

INVESTORS AND THEIR DECISIONS



A series of articles, this one being the 2nd, addressing investors and their decisions. In particular, whether other factors than rational considerations play a role in the investment decision process, and if so, what the practical consequences and applications are for investors. This article and the next one address “Cognitive biases” which may affect investors to make decisions on a non-rational basis.

COGNITIVE BIASES

In my first article in the series (“Homo Economicus?”) I already signalled that the concept of people (read: investors) making decisions rationally has become under fire by a relatively new approach to economic theory: behavioural finance, also referred to as behavioural economics. Generally, three scientists have become associated with its foundation: Daniel Kahneman, Amos Tversky and Richard Thaler (2). In 2002 Kahneman received a Nobel Prize (3) for his work in Prospect Theory, which provides a theoretical frame work for behavioural finance.



(1)

Behavioral Finance (4): A field of finance that proposes psychology-based theories to explain stock market anomalies. Within behavioral finance it is assumed that the information structure and the characteristics of market participants systematically influence individuals' investment decisions as well as market outcomes.

Before delving into biases, here is one notion worthwhile considering. This is that biases provide one possible explanation for the astounding fact, recorded time and again, that private investors underperform the mutual funds they invest in as well as the indices. A recent study shows that private investors underperformed the S&P500 by 5.92% p.a. covering a 20 year period (5).

Behavioural finance identifies many biases, the list is long (6)! Two types can be recognized: cognitive and

emotional biases. This and the next article address cognitive biases.

Cognitive biases influence the way we think. At the bottom of this page, readers will find a couple of test questions, which will give a direct experience about what these biases are about. The good news, according to adherents to the behavioural finance theory, is that cognitive biases, once recognized, can be corrected and there is also a suggestion that financial advisers can play an important role here(7). I will discuss 6 cognitive biases (of which 3 in this article):

TEST QUESTION 1 (12):

A town has two hospitals: one large and one small. Assuming there is an equal number of boys and girls born every year in the United States, which hospital is more likely to have close to 50 percent girls and 50 percent boys born on any given day?

- A. The larger
- B. The smaller
- C. About the same (say, within 5 percent of each other)

TEST QUESTION 2:

A team of psychologists performed personality tests on 100 professionals, of which 30 were engineers and 70 were lawyers. Brief descriptions were written for each subject. The following is a sample of one of the resulting descriptions:

Jack is a 45-year old man. He is married and has four children. He is generally conservative, careful and ambitious. He shows no interest in political and social issues and spends most of his free time on his many hobbies, which include home carpentry, sailing and mathematics.

What is the probability that Jack is one of the 30 engineers?

- A. 10-40 percent
- B. 40-60 percent
- C. 60-80 percent
- D. 80-100 percent

ANCHORING: FIXING YOUR MIND ON A SPECIFIC NUMBER

The tendency to focus too much on something first presented to you, leading you to falsely perceive the value or significance of all things around it (8).

- Classic example (9) : An audience in the US was divided in two groups, A and B. Both groups were asked what the number of countries is in Africa. However, before answering this question, both groups were asked to answer another question first, different for the A and B group. The A group was asked whether there are more than 5 countries in Africa and the B group whether there are more than 180. Interestingly enough the A group answered the second question with a much lower number than the B group. Both groups had “anchored” on either 5 or 180 and it had affected their answer;
- Investing example 1(10) : When investors “anchor” to the long term return of securities, e.g. 8%, without considering market conditions, volatility, inflation and so forth;
- Investing example 2 (11) : When investors believe that the nominal price of a stock matters when compared to another stock.

BANDWAGON: JOINING THE CROWD!

The “herding effect”, where you feel comfortable doing what many other people are doing. There is supposedly less risk in doing what many other people are doing, even if they are all engaging in the same irrational behaviour (13).

- Classical example (14) : Voters tend to go, in the latter part of election campaigns, with the winning party;
- Investor example 1 : Investing in a share because your friends/colleagues do;
- Investor example 2 : Investing or liquidating when most other people do;
- Classical antidote (15) : “Be fearful when others are greedy and greedy when others are fearful”, Warren Buffet.

GAMBLERS FALLACY: SETTING EXPECTATIONS TO WHAT IS RANDOM

When you erroneously believe that the onset of a certain random event is less likely to happen following an event or a series of events (16).

- Classical example (17) : When shown a sequence of coins flipped, where the 6 has come up each time, betting on any other number than the 6 as the next one coming up;
- Investor example 1(18) : Investors betting a stock will go down after a period of e.g. five upside trading sessions. The opposite: investors betting a stock will go down after a period of e.g. five upside trading sessions is referred to as “the hot hand bias” (19);
- Investor example 2 : Investors betting a stock fund will do poorly in the coming year because it has done well in the past years.

In my next article I will discuss 3 more cognitive biases.

EXPLANATORY NOTES TEST QUESTIONS (20)

QUESTION 1

Most people select answer C; we expect things to follow a proven pattern regardless of size. But size matters. A small sample size (i.e., the small hospital) will often contain extreme proportions, while a large sample size (i.e., the large hospital) will more likely reflect real-world distributions.

QUESTION 2

If you answered anything but A (the correct response being precisely 30 percent), you have fallen victim to bias.. When Kahneman and Tversky performed this experiment, they found that a large percentage of participants overestimated the likelihood that Jack was an engineer, even though mathematically there was only a 30-in-100 chance of that being true. This proclivity for attaching ourselves to rich details, especially ones that we believe are typical of a certain kind of person (i.e., all engineers must spend every weekend doing math puzzles) behavioural finance explains by the workings of our brains.

Notes:

- (1): From “A Visual StudyGuide to Cognitive Biases” by Eric Fernandez, Royal Society of Account Planning, Blogspot.com;
- (2),(3),(4),(6),(14),(17), (19) : From Wikipedia and Investopedia
- (5),(9): From “Cognitive Biases and Their Impact on Investment Decision-Making” by Jay D. Franklin, 27 June 2011
- (7),(10): From “Controlling the Urges: How biases influence our investment decisions” by Jay Mooreland, Jrnl of Fi PI May 13
- (8),(11),(13),(16): From “12 Cognitive Biases that prevent you from being rational” by Cullen Roche, 15 January 2013
- (12),(20): From “The quiz Daniel Kahnemann wants you to fail” by Jaime Lalinde, Vanityfair.com/businessfeatures/2011/12
- (15), (17), (18): “Behavioral bias-Cognitive vs. Emotional Bias in Investing” by Tim Parker, Investopedia



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