



## A Theoretical Overview About Behavioural Finance

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### ABSTRACT

*This article presents a new approach in the analysis of capital markets, namely behavioral finance. Behavioral finance is the study of the influence of the psychological factors on financial markets evolution. Financial investors are people with a very varied number of deviations from rational behaviour, which is the reason why there is a variety of effects, which explain market anomalies. Classical finance assumes that investors are rational and they are focused to select an efficient portfolio, which means including a combination of asset classes chosen in such a manner as to achieve the greatest possible returns over the long term, under the terms of a tolerable level of risