

An Analysis of Valuation Differences Between A-share and Hong Kong Stock Markets from the Perspective of Investor Behavior

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Abstract. With the deepening integration of global financial markets, the long-standing "AH share premium" phenomenon—where A-shares of cross-listed companies are typically priced higher than their Hong Kong counterparts—remains a key focus, even as mechanisms like Shanghai-Hong Kong Stock Connect narrow market gaps. Traditional explanations centered on market segmentation have weakened amid enhanced connectivity, shifting attention to investor behavior differences as a critical driver. This study focuses on NetEase (600900.SH/09999.HK) and attempts to explore the behaviors related to the AH share premium from three dimensions: investor sentiment, trading activity, and capital flow. The choice of NetEase as a case has certain particularities. As a leading internet company, its businesses cover fields such as gaming and media that are familiar to the public. A-share retail investors pay high attention to it, while Hong Kong stock institutions focus more on its global competitiveness. This difference may make the impact of behavioral factors more prominent. By analyzing the transaction data and sentiment indicators from 2015 to 2024, this study can not only deepen the understanding of the stock price formation mechanism but also provide more practical decision - making references for investors in the market.

Keywords: A-share premium, investor sentiment, trading activity, capital flow.

1. Introduction

In the context of the gradual integration of global financial markets, the price difference of the same company's stocks in different markets has become a focus of attention. Stocks in the A-share market are often priced higher than those in the Hong Kong stock market. This "A-shares and H-shares (AH) share premium" reflects the unique operating logics of the two markets [1]. Even with the continuous narrowing of the gap between the mainland and Hong Kong stock markets through mechanisms such as the Shanghai-Hong Kong Stock Connect and the Shenzhen-Hong Kong Stock Connect, this price difference has persisted for a long time. Since its release in 2007, the Hang Seng AH Premium Index has mostly remained above 100 points. As of the end of 2023, it was still stable at around 120 points, indicating that A-shares are on average about 20% more expensive than Hong Kong shares [2].

Traditional research attributes this premium to market segmentation, such as capital flow restrictions Cheng et al. and differences in trading systems e.g., price limits, dividend taxes. However, with deepening market interconnection, these factors have weakened without eliminating the premium, necessitating an analysis from the perspective of investor behavior. Behavioral finance theory posits that investors are not fully rational; their decisions are influenced by emotions, cognitive biases, and market environments Kahneman & Tversky. For instance, retail investors account for over 60% of the mainland market, while Hong Kong stocks are dominated by institutional investors Hong Kong Exchanges and Clearing Limited [3]. This structural difference may lead to divergent valuation logics for the same asset.

Existing studies provide relevant insights: Ba et al. found that A-share investors' "home bias" drives up prices of familiar assets e.g., retail investors prefer stocks of domestically focused companies; Lu et al. empirically demonstrated that sentiment indicators e.g., new account openings, margin balance correlate positively with the AH premium, suggesting optimism amplifies A-share price deviations; Pan et al. showed higher A-share turnover rates correlate with larger premiums, as

high-frequency trading is more emotion-driven, whereas institution-dominated Hong Kong markets remain more rational [4]. Recent studies further highlight that cultural differences in risk perception Li et al. and information asymmetry Zhang & Liu also contribute to persistent premiums. Additionally, cross-market arbitrage barriers Wang et al. limit the convergence of prices, even with improved connectivity [5].

2. Data and Pre – processing

This study examines NetEase (A-share: 600900.SH; Hong Kong: 09999.HK) using monthly data from January 2015 to December 2024, totaling 120 observations. The sample period covers multiple market cycles, including the post-pandemic recovery (2020–2022) and global interest rate hike cycles (2023–2024), ensuring robustness [6].

2.1. Data Sources

The monthly closing prices and monthly turnover rates (which serve as trading activity indicators) of NetEase's A-shares and Hong Kong shares are sourced from the Wind database. The monthly average exchange rate of the People's Bank of China (specifically the exchange rate of RMB against HKD) is used to convert the prices of Hong Kong shares to a unified pricing unit (RMB), and this conversion ensures the comparability of prices between the two markets [7].

