Absolute Deviation (CSAD) model by (Chang *et al.*, 2000), which detects herding based on a negative non-linear relationship between return dispersion and squared market returns. Although the CSAD model is relatively simple to apply, it has an important limitation—it depends on the strict assumptions of the Capital Asset Pricing Model (CAPM). In real market conditions, these assumptions often do not hold, which can lead to biased or less reliable herding measurements (Tessler & Venezia, 2022). To address these issues, this study adopts a more recent approach developed by Tessler and Venezia (2022). Instead of focusing on return dispersion, this model views herding as the co-movement of dynamic beta coefficients. In other words, it analyzes how stock sensitivities to the market evolve over time. The method involves two main steps: first, estimating dynamic betas using rolling regression to capture time-varying stock behavior; and second, testing for beta convergence across groups of stocks. Herding is identified when, under extreme market conditions, the differences in beta values across stocks become smaller or disappear. By focusing on dynamic beta and avoiding reliance on strict theoretical assumptions like CAPM, this model provides a more robust and realistic way to capture macro herding behavior in financial markets.

2.3 Herding and size effect (market capitalization)

Firm size is widely regarded as a key determinant influencing the intensity of herding behavior. Prior studies indicate that herding is closely linked to firm-specific information, particularly in companies with lower transparency or higher levels of information asymmetry (Padungsaksawasdi, 2020). Such conditions are more commonly associated with small-cap firms, where limited access to reliable information may encourage investors to rely on collective market actions rather than independent analysis.

However, more recent empirical evidence presents contrasting results, suggesting that herding can be more pronounced in large-cap stocks. This pattern is often attributed to the dominant presence of institutional investors in large-cap firms (Ackert, 2010). Their investment decisions tend to be aligned due to similar strategies, reputational considerations, and professional herd behavior, leading to synchronized responses to macroeconomic signals. This observation is further supported by findings from (Erdős & Várkonyi, 2024) in the market of Germany. Within the Indonesian capital market, the Size Effect remains an important and compelling issue for further investigation. So, our hypothesis are:

H2: Market capitalization affects macro herding differently across ISSI and Non-ISSI groups.

2.4 Sharia stocks (ISSI), market characteristics, and the implications for herding

Indonesian capital market is characterized by a distinctive dual structure, reflected in the presence of ISSI. Stocks included in the ISSI undergo strict Sharia screening by DSN-MUI and OJK, resulting in a more conservative portfolio that excludes high-risk sectors. From a theoretical perspective, the principles of risk-sharing and ethical finance in Islamic economics (Mirakhor & Iqbal, 2011) contribute to different market dynamics, where Sharia-compliant stocks tend to display lower volatility and greater resilience during periods of crisis compared to conventional stocks. These differences are closely linked to the profile of Sharia investors, who are generally more conservative, long-term oriented, and less driven by speculative motives than their non-Sharia counterparts. Such characteristics are expected to have important implications for macro herding behavior. Size Effect also may operate differently across these segments. In large-cap ISSI stocks, herding may arise from uniform screening and investment decisions by Sharia-compliant institutions, whereas in Non-ISSI stocks, it may be more influenced by liquidation pressures and behavioral responses of conventional investors. Therefore, we proposed hypothesis:

H3: Macro herding intensity differs significantly between ISSI and Non-ISSI.

3 DATA AND METHODOLOGY

3.1 Research design and type

This research utilizes a quantitative approach that integrates comparative analysis with descriptive-explanatory techniques. It is designed to examine both causal and correlational relationships associated with macro herding by employing time-series stock price data. The analysis is built on the Tessler and Venezia Macro Herding Model (2022), which is chosen because it can better capture dynamic beta and avoid the limitations of traditional models that rely heavily on theoretical asset pricing assumptions. To get a clearer picture, the study compares results across three groups: the overall IHSG, the ISSI sub-sample, and the Non-ISSI sub-sample.

3.2 Data, population, and sample criteria

The study population includes all companies actively traded on IDX. The primary observation period for analyzing macro herding spans 2011–2024, beginning from the official implementation of ISSI. However, the dataset spans a longer period, from 2005 to 2024, where the 2005–2010 period functions as a burn-in phase to ensure more reliable initial dynamic beta estimation through rolling regression.

