

An experimental study on investors' status quo bias and its determinants

Research Article

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❖ ABSTRACT :

The status quo (or sometimes status quo) bias refers to a behavioral bias that reflects resistance to change and a mental attitude in which any novelty is perceived to create more risks than benefits. As a result, people prefer that things stay the same or evolve as little as possible if we can not do otherwise. They prefer to minimize losses that take risks to earn more. The more complex and difficult a decision is to make, the more people tend to accept the status quo, because the anxiety of having to regret it encourages caution.

❖ DATA :

- Qualitative data from several surveys.
- Laboratory experiment and field experiment.
- Statistics tests in order to analyse several surveys.

❖ RESEARCH HYPOTHESES :

Hypothesis 1 : Framing effect has a significant effect on investors' status quo bias, and investors' status quo bias is higher in price differential frame than in the ratio frame of the investable portfolio.

Hypothesis 2 : Emotion has a significant effect on investors' status quo bias, and positive emotion would strengthen the investors' will of exchange, reduce the level of investors' status quo bias, while the negative emotion has the opposite effect.

Hypothesis 3 : Information structure has significant effect on investors' status quo bias, and the level of status quo bias in self-status assignment group is higher than in external-status assignment group.

❖ RESEARCH DESIGN :

Here they apply two basic approaches to test their hypotheses :

- A laboratory experiment (Selten laboratory of Nankai University)
- A field experiment

❖ METHODS :

Hypothesis 1 : Respondents were given three minutes to understand the experimental introduction. Then, respondents filled out the questionnaire as showed in Fig. 1 and Fig. 2. Field experiments were

carried out in students' dorms, who were selected randomly, and the process was mostly the same as in the laboratory.

Decision 1: Assuming that you were an investor in the stock market, you used all your money to buy stocks:
When the price of stock A was ¥18 per share, you bought 100 shares and now the price is ¥21, your profit is ¥300; when the price of stock B was ¥17 per share, you bought 200 shares and now the price is ¥15.5, your loss is ¥300. What will you do now?

A. Sell stock A and hold stock B	B. Hold all the stocks
C. Sell stock B and hold stock A	D. Sell all the stocks

Please rank above options in accordance with the strength of your wishes (from strong to weak).

Fig. 1 Record card of the price differential expressing group

Decision 2: Assuming that you were an investor in the stock market, you used all your money to buy stocks:
When the price of stock A was ¥18 per share, you bought 100 shares and now your profit rate is 16%; when the price of stock B was ¥17 per share, you bought 200 shares and now your loss rate is 9%. What will you do now?

A. Sell stock A and hold stock B	B. Hold all the stocks
C. Sell stock B and hold stock A	D. Sell all the stocks

Please rank above options in accordance with the strength of your wishes (from strong to weak).

Fig. 2 Record card of the return rate expressing group

Hypothesis 2: Respondents were required to watch a short film as necessary rests. Then, the experimenter announced that there were 10 presents for them as souvenirs for taking part in the experiment. After that, respondents played the finger-guessing game between each pair, and the winner of A type got a souvenir, a Crystal Olympic Fuwa. Then, the experimenters allowed the respondents to pass it from one to another to see the souvenir clearly. Finally, the experimenter distributed type A and type B record cards to the respondents.

Your number: _____
Welcome to take part in the experiment and congratulations on your souvenir! Now you have the opportunity to sell the souvenir to the experimenter, please fill in the price you are willing to accept.
_____ (¥).

Fig. 3 Record card of type A respondents

Your number: _____
Welcome to take part in the experiments! Now you have the opportunity to purchase the souvenir from the experimenter which is displayed just now, please fill in the price you are willing to pay. _____ (¥)

Fig. 4 Record card of type B respondents

Three groups :

- Positive emotion group. Played the short film Mr. Bean for 8 minutes.
- Negative emotion group. A sad short film Kiss in this experiment.
- Neutral emotion group. Did not see the film.

Hypothesis 3 : Respondents knew that there were two bags of ping-pong balls, which both contained 100 balls and that bag A contained 50 yellow and 50 white balls, but they did not know the specific number of yellow balls and white balls in bag B. Respondents touched a ping-pong ball and guessed its color. If he was right, he would earn ¥3. In addition, every respondent could get ¥10 as participation fee. To make sure that all respondents have understood the experimental process fully, the experimenter distributed experimental record cards. (Several groups to test this hypothesis).

Your number: _____		
Please record your options:		
Bags you choose:	() Bag A	() Bag B
Colors you guess:	() Yellow	() White

Fig. 5 Record card of respondents in freedom choice group

❖ EXPERIMENTAL RESULTS :

Hypothesis 1 : Results analysis of framing effect and investors' status quo bias experiment.

In the experimental frame of price differential, respondents believed that holding all the stocks was the optimal choice, but in experimental frame of return rate, selling stock A and hold stock B was considered to be the best choice. Therefore, we can conclude that different expressions impact status quo bias significantly. This result demonstrates framing effect has a significant impact on investors' status quo bias.

Hypothesis 2 : Results analysis of emotion and investors' status quo bias experiment.

From above statistics, we can see that the level of investors' status quo bias is lowest under positive emotion and is highest under negative emotion.

Hypothesis 3 : Results analysis of information structure and investors' status quo bias experiment.

This indicates that the majority of respondents have the tendency to elude vague options when they face the vague options. In addition, the rate of choosing the options of certain probability is five times as the options of vague probability. In the experiment of external-status assignment group, the ratio of reserving options is three times as changing options. These results prove the previous assumptions.

❖ CONCLUSION :

Investors' status quo bias mainly derives from the obtaining phase, the editing phase and the evaluation phase of information. Framing effect, investor emotion and information structure are three typical problems in above two phases and they have important impact on investors' status quo bias.

Results show that the investors' status quo bias level in the frame of profit and loss expressed by price gap is significantly higher than in the return rate frame.

In the experiment of investor emotion and status quo bias, we make use of the images of stories to induce respondents' positive emotion and negative emotions, together with the experimental group with no emotion induced as the benchmark to research their status quo bias level. Studies show that the value of WTA/WTP under positive emotion is 1.64, which is the smallest, and the value under negative emotion is 2.35. These results demonstrate that WTA and WTP are different under positive emotion and negative emotion for the respondents of investors. The respondents have higher transaction willingness and lower status quo bias level under positive emotion and the respondents have lower transaction willingness and higher status quo bias level under negative emotion.

In the experiment of information structure and investors' status quo bias, we measure investors' status quo bias level. The status quo bias level of respondents in external-status assignment group is lower than in self-status assignment group. In external-status assignment group, 75% respondents of investors maintain the status quo, while in self-status assignment group, the rate is 90%.