

Exploring the Impact and Decisions of Loss Aversion Psychology in the Real Estate Field and Energy Conservation

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Abstract: The well-known phenomenon of loss aversion, which refers to the tendency for individuals to strongly prefer avoiding losses over acquiring gains, has long been recognized as a significant factor influencing decision-making in various aspects of life. This innate fear of experiencing losses can often lead to irrational behavior and unwise choices. One area where loss aversion plays a crucial role is in the realm of personal finance. Individuals who have a strong aversion to losses may exhibit cautious behavior by increasing their savings as a precautionary measure against uncertain future events. From real estate and various national policies to daily life choices, these choices can change people's aversion to losses. Therefore, the primary focus of this article is to explore the decision-making processes employed by real estate developers and customers under the influence of loss aversion mentality, as well as people's choices for energy conservation driven by loss aversion mentality. Through data analysis, this article concludes that if consumers reasonably control and utilize their loss aversion psychological effects, they will not suffer any economic losses.

Keywords: Loss aversion, real estate, decisions, energy conservation, psychological effects.

1. Introduction

The famous loss-aversion psychological behavior has always affected people's lives. This overwhelming fear of loss may lead people to exhibit irrational behavior and make poor decisions [1]. For example, people who are averse to losses may increase their savings to prepare for uncertain future events instead of purchasing term life insurance, which could lead to losses [2]. Loss aversion refers to people's susceptibility to losses more than they feel to gains of equal value. Simply put, people are more afraid of losing what they have than of gaining something of equal value [3]. The concept of loss aversion was introduced in 1979 by the economists Kahneman and Tversky, who believed that people would react differently to the same loss and gain, a phenomenon known as "loss aversion" [4]. Whether it pertains to national policies in real estate or the psychology behind loss aversion in everyday life, decision-making is subject to alteration due to individuals' inclination towards avoiding losses.

This article highlights the profound impact of loss aversion on both market dynamics and human psychology across different situations, drawing upon comparative data from multiple years within the same industry. By reading this article, readers can gain a comprehensive understanding of how loss aversion aids in comprehending their decision-making processes when confronted with risks and

uncertainties. Furthermore, it enables individuals to better manage their finances, such as by setting stop-loss points to avoid significant economic harm.

2. Application of Real Property

As a simple example, the level of pain people feel about dropping \$100 is higher than the level of joy they feel when they find 100 dollars, which is higher than the joy of picking up 100 dollars. Most choose to buy a house not because the house can bring much income, but out of the fear that if they do not buy a house, they can no longer afford to buy a house. People who cannot afford to buy a house in the future are extremely averse to the loss of this loss aversion to psychology, so that the people, especially those low-income groups, have to take on excessive debt to buy a house. In fact, if all sellers in the market who do not need to sell maintain stable asking prices, perhaps the housing crisis will begin to end [5].

Of course not. People go from buying a house with full payment to buying a house on mortgage, from one house to multiple houses, and the mortgage term has increased from ten years to 30 years. The household debt ratio is increasing year by year, and people are gradually getting used to loan consumption. People's consumption methods have also changed from cash to credit cards, and then to Huabei, as well as some software that can advance payments. But once people borrow money to buy a house beyond the limit of debt that families and individuals can bear, even if the mortgage term is repaid to 50 years. They are also powerless. When they repay the excess loans, they have no room to increase their debt again. Therefore, they can only sell their houses in exchange for wealth to fill the gap created by the previous loans. But as more and more people start to choose and sell their homes quickly, the prices will become lower and lower because there is an oversupply in the market. People's urgent desire to sell their houses will lead to a loss of confidence in housing prices. Once confidence is lost, more people will follow suit and sell their excess houses. Selling because of loss aversion can make people feel that if they don't sell the excess house at this point, they will lose a certain amount of profits, because even if they sell the house in the future, the money they receive will not be enough to compete with the money they bought at that time. This has led to a continuous decline in housing prices.

Table 1: The house prices in Foshan During May 2022 to December 2022.

time	house's prize in Foshan	state
2022/May	13839	rising 0.7%
2022/Jun.	14438	rising 4.33%
2022/Jul.	14893	rising 3.15%
2022/Aug.	14705	lower 1.26%
2022/Set.	14725	rising 0.14%
2022/Oct.	14895	rising 1.16%
2022/Nov.	14965	rising 0.47%
2022/Dec.	14785	lower 1.2%

From table 1, it can be seen that the housing prices in Foshan, Guangdong, China, in 2022 have risen from less than 14, 000 yuan per square meter to the highest of 14,900 yuan to 15, 100 yuan per square meter. This table shows an overall upward trend because everyone feels that the housing prices are still very low at this time under the pressure of loss aversion. If they do not buy at this time, more and more debts or other external factors will lead to them not being able to buy a house, so more

people have joined the buying team. The result is a shortage of supply, so there are only so many houses, but people's demand is much higher than houses. Therefore, in order to raise their threshold, the real estate industry is actually trying to make more money by slowly increasing the housing price. Don't just look at the small increase per square meter. After selling all the properties, they will change the housing price slightly, and reap more benefits.

Table 2: The house prices in Foshan During January 2023 to August 2023.

time	prize of house	state
2023/Jan.	15043	rising 1.75%
2023/Feb.	15052	rising 0.07%
2023/Mar.	15156	rising 0.69%
2023/Apr.	14944	lower 1.39%
2023/May.	15016	rising 0.49%
2023/Jun.	14955	lower 0.4%
2023/Jul.	14779	lower 1.17%
2023/Aug.	14678	lower 0.62%

So from this graph in 2023 (table 2), it can be seen that from the beginning of the year at 15000 yuan, the overall housing price per square meter showed a downward trend, until August this year when the housing price dropped to 14800 yuan per square meter. There are many factors that affect housing prices, but the most important one is that in 2023, due to the COVID-19 pandemic, many companies and job opportunities face difficult employment and income-generating conditions. Therefore, they can only maintain the operation of the company by reducing employee income and reducing the cost of production. This has led to many people's income increasing from 100% to 65%, 55%, or even less than 50%, which has resulted in them being unable to repay and obtaining advance benefits through any channels they had before the epidemic. So now they can no longer obtain the ability to repay their own debts through other means. They can only obtain money by selling their property, even if they are averse to losses. They are advised not to sell their property temporarily in order to recover the housing price and sell it at a higher price for more benefits. However, they have to sell their property in order to minimize losses. The author compares these two charts. Although the housing prices as of August 2023 are slightly higher than those in January 2022, they may have owed a lot of debt to repay during the pandemic. Therefore, the slight increase in housing prices is only a drop in the bucket for them, and because there are too many people who need to sell their properties, when it comes to making up for one's losses, the supply in the market exceeds demand. Therefore, in order to quickly sell off property, people can only lower their house prices again in order to achieve higher cost-effectiveness.

Loss aversion is considered a driving factor for the rigid decline in real estate market prices. During economic downturns, when the market price of their house is lower than the price they purchased, loss averse homeowners do not evaluate their house based on the previous price but anchor resale. Therefore, the downward adjustment of prices is slow, the sales time becomes longer, and there is a difference between the inquiry and transaction prices [3]. So, as an intermediary, how should one face this situation? Of course, intermediaries will definitely use the loss aversion of both buyers and sellers to promote and find a suitable price for this property. Faced with sellers,

intermediaries can use the seller's loss aversion to lower their housing prices. And you can tell the seller, 'Currently, there is an oversupply in the market. If you want to sell your property quickly, I can sell it.'. So the seller can only lower the price of the house to maximize its cost-effectiveness. Overall, sellers of houses tend to want to keep properties with rising prices and are unwilling to take on properties with falling prices, especially when prices begin to adjust, so the manifestation of loss aversion becomes more apparent [6]. So some people ask, if the agent lowers the housing prices so low, how should he sell these low-priced houses at the price he wants? Intermediaries will use the buyer's loss aversion to make them feel that there are not as many houses, because the agent is buying low-priced houses. The agent only needs to lower their house price slightly below the market price, and the buyer will think that they have already made a profit because the agent is selling a house price lower than the market price. The buyer's loss aversion will tell him that if he does not buy a house through this low-priced house channel now, he may not be able to buy a house in an era of rising house prices. Therefore, at this time, he will accept the house, which is only slightly lower than the market price. So, because the intermediary bought a house at a low price and sold it at a high price, as an intermediary, the agent will make a lot of money [7].

3. Loss Aversion of Real Estate Company

So the real estate company also has a reaction of loss aversion. In 2023, with the continuous rise of housing prices, the country aims to make more people able to afford a house, live in a house, and prevent a person or company from selling a house to raise housing prices and earn more money. Although many houses have been sold, their purpose is not to make people live, but a new type of stock trading. The government's policy of building more houses and limiting the number of houses each person can buy has led to housing prices, as more real estate projects have emerged, creating more competitive pressure and forcing prices to decline. Real estate companies have also lost many large clients due to national policies restricting their eligibility to buy a house. Many large clients have changed from being able to buy over 30 units at once to reselling their properties in order to protect their income. Real estate not only loses its customers but also causes its prices to drop again and again due to these sellers, which leads to the cost of building real estate. Even if all the houses are sold out, they may not be able to recover their capital. Therefore, although real estate companies made a lot of money before the policy came into effect, they had to use their previous income to make up for the gap after the policy came into effect. So, since income cannot be compensated and costs cannot be met, real estate can only reduce its own costs to build houses. However, reducing costs means poor construction quality, which may lead to problems with the quality of the houses and result in fines. In the absence of cost reduction or poor income, many real estate industries are facing bankruptcy. So, due to his aversion to loss in real estate, many companies gave up on the real estate project and switched to other industries.

