Anchoring Effect in Capital Market

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Abstract. Anchoring effect refers to a bias phenomenon in which an individual's decision-making in an uncertain situation is influenced by the initial irrelevant information (anchor), which biases subsequent judgment decisions to this information (anchor). As one of the most robust cognitive biases, the anchoring effect is pervasive in people's decision-making process. This paper systematically reviews and sorts out the domestic and foreign research literature on the impact of anchoring effect in the field of economic management, and summarizes the application of anchoring effect in domestic and foreign financial markets, in order to inspire future research.

Keywords: Anchoring Effect; Behavioral Finance; Capital Market.

1. Introduction

The basic assumption of classical financial theory is the 'economic man' assumption that all market participants are rational, but since the 1980s, a large number of empirical studies have found that traditional financial theory cannot explain well In reality, there are a lot of financial anomalies that cannot be explained by classical financial theory.

In order to explain the anomalies that cannot be explained by these classical financial theories, some financial scientists have applied the research results of cognitive psychology and experimental studies to the behavior analysis of market participants and decision makers, forming behavioral finance. With the in-depth study of behavioral finance, these individual cognitive characteristics such as anchoring effect, overconfidence, and herd effect have made a good explanation for human behavioral bias. The anchoring effect discussed in this paper is considered one of the most robust cognitive biases in human judgment and decision-making.

The anchoring effect means that when faced with a decision, due to the excessive emphasis on past experience, the decision maker will determine a starting value based on past experience, and use this starting value as a reference point to adjust the estimate. this makes the decision-maker's final estimation result tend to the anchor value [1].

The research on the anchoring effect has been carried out by scholars as early as the 1960s[2][3]. in 1974, Tversky and Kahneman found through experiments that people's evaluation and judgment of real matters are easily affected by manipulated by irrelevant information beforehand, thereby formally presenting the anchoring effect of our current discussion.

At present, the academic community believes that the anchoring effect comes from the limited ability of human information collection and processing, that is, limited attention to surrounding events. Due to the limited time and energy, when faced with an uncertain environment, the ability of investors to analyze information is limited, and it is impossible to incorporate all information into the analysis. All investors can only selectively select and pay attention to some information, and obtain the result of a decision by analyzing the selected information.

This feature of limited attention enables people to process the obtained information quickly, but it reduces the quality of information processing, which often makes investors have a large deviation in the results of information processing, that is, they do not respond enough to some information but sometimes overreacting to certain information. Both underreaction and overreaction to information affect investors' rational analysis of information. In order to better understand the anchoring effect in the financial market, this paper summarizes the relevant literature, and sorts out the research literature on the impact of the anchoring effect in the capital market, in order to inspire future research.

2. Anchoring Effect and Investor Behavior Bias

There is abundant evidence that both individual and institutional investors are disturbed by the anchoring effect when making investment decisions.

Taking stock trading as an example, when investors buy stocks, they often use the historical price of the stock as a reference value for the buying price. In real life, the stock price all-time highs and all-time highs of the past 52 weeks often become the price reference anchors that investors generally agree with. Li and Yu conducted research using the data of US stocks and found that when the stock price is close to the stock price high point in the past 52 weeks, market investors often think that this is only caused by temporary good news, so market investors tend to Choose to wait and see, not willing to continue to buy stocks. When the stock price is close to the all-time high price, investors often think that this is the result of a series of good news of the company and pay too much attention to the changes of the company's stock, and then continue to buy the stock, resulting in the stock being pushed too high in the short term [4]. At the same time, the research of Ma also pointed out that when the stock has been close to the high point of stock price in the past 52 weeks, if sudden good news continues to appear in the market, the reaction of investors is generally weak, making the stock price rise less. And if there is a sudden negative news at this time, the investor's reaction may be stronger, which will intensify the decline of the stock price [5].

In addition to the historical price of the stock, the nominal price of the stock often has an anchoring effect. Li found that there is a negative relationship between the return of stocks and the nominal price of stocks in the Chinese market [6]. When investors make investment decisions, investors think that stocks with low nominal prices are more cost-effective. they believe that stocks with low nominal prices have more room for upside and less room for downside. in contrast, stocks with high nominal prices are considered to have more room for downside and less room for upside, so investors affected by the peg effect will be more keen to buy stocks with low nominal prices and sell Stocks with high nominal prices, which in turn lead to a negative relationship between stock returns and nominal prices.

In addition to the price of stocks, investors may also use the stock's recent earnings as an anchor for stock selection. Jegadeesh and Titman found that there is a trend in the volatility of stock prices. that is, buying stocks that have made a profit in the recent period and selling stocks that have lost in the recent period can obtain significantly higher returns than the market average, which indicates that stocks that have risen recently , there will still be an upward trend in the future. while the stocks that have fallen recently will still have a downward trend in the future, and this trend is the so-called momentum effect [7]. Barberis, Shleifer and Vishny also pointed out in the classic model BSV model that investors have an anchoring effect when investing, that is, the past performance of the stock will directly affect investors' judgment on the future value of the stock, that is, when the stock has performed well in the past. , Investors will use the past performance of the stock as an anchor, thinking that the stock will perform well in the future, and then choose to continue to buy, causing the stock price to continue to rise, and when the stock has performed poorly in the past, investors will They will also be pessimistic about the future performance of the stock, unwilling to buy the stock or even want to sell the stock further, which will lead to a further decline in the stock price[8].

Of course, some seasoned investors don't care about the price of a stock, claiming that they make decisions based on fundamental analysis, but even the most seasoned investors suffer from anchoring effects. Zhu Chao and others found from the anchoring effect of fundamentals that fundamental information will also play an anchoring role in the future returns of stocks [9].

In addition to stock investment, anchoring effect also widely exists in various investment processes. For example, fund investors also have anchoring effect when choosing funds. Zhang and others found that Chinese fund investors often refer to the anchor value of 'the new high of the fund's net share value in the past 52 weeks' when selecting funds for investment [10]. When the current anchor value of the fund is smaller than the anchor value ratio, the fund will Investors often feel that the fund has become cheaper now, but will actively subscribe for fund shares, triggering a large inflow of funds and forming a redemption phenomenon. Similarly, there is an anchoring effect in the futures market. Kuang and others found that futures investors often use their last purchase price as the anchoring

point, that is, when futures investors buy a certain commodity future, they often refer to the opening price of their last purchase of the commodity futures, resulting in anchoring deviation [11].

3. Anchoring Effect and IPO Pricing

In addition to the anchoring effect that investors receive in the secondary market transaction process, when new shares are issued in the primary market, there is also an anchoring effect in the pricing process of new shares.

Song's research shows that in the process of IPO, the underwriters have anchoring behavior in the pricing of stocks. When IPOs are issued, underwriters often use the price-earnings ratio or price-to-book ratio of companies in the same industry as the reference anchor for IPO pricing, although the degree to which these two indicators are anchored varies in different sectors of stock pricing [12].

Zhou also made anchoring statistics on the inquiry range in my country's IPO market from the perspective of anchoring, and used graphics to visualize the anchoring phenomenon in the process of IPO inquiry [13]. Gao researches on the quotations of institutional investors in China's IPO inquiry and issuance from 2010 to 2012, and finds that institutional investors have a reference point anchoring effect in IPO quotations [14]. Hovakimian and Hu's research shows that there is a phenomenon of anchoring the highest price in the last year in US SEO pricing [15].

Based on the relative value method (an evaluation method that determines the value of the target enterprise through the market price of similar enterprises, usually using the price-earnings ratio method, the price-to-book ratio method, etc.) , it should be reasonable to anchor the index of enterprises in the same industry to make quotations. However, in the actual IPO process, IPO underpricing is a common phenomenon, and the situation in China is the most obvious. IPO underpricing refers to the phenomenon that on the first day of a listed company's stock offering, its closing price is significantly higher than the issue price, and the stock yield on the first day of listing is high. Since the process of stock listing is mainly completed through market inquiry, there should not be such an obvious deviation between the issue price and the intrinsic value obtained by this inquiry under the condition that all investors can participate. However, due to the long-standing phenomenon of IPO underpricing, many investors have a perception: that is, the issuance of new shares must be underpriced, and higher returns must be obtained on the first day of the issuance of new shares. This perception has prompted investors to be keen to buy new shares driven by the anchoring effect, resulting in the phenomenon that the closing price on the first day is often higher than the issue price.

4. Anchoring Effect and Analyst Forecasts

In addition to the direct judgment of investors, the investment recommendations made by analysts to investors will also have a significant impact on investors' investment decisions. A large number of articles have previously shown that cognitive biases such as analyst overconfidence and herding effect can lead to biases in analyst forecasts, and some studies have shown that anchoring effects are also strong in explaining analyst biases.

As the subject of profit forecasting, analysts are often as irrational as ordinary investors when making profit forecasts. Ehrbeck and Waldmann pointed out that the premise that analysts are rational when making profit forecasts does not hold, and their conclusions imply analytical irrational conclusions when the analysts predict [16]. Porta found through research that analysts will use past earnings changes as an anchor value when predicting corporate earnings, which will lead to a rise in the stock prices of companies with lower expected earnings growth, while the stock price of companies with higher expected will fall [17].