Samples were selected using a purposive sampling technique based on weekly closing prices and Market Capitalization data. The main criteria applied are: (1) stocks are required to have at least 706 weeks of active trading data within the observation period; and (2) average weekly closing price must be higher than Rp50. These criteria are designed to reduce bias caused by illiquid or very low-priced stocks that may distort the estimation of dynamic beta coefficients.

Within the dual market framework, ISSI and Non-ISSI samples are treated as time-varying, meaning each stock's Sharia status is updated weekly based on its inclusion or exclusion from the ISSI. As a result, total observations in ISSI and Non-ISSI groups combined ends up exceeding in IHSG sample.

3.3 Operational definition of variables and measurement

This subsection breaks down how the theoretical concepts are turned into measurable variables using the Tessler and Venezia Model (2022). The main independent variables are Extreme Market Conditions—captured using market returns in the upper and lower quantiles—and Firm Size (Market Capitalization), which is categorized using a dummy variable based on the annual median. The dependent variable in this study is Macro Herding (H_t). Stock returns (R_i) and market returns (R_m) are calculated using weekly simple returns, where R_m is the average of all stock returns in the same week. To measure herding, the study uses the Proportion of Up Stocks (U_t), which is basically the share of stocks that experience price increases out of the total observed stocks. This value is then compared to its expected value (\hat{U}_t), assuming that stock movements are independent. The herding measure (H_t) is calculated as the absolute difference between U_t and \hat{U}_t , adjusted for bias due to limited observations. If H_t is statistically significant, it indicates the presence of macro herding in the market. (The full formulas are provided in Table 1.)

Table 1

Measurement of Macro Herding Variables (Tessler and Venezia Model, 2022)

Description	Definition	Equation
U_t	Proportion of stocks that recorded price increases in week t .	$U_t = \frac{n_t^{up}}{n_t}$
\bar{U}_t	The “normal” proportion of rising stocks, computed as the average over a rolling window of t previous trading weeks.	$\bar{U}_t = \frac{1}{T} \sum_{t=0}^{t-1} U_t$
H_t	The variable that captures the absolute difference between the observed proportion of rising stocks U_t and its expected “normal” level \bar{U}_t	$H_t = U_t - \bar{U}_t - \sqrt{\frac{2\bar{U}_t(1 - \bar{U}_t)}{\pi n_t}}$

3.4 Econometric testing model

The econometric framework consists of two primary stages. First, estimating dynamic beta using rolling regression, so we can see how stock sensitivity changes over time. Next, testing macro herding by regressing H_t on extreme market conditions and

Market Capitalization. Hypotheses (H1, H2, and H3) are evaluated through regression coefficients and comparisons between ISSI and Non-ISSI groups.

4 RESEARCH RESULTS AND FINDINGS

4.1 Descriptive statistics

Looking at the Table 2, the average portfolio return is 0.43% with a standard deviation of 3.08%. This indicates moderate market fluctuations, but with an overall upward trend during the observation period. On average, about 39.08% of stocks increased in price each week (SD = 10.63%). The distribution is slightly left-skewed (mean higher than median), suggesting that herding behavior becomes more noticeable under certain conditions, especially when market volatility increases.

Table 2

Descriptive Statistics of IHSG

Variable	N	Mean	SD	Min	Median	Max
Number of shares	1003	142	96	0	121	587
The return of the equally-weighted market portfolio (%)	1003	0,0043	0,0308	-0,1618	0,0054	0,4378
Fraction of stocks whose prices rise U_t (%)	1003	0,3877	0,1514	0,0000	0,3880	0,8619
Average proportion of rising stocks $U_t(\hat{h})$ (%)	1003	0,3908	0,0163	0,3617	0,3885	0,4416
Herding measure H_t (%)	1003	0,0795	0,0837	-0,0314	0,0628	0,4202

Table 3 inform the average return in the Sharia market is slightly higher at 0.221%, compared to 0.211% in the non-Sharia market, while both have the same standard deviation of 1.477%. One interesting point is that average herding measure (H_t) is a bit higher in the Sharia segment (5.993%) than in the non-Sharia segment (5.233%). Overall, macro herding appears in both markets, though with varying intensity, with Sharia segment displaying more uniform.