The monthly number of new A-share account openings and margin balance data, which are used to measure investor sentiment, are obtained from the official websites of China Securities Depository and Clearing Corporation Limited and the Shanghai Stock Exchange. These data help researchers assess the sentiment fluctuations in the A-share market, which is dominated by retail investors [8].

The monthly net amounts of northbound funds (funds flowing from the Hong Kong stock market to the A-share market) and southbound funds (funds flowing from the A-share market to the Hong Kong stock market) under the Shanghai-Hong Kong Stock Connect and Shenzhen-Hong Kong Stock Connect are sourced from the "Spot Market Trading Research Report" of the Hong Kong Exchanges and Clearing Limited and its official website [9]. These data provide insights into capital flow patterns between the two markets [10].

2.2. Pre - processing

The key variables used in this study undergo pre-processing to ensure their suitability for analysis [11]. These variables include the AH share premium rate, which measures the price difference between NetEase's A-shares and Hong Kong shares; the growth rate of new account openings, which reflects changes in retail investor participation in the A-share market; the growth rate of margin balance, which indicates shifts in investor leverage and optimism; the A-share turnover rate, which represents the level of trading activity in NetEase's A-shares; and the net capital flow, which tracks the direction and magnitude of funds moving between the two markets. Each of these variables is calculated and adjusted according to standard financial data processing methods to ensure accuracy and consistency [12].

3. Model Selection

To quantify the impact of investor behavior on the AH share premium, this study constructs a multiple linear regression model, with the AH share premium rate as the dependent variable and investor sentiment, trading activity, and capital flow as independent variables. The model formula is:

$$\text{Premium}_t = \alpha + \beta_1 \text{Account}_t + \beta_2 \text{Margin}_t + \beta_3 \text{Turnover}_t + \beta_4 \text{Flow}_t + \varepsilon_t \quad (1)$$

Where " α " is the constant term, β_1 – β_4 are regression coefficients, ε_t is the random error term, and t represents time.

4. Results

4.1. Descriptive Statistics Results

Table 1. Descriptive statistics of main variables (2015.01 - 2024.12)

Variable	Sample Size	Mean	Standard Deviation	Maximum	Minimum
AH Share Premium Rate (%)	120	24.68	9.32	48.21	8.75
Growth Rate of New Account Openings (%)	120	18.25	10.63	45.32	-5.21
Growth Rate of Margin Balance (%)	120	22.17	12.89	52.67	-8.34
A-Share Turnover Rate (%)	120	3.26	1.58	7.89	0.92
Net Capital Flow (100 million yuan)	120	5.83	4.21	18.65	-9.72

Table 1 shows that the average AH share premium rate of NetEase from 2015 to 2024 is 24.68%, which is higher than the 20% average level of the Hang Seng AH Premium Index, indicating a more significant A-share premium for NetEase. The growth rates of new account openings and margin balance fluctuate greatly, reflecting that A-share retail investors' sentiment is vulnerable to the market environment. The average A-share turnover rate is 3.26%, which is higher than the average level of the Hong Kong stock market (According to the data of the Hong Kong Exchanges and Clearing Limited, the turnover rates of Hong Kong stocks dominated by institutions are mostly lower than 1%), indicating more active trading in A-shares. The mean value of net capital flow is positive, suggesting that long - term funds tend to flow into A-shares.