4. Real Example

Previously, there was a very famous group in China called Evergrande Group. After Ever Grande joined the real estate industry, its investment in funds has been continuously increasing. However, with the impact of the three red lines, Evergrande's funds have also encountered problems. In order to continue the operation of its real estate industry and other industries, Evergrande can only make up for the gap by borrowing money. However, we all know that it is difficult to sell houses in recent years, which also indicates the development of the real estate industry. In such a situation of sluggish development, Evergrande's slow recovery of funds will continue to accumulate debt, so it is only and fastest way is to sell a house. However, as we mentioned earlier, due to many people wanting to buy their own house in recent years, including other real estate companies wanting to sell their own

property, you can only attract customers by lowering more prices. But people believe that you continue to sell your property, which proves that your company is starting to have problems. As long as the company cannot make people have confidence in your company, they will not buy your property because they are afraid that if your company has problems after buying the property, it will lead to them not having after-sales service and even affect the future situation of their house. So this is the fund that causes the snowball to roll bigger and bigger, making it more urgent to recapture the company's assets, giving people confidence in their own company and the inability to sell their own houses to make money to fill these gaps [8].

Loss aversion is a significant presence in the real estate industry and between real estate developers and consumers. It can not only control the psychology of consumers and real estate developers to adjust housing prices but also make both parties feel that they are not at a loss through this psychology, thus achieving a win-win outcome.

5. Application 2: Loss Aversion in Saving Energy

Taking a very simple example, many people choose to ignore the act of turning off the lights in their daily lives. Instead of only emphasizing the benefits of energy conservation, it is better to focus on the costs associated with resource waste practices. For example, time, energy, and money [9]. Only when we emphasize that people will incur cost losses if they do not turn off the lights, will they take it seriously. Because of their aversion to loss, they must resort to some means to avoid this loss.

In advertisements, we often see that by simply turning off the lights, you can save \$100 in annual revenue. But the actual effect is not so obvious because we may feel that this revenue is not very useful to them. If we change the advertising slogan to 'if you turn off the lights casually,' then you can avoid losing \$100 per year. In this way, people will definitely let themselves avoid a loss caused by not turning off the lights when they are disgusted with the loss. Because most people tend to think about loss aversion. If I were to lose \$100 every year, I would lose \$1000 and \$2000 over ten to twenty years. However, if I turn off the lights casually, I could completely avoid these unnecessary losses.

When it comes to electricity conservation, some elderly people use appliances that have already passed their lifespan at home, such as some old air conditioners and rice cooker fans. Due to a loss aversion, they are reluctant to throw away these previously purchased electrical products, even though they are using more electricity and spending more money than new appliances. But he still couldn't let himself lose these useless appliances. But using these old appliances will undoubtedly increase consumption, result in greater carbon emissions, higher electricity bills, and the cost of maintaining outdated appliances. These are all losses caused by the use of these old appliances. If the company is willing to recycle these old appliances for a certain price to purchase new ones, people will feel that this will help them reduce losses and purchase new appliances [10].

6. Conclusion

By summarizing this article, readers can gain an understanding of the significant impact that a loss averse mentality can have on the real estate market and how it affects fluctuations in housing prices. This psychological bias towards avoiding losses has been shown to play a crucial role in shaping individuals' decision-making processes when it comes to buying or selling properties. Furthermore, our deeper insight into how people place greater importance on financial losses due to their loss averse mentality highlights the need for policymakers and industry professionals to consider these behavioral factors when analyzing market trends and designing effective strategies. Understanding the underlying motivations behind buyers' and sellers' actions can help mitigate potential risks associated with sudden price drops or bubbles in the real estate sector.

Moreover, this research sheds light on why some homeowners may be reluctant to sell their properties even when faced with favorable market conditions. The fear of experiencing regret from selling at a lower price than anticipated often outweighs potential gains, leading individuals to hold onto their assets longer than they otherwise might.

In conclusion, by delving into the concept of loss aversion and its implications for real estate markets, we have expanded our knowledge about an important aspect of human behavior that significantly impacts housing prices.

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