Table 3*Descriptive Statistics of ISSI and Non-ISSI*

Variable	SHARIA						NON SHARIA					
	N	Mean	SD	Min	Median	Max	N	Mean	SD	Min	Median	Max
Number of shares	754	369	127	154	154	617	754	206,588	53,326	108	185,5	303
The return of the equally-weighted market portfolio (%)	754	0,221	1,477	-8,545	0,280	4,651	754	0,211	1,477	-6,706	0,251	6,284
Fraction of stocks whose prices rise Ut(%)	754	40,415	11,757	5,364	40,923	76,190	754	38,151	10,930	5,369	38,143	71,895
Average proportion of rising stocks Ut(hat) (%)	754	39,611	0,917	37,239	39,645	41,647	754	37,468	0,847	35,446	37,623	39,036
Herding measure Ht (%)	754	5,993	6,613	-3,131	4,658	34,341	754	5,233	5,986	-3,092	4,348	27,513

Macro herding is present in both markets, but it manifests differently. Sharia segment reflects more uniform and cautious investor behavior, whereas the conventional market shows more active and speculative dynamics cause largely influenced by institutional investors and volatility.

4.2 Herd behaviour in the IHSG and between Sharia and Non-Sharia stock indices

The results of Hypothesis 1 (H1) testing for the Total IHSG (Table 4) indicate that the average herding magnitude (Ht) reaches 0.1163%. This finding confirms the existence of a positive and statistically significant herding tendency in the Indonesian stock market throughout the study period.

Table 4

The relationship between average weekly market return and average weekly herding measure on IHSG Indonesia

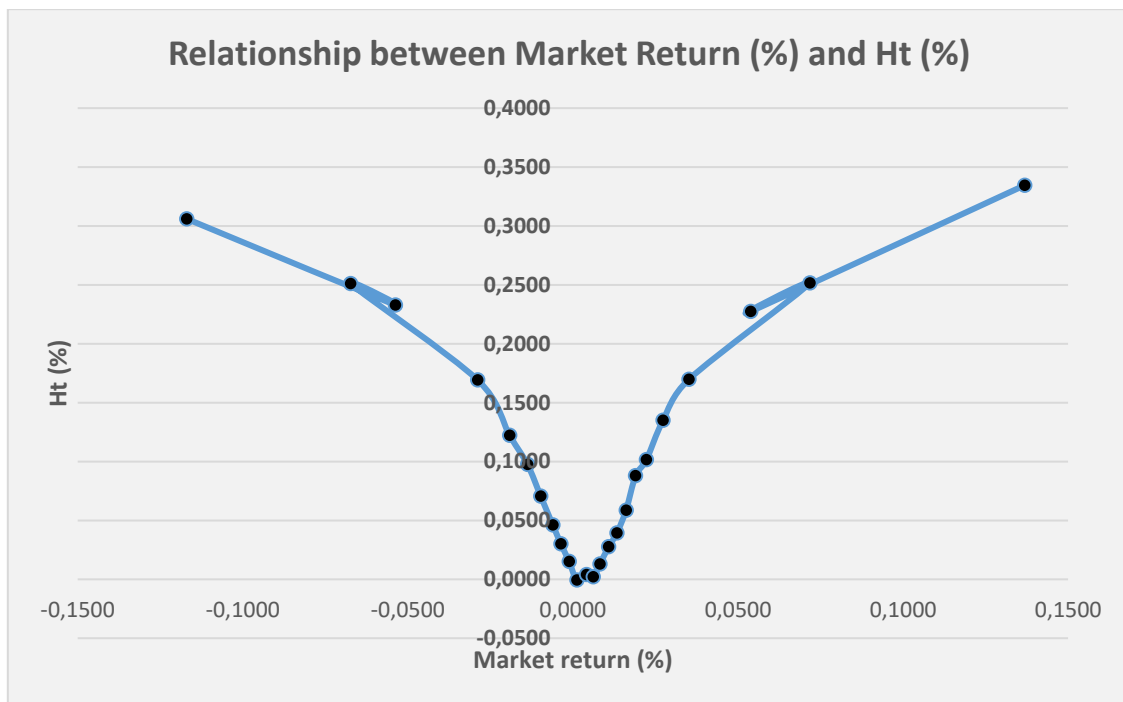
IHSG					
Group based on the market return	Market return(%)	Ht (%)	βg	SE(βg)	t-statistics
1A (0-1%)	-0,1170	0,3060	-0,5954	0,0253	-23,5369
1B (1-5%)	-0,0537	0,2328	-1,8356	0,0396	-46,3413
1	-0,0674	0,2511	-1,1498	0,0376	-30,6111
2	-0,0289	0,1692	-1,5133	0,0478	-31,6450
3	-0,0192	0,1222	-5,2305	0,0299	-175,1459
4	-0,0137	0,0974	3,5747	0,0294	121,5352
5	-0,0097	0,0706	-0,9649	0,0323	-29,9074
6	-0,0061	0,0461	-4,4161	0,0394	-112,1007
7	-0,0036	0,0301	-5,2280	0,0433	-120,8461
8	-0,0011	0,0150	-0,6673	0,0241	-27,6472
9	0,0012	-0,0007	-0,6678	0,0231	-28,9414
10	0,0041	0,0038	0,7253	0,0268	27,0860
11	0,0061	0,0020	5,4113	0,0257	210,8630
12	0,0082	0,0131	-0,7352	0,0319	-23,0219
13	0,0108	0,0277	7,4887	0,0312	240,2828
14	0,0134	0,0393	19,1202	0,0425	449,7012
15	0,0161	0,0587	9,3669	0,0452	207,0712
16	0,0190	0,0878	3,8543	0,0504	76,5264
17	0,0222	0,1015	4,3047	0,0521	82,5842
18	0,0273	0,1349	7,6241	0,0580	131,4341
19	0,0351	0,1698	8,6503	0,0570	151,6881
20	0,0718	0,2515	1,7326	0,0685	25,2838
20B (95-99%)	0,0539	0,2273	1,6895	-0,6811	-2,4806
20A (99-100%)	0,1369	0,3345	0,0631	0,0785	0,8042
Average	0,0044	0,1163			

The regression results of the beta coefficient (βg) on weekly market returns, segmented into 20 groups based on return percentiles, reveal a clear asymmetric pattern. In periods of low or negative returns (Groups 1A–8), the βg coefficients are predominantly negative and statistically significant, indicating more heterogeneous investor behavior or even anti-herding when the market is under pressure. In contrast, for positive return groups (9–20), the βg coefficients turn positive and significant, suggesting that herding intensifies markedly during periods of rising market returns. This pattern is further illustrated in Figure 1, which displays a “V”-shaped relationship, with a pronounced upward slope on the right side corresponding to bullish conditions. Such evidence, where herding strengthens during market upswings, is consistent with behavioral finance theory, which argues that investor optimism, collective excitement,

and momentum tend to amplify herding behavior during bullish and euphoric market phases (Ackert & Deaves, 2010).

Figure 1

The relationship between average weekly market return and average herding measure on IHSG Indonesia



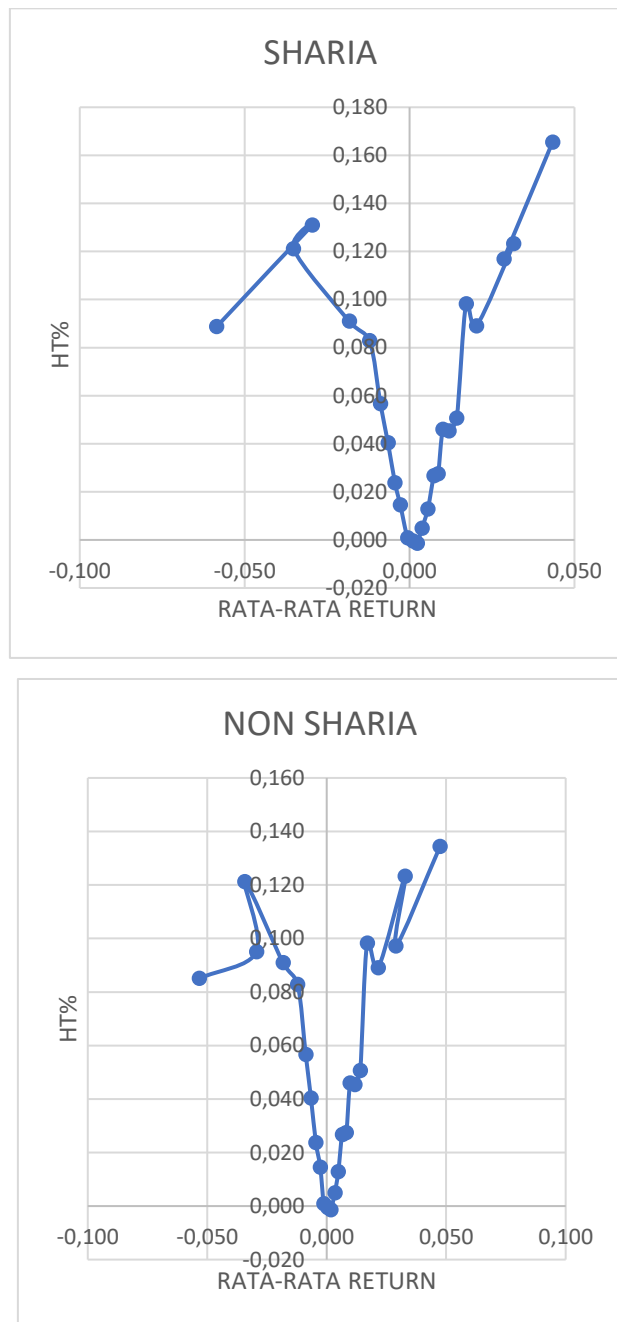
When the market declines (negative returns), Indonesian investors tend to act more rational. Instead of following the crowd, they become more cautious and focus on evaluating risks. This pattern reflects an anti-herding behavior, which aligns with (Chang *et al.*, 2000), who argue that herding doesn't always increase during tough market conditions. In contrast, during periods of market growth (positive returns), the level of herding rises significantly. As illustrated in Figure 1, the relationship forms a “V”-shaped pattern, with a pronounced increase on the right side, corresponding to bullish market phases. This study further examines herding behavior in ISSI and Non-ISSI by categorizing data into 20 groups based on average market returns. The results reveal a clear U-shaped (concave upward). This pattern suggests that herding becomes stronger under extreme market conditions—both during sharp upswings (bullish) and downturns (bearish)—and weakens when the market remains relatively stable. Notably, the curve

for Sharia stocks exhibits a steeper U-shape with Ht values at extreme return levels reaching around 0.16. This indicates that herding intensity in ISSI is more pronounced when the market experiences extreme movements.

Table 5

Relationship between weekly market returns and herding in ISSI and Non-ISSI

SHARIA						NON SHARIA					
Group based on the market return	Market return %	Ht %	β_g	SE(β_g)	t-statistics	Group based on the market return	Market return %	Ht %	β_g	SE(β_g)	t-statistics
1A (0-1%)	-0,059	0,089	0,025	0,014	1,705	1A (0-1%)	-0,053	0,085	-0,031	0,010	-2,950
1B (1-5%)	-0,035	0,130	-0,007	0,005	-1,372	1B (1-5%)	-0,034	0,092	-0,008	0,004	-1,755
1	-0,035	0,121	-0,020	0,014	-1,401	1	-0,034	0,121	-0,017	0,012	-1,438
2	-0,018	0,091	0,009	0,002	4,380	2	-0,018	0,091	0,015	0,003	5,934
3	-0,012	0,083	0,001	0,001	0,873	3	-0,012	0,083	-0,005	0,001	-4,013
4	-0,009	0,057	0,003	0,001	4,762	4	-0,009	0,057	-0,002	0,001	-2,637
5	-0,007	0,040	0,004	0,001	5,691	5	-0,007	0,040	0,004	0,001	7,590
6	-0,004	0,024	0,002	0,000	5,056	6	-0,005	0,024	0,000	0,001	0,515
7	-0,003	0,015	0,005	0,001	8,473	7	-0,003	0,015	0,004	0,001	6,499
8	-0,001	0,001	0,002	0,000	5,527	8	-0,001	0,001	-0,001	0,000	-2,225
9	0,001	-0,001	0,000	0,000	-1,119	9	0,000	-0,001	-0,002	0,000	-7,872
10	0,002	-0,001	0,000	0,000	-1,512	10	0,002	-0,001	0,004	0,000	10,059
11	0,004	0,005	0,008	0,001	15,656	11	0,003	0,005	-0,002	0,000	-3,755
12	0,006	0,013	0,008	0,001	14,104	12	0,005	0,013	0,003	0,000	6,251
13	0,007	0,027	0,001	0,000	1,490	13	0,006	0,027	0,002	0,000	4,715
14	0,009	0,027	-0,003	0,000	-7,656	14	0,008	0,027	-0,001	0,001	-1,454
15	0,010	0,046	0,001	0,000	1,524	15	0,010	0,046	0,002	0,000	3,190
16	0,012	0,045	0,004	0,001	6,132	16	0,012	0,045	0,002	0,001	2,496
17	0,014	0,051	-0,001	0,001	-1,294	17	0,014	0,051	0,002	0,001	2,459
18	0,017	0,098	-0,002	0,001	-2,225	18	0,017	0,098	0,003	0,001	2,372
19	0,020	0,089	0,004	0,001	3,117	19	0,022	0,089	-0,005	0,002	-2,778
20	0,032	0,123	0,021	0,007	3,079	20	0,033	0,123	0,016	0,010	1,675
20B (95-99%)	0,001	0,115	0,009	0,004	2,316	20B (95-99%)	0,000	0,098	0,003	0,003	1,086
20A (99-100%)	0,002	0,165	0,001	0,003	0,365	20A (99-100%)	0,002	0,134	0,000	0,012	0,036
Average	-0,002	0,061	0,003	0,003	2,820	Average	-0,002	0,057	-0,001	0,003	1,000

Figure 2*The relationship market return and herding on ISSI and non ISSI*

In the Non-Sharia, U-shaped pattern is likewise evident, though it is relatively flatter, with peak Ht values around 0.14. This suggests that investor reactions are less collectively driven and more dispersed. This pattern likely arises from the wider variation in sectors, firm types, and investor profiles within the non-Sharia segment, which

encourages more diverse decision-making. As a result, the market shows signs of stronger informational efficiency, with investors continuing to factor in firm-specific information, especially during more stable market conditions.

4.3 Herding and size effect

To examine the role of firm size, companies are grouped into small-cap (Q1) and large-cap (Q5) categories. Table 6 then compares how weekly market returns relate to herding measure (Ht) across these size groups within both Sharia and non-Sharia segments. In the Sharia segment, CSAD pattern shows that return dispersion increases during extreme market movements—both sharp rises and declines. This suggests that investors in large-cap stocks tend to act more independently, likely due to better access to information and stronger analytical capacity. Meanwhile, small-cap investors are more inclined to follow overall market trends, although their impact is not strong enough to significantly shift market dynamics. In contrast, non-Sharia market shows a different pattern. CSAD curve drops sharply when market returns are near zero and increases again under extreme conditions. However, both small-cap and large-cap groups display almost identical patterns, with less variation than Sharia segment. This indicates a more uniform investor response and stronger overall herding behavior in the non-Sharia segment. Consequently, the distinction between small- and large-firm investor behavior becomes negligible, suggesting that firm size effect on herding is relatively weak in non-Sharia market..

Table 6

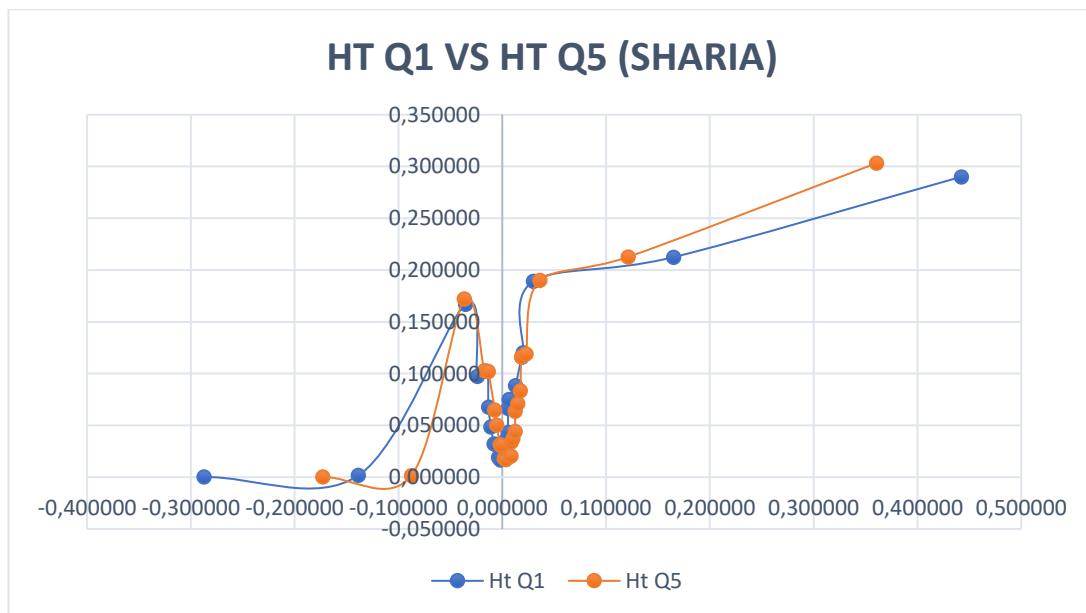
The relationship between market return and herding based on firms size in ISSI and non ISSI

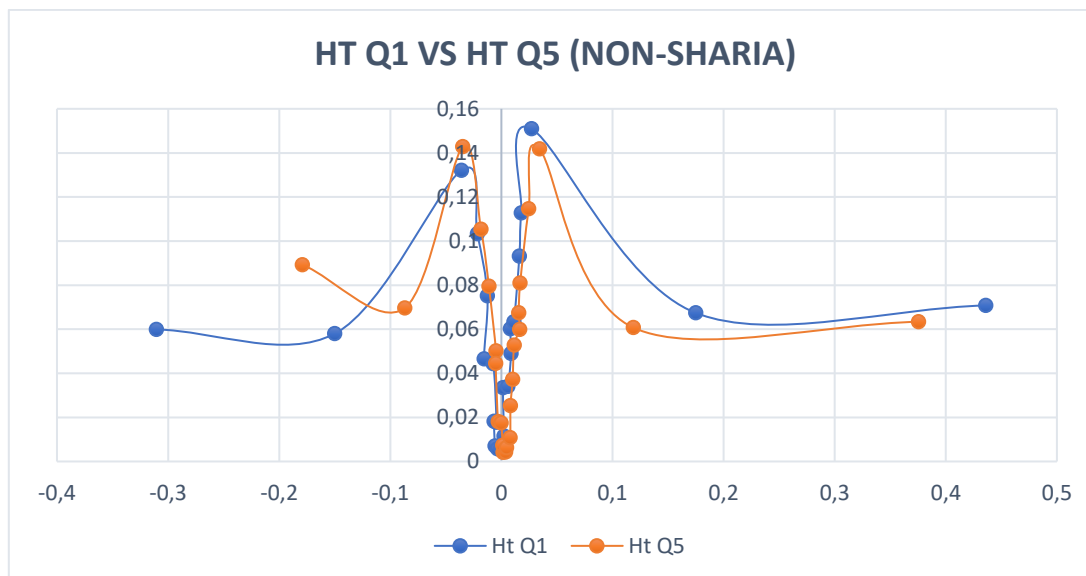
SHARIA				NON SHARIA			
Group based on the market return	Market return %	$\beta_{gQ1}(\text{small})$	$\beta_{gQ5}(\text{Big})$	Group based on the market return	Market return %	$\beta_{gQ1}(\text{small})$	$\beta_{gQ5}(\text{Big})$
1A (0-1%)	-0,0585	-0,0081	-0,0510	1A (0-1%)	-0,0534	0,0985	-0,0348
1B (1-5%)	-0,0295	0,0029	-0,0134	1B (1-5%)	-0,0294	0,0280	-0,0035
1	-0,0352	-0,1933	0,1827	1	-0,0343	-0,2039	0,1469
2	-0,0183	-0,1875	0,0280	2	-0,0183	-0,2455	0,0087
3	-0,0121	-0,0797	0,0623	3	-0,0122	-0,1291	0,0182

4	-0,0088	-0,0991	0,0423	4	-0,0088	-0,0061	0,1600
5	-0,0065	-0,0058	0,0597	5	-0,0066	0,0951	0,1741
6	-0,0044	0,0990	0,0451	6	-0,0045	0,1204	0,0478
7	-0,0028	0,0591	0,1333	7	-0,0027	-0,1050	0,0221
8	-0,0006	0,0939	0,1190	8	-0,0012	-0,0477	0,1551
9	0,0011	0,3002	0,0702	9	0,0003	-0,0055	0,1620
10	0,0023	0,1299	0,0134	10	0,0017	0,0766	-0,0707
11	0,0038	0,0348	-0,0752	11	0,0034	0,0651	-0,0719
12	0,0055	-0,0112	0,0133	12	0,0048	-0,0928	-0,0549
13	0,0074	-0,0232	-0,0491	13	0,0065	-0,1333	-0,0328
14	0,0086	-0,0776	-0,1490	14	0,0082	-0,0058	0,0120
15	0,0101	-0,0923	-0,1364	15	0,0098	-0,0424	0,0529
16	0,0119	-0,0312	-0,0237	16	0,0117	-0,0387	-0,0645
17	0,0143	-0,0718	-0,0778	17	0,0140	-0,1127	-0,0310
18	0,0171	-0,1259	-0,0340	18	0,0169	-0,0643	-0,0076
19	0,0203	-0,0891	0,0010	19	0,0215	-0,0785	0,0341
20	0,0315	-0,1200	0,0193	20	0,0328	0,0527	-0,1579
20B (95-99%)	0,0286	-0,0360	0,0042	20B (95-99%)		-0,0249	0,0250
20A (99-100%)	0,0433	-0,0158	-0,0888	20A (99-100%)		-0,1381	-0,0708

Figure 3

Relationship between weekly market returns and herding in ISSI and Non-ISSI





The findings indicate that firm size does affect herding behavior, especially in Sharia segment, where investors in smaller firms are more inclined to follow overall market trends compared to those in larger firms. In contrast, within non-Sharia market, differences based on firm size are relatively minimal, suggesting that herding is more strongly driven by external factors such as market liquidity and the flow of information. Taken together, the differences in herding intensity between both markets underline how market structure, regulatory settings, and investor profiles collectively influence behavioral patterns in Indonesian stock market.

5 CONCLUSION

This study provides strong evidence of macro herding behavior in the Indonesian stock market over 2011–2024 period. The findings reveal that herding behavior becomes stronger during bullish and extreme market conditions, as investors tend to follow market movements instead of relying on their own analysis. Moreover, herding is more pronounced in the Sharia segment, especially at extreme levels of market returns, reflecting a relatively homogeneous and sentiment-driven retail investor base. In addition, firm size is shown to play a role, with small-cap firms exhibiting stronger herding tendencies than large-cap firms within Sharia market. These results contribute to the behavioral finance literature in emerging markets by showing that herding is shaped not

only by market conditions but also by structural factors like Sharia compliance and firm size. For regulators such as OJK, the findings highlight the need for closer oversight of the Sharia segment during periods of high volatility to help prevent price bubbles and systemic risks. For investors and portfolio managers, insights into herding dynamics can inform contrarian strategies and diversification decisions, ultimately improving capital allocation efficiency in Indonesian market. However, this study is not without limitations. The reliance on weekly data may overlook short-term (daily) market dynamics, and the analysis does not incorporate external factors such as regulatory changes. Future research could extend this work by conducting cross-country comparisons within ASEAN markets or by incorporating additional behavioral dimensions, such as investor overconfidence.

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