4.2. Correlation Analysis Results

Table 2. Pearson correlation coefficient matrix of variables

Variable	AH Share Premium Rate	Growth Rate of New Account Openings	Growth Rate of Margin Balance	A-Share Turnover Rate	Net Capital Flow
AH Share Premium Rate	1	0.68**	0.71**	0.65**	-0.62**
Growth Rate of New Account Openings		1	0.82**	0.59**	-0.53*
Growth Rate of Margin Balance			1	0.63**	-0.57*
A-Share Turnover Rate				1	-0.49*
Net Capital Flow					1

Table 2 shows that investor sentiment indicators (the growth rates of new account openings and margin balance) are highly positively correlated with the premium rate (correlation coefficient > 0.7), indicating that the more optimistic the retail investors' sentiment, the higher the premium. The A-share turnover rate is significantly positively correlated with the premium rate (0.68**), verifying the promoting effect of trading activity on the premium. The net capital flow is significantly negatively correlated with the premium rate (-0.62**), that is, the more capital flows into Hong Kong stocks (negative net amount), the lower the premium.

4.3. Regression Analysis Results

Table 3 shows that the overall fit of the model is good ($R^2=0.81$), and all variables pass the significance test ($p<0.01$). Among them, the growth rate of margin balance has the greatest impact on the premium (coefficient 0.45), that is, for every 1% increase in the margin balance, the premium rate rises by an average of 0.45%. The A-share turnover rate ranks second (coefficient 2.17), and for every 1% increase in the turnover rate, the premium rate rises by 2.17%. For every 100 million yuan

decrease in the net capital flow (that is, more capital flows into Hong Kong stocks), the premium rate drops by 0.38%.

Table 3. Multiple linear regression analysis results

Variable	Regression Coefficient	Standard Error	t-Value	p-Value
Constant Term	6.35	1.92	3.31	0.001
Growth Rate of New Account Openings	0.32	0.11	2.91	0.004
Growth Rate of Margin Balance	0.45	0.13	3.46	0.001
A-Share Turnover Rate	2.17	0.78	2.78	0.006
Net Capital Flow	-0.38	0.12	-3.17	0.002
R ²	0.81			
Adjusted R ²	0.79			
F - Statistic	56.32			<0.001

4.4. Trend Chart and Scatter Plot

Figure 1 intuitively shows the linkage between investor sentiment and the premium rate. When A-share retail investors are enthusiastic due to market hotspots (such as the launch of NetEase's new games or the expansion of its media business), the premium rate rises significantly. When the market cools down (such as tightened industry regulations) and sentiment is low, the premium rate contracts, verifying the logic of "sentiment - driven premium".