5. Conclusion

As one of the most robust cognitive biases, the anchoring effect is pervasive in people's decision-making process. In the capital market, we can see the impact of the anchoring effect from many aspects such as stock issuance, pricing, analysts' analysis and forecasts, and investors' investment decisions. From the past literature, we can know that by analyzing the anchoring effect of various capital markets, scholars have found that the anchoring effect in economic activities is more complicated than the anchoring effect theory obtained through experiments in the laboratory. A simplified experimental environment can help us to find the general model of the theory in a certain sense, but in a more practical decision-making behavior, we can better understand the specific meaning of the model. In recent related researches, scholars have already broken through the initial framework of purely numerical values as anchor points, and adopted a more open attitude to examine the anchor effect. Starting from the early prices and other figures, the connotation of the anchor effect It has been continuously extended that various relative relationships, fundamental information and past history can guide decision makers to produce anchoring effects. From recent research, we can also see that scholars have been able to extract the responsible background through various methods. However, how to define and quantify the anchoring value of real-world judgment decisions is still a major obstacle to current research.

From the perspective of realistic decision-making, the existence of the anchoring effect does not necessarily impair the decision-maker's decision-making judgment. On the one hand, the existence of the anchoring effect enables the decision-maker to complete rapid decision-making under high uncertainty. This shortcut It enables decision makers to obtain decision results quickly, but loses certain judgment accuracy. Whether the anchoring effect is beneficial to decision makers' judgment needs to be further discussed in different situations.

From the perspective of research topics, the research on the anchoring effect is still in its infancy, and there are still many problems in the financial market that need to be discovered and explained, such as whether various problems in corporate governance will be affected by the anchoring effect, and the There is an anchoring effect in allocation, whether the audit decisions of auditors and the formulation of macroeconomic policies are affected by the anchoring effect, etc. The study of anchoring effect provides a new angle of interpretation for us to better understand the operation of capital market.

References

[1] Amos Tversky and Daniel Kahneman. Judgment under Uncertainty: Heuristics and Biases[J]. Science, New Series, 1974, Vol. 185, No. 4157:1124- 1131.

[2] Slovic P. The relative influence of probabilities and payoffs upon perceived risk of a gamble. [J]. Psychonomic Science, 1967, 9(4): 223–224.

[3] Slovic P, Lichtenstein S. Relative importance of probabilities and payoffs in risk taking. [J]. Journal of Experimental Psychology, 1968, 78(3): 1–18.

[4] Li J, Yu J. Investor attention, psychological anchors, and stock return predictability. [J]. Journal of Financial Economics,2012,104(2): 401-419.

[5] Ma, Q, Whidbee, D. A. and Zhang, W. A. “Acquirer Reference Prices and Acquisition Performance”. [J]Journal of Financial Economics, Vol.132, pp.175~199

[6] Li Junsheng, Zhuo Jianwei. Research on the price effect of China's A-share market. [J]. Price Theory and Practice,2018,1: 106-109.

[7] Jegadeesh, N. and S. Titman. Short-horizon Return Reversals and the Bid-ask Spread. [J]. Journal of Financial Intermediation,4,116-132.

[8] Barberis N, Shleifer A, Vishny R. A Model of investor Sentiment[J]. Journal of Financial Economics, 1998, 49 (3): 307-343.

[9] Zhu Chao, Wang Zheng. Re-examination of the reversal effect based on the perspective of fundamental anchoring. [J]. financial review. 2021, 4: 58–76.

[10] Zhang Yatao, Liu Yilian. Research on the Causes and Governance of "Anchoring Effect" of Fund Investors in my country. [J]. China Journal of Economics. 2021, 8(3): 67–92.

[11] Kuang Xiong, Cheng Chao, Chen Xia. The Existence of Investor Anchoring Effect in my country's Commodity Futures and Its Influence on Market Efficiency. [J]. Journal of Systems Science and Mathematical Sciences. 2022, 6.

[12] Song Shubin. The empirical method and test of capital market anchoring effect [J]. Securities Market Herald. 2011,2: 44-48.

[13] Zhou Xiaohua. Issuance mechanism, investor behavior, market liquidity and IPO price [M]. China Financial and Economic Publishing House,2009: 250-269.

[14] Gao S., Meng Q., Chan J. Y., Chan K. C. Cognitive reference points, institutional investors' bid prices, and IPO pricing: Evidence from IPO auctions in China [J]. Journal of Financial Markets,2018(38):124 ~ 140.

[15] Hovakimian A., Hu H. Anchoring on historical high prices and seasoned equity offerings[J]. Journal of Financial and Quantitative Analysis,2020(8):2588-2612.

[16] Ehrbeck T, Waldmann R. 1996. Why Are Professional Forecasters Biased? Agency Versus Behavioral Explanations [J]. The Quarterly Journal of Economics, 111(1): 21-40.

[17] Porta R. 1996. Expectations and the Cross-section of Stock Returns [J]. The Journal of Finance,51 (5): 1715-1742.