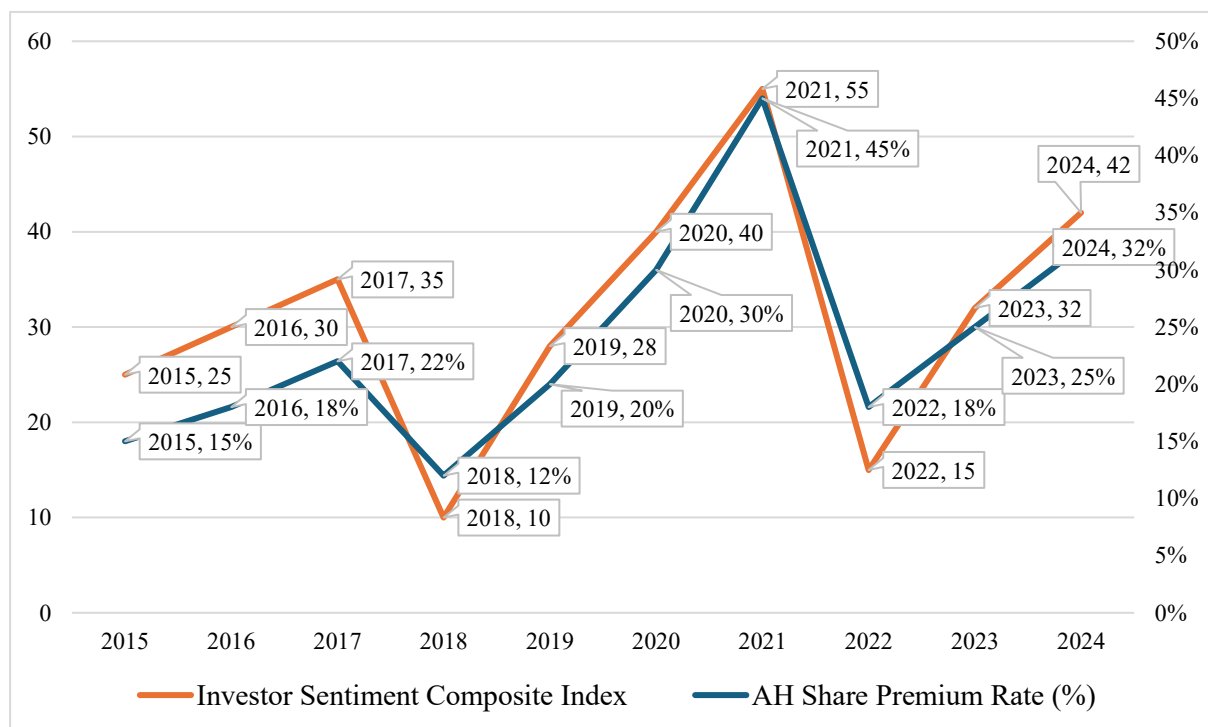


Figure 1. Trend chart of NetEase AH share premium rate and investor sentiment (2015 - 2024)
(Picture credit: Original)

5. Analysis

5.1. Investor Sentiment: Valuation Bias in Retail-Dominated Markets

A-shares' 60% retail participation Hong Kong Exchanges and Clearing leads to emotion-driven decisions De Long et al. NetEase's familiar gaming/media triggers retail "home bias" Ba Shusong et al. leading to overvaluation, while Hong Kong institutions focus on global competition e.g., overseas

gaming rivals, resulting in rational valuations. Margin balance growth (coefficient 0.45) amplifies optimism: during *Naraka: Bladepoint's* 2021 success, A-share retail investors leveraged purchases (52.67% margin growth) pushed premiums to 48.21%, while Hong Kong stocks rose 60% less—widening the gap consistent with Lu et al.

5.2. Trading Activity: High-Frequency Trading Amplifies Deviations

A-shares' higher turnover (3.26% vs. Hong Kong's <1%) supports Pan Yue et al.'s "liquidity-driven premium" theory. Retail high-frequency trading (e.g., chasing trends) distorts prices: a 1% turnover increase raises premiums by 2.17%. A-shares' $\pm 10\%$ price limits exacerbate this: rallies trigger retail "hoarding," inflating prices, while Hong Kong's unrestricted trading allows institutions to lock in gains—aligning prices with fundamentals.

5.3. Capital Flow: Interconnection as A Moderator

Negative correlation between net capital flow and premiums (-0.38) indicates cross-market flows adjust prices: northbound inflows lift Hong Kong prices, narrowing premiums; southbound inflows widen them. Long-term A-share inflows (mean 5.83 billion RMB) stem from retail "noise trading" De Long et al. creating short-term opportunities and a "sentiment-inflow-premium" cycle. For example, 2023 Fed rate hikes tightened Hong Kong liquidity; 18.65 billion RMB southbound inflows cushioned A-share declines, lifting premiums from 22% to 31%.

6. Conclusion

This study confirms investor behavior drives NetEase's persistent AH premium: sentiment (especially margin leverage) has the greatest impact, high-frequency trading amplifies deviations, and capital flows moderate effects. With an average 24.68% premium, NetEase's case supports behavioral finance logic that retail-dominated markets face greater valuation biases.

For NetEase, it should strengthen research and development risk management in gaming—conducting in-depth market research before launching new products to align with user needs. It can also expand into metaverse or cloud gaming, integrate Artificial Intelligence to enhance user experience, and explore innovative models in its music business, like collaborating with emerging artists. Looking ahead, such moves may help maintain its industry position and narrow the AH premium as the market recognizes its value better.

However, this study has certain limitations, including a single-case focus (excluding finance/manufacturing) and unaddressed macro factors (e.g., exchange rates). Future research could expand samples to 10 cross-listed firms or include macro variables for robustness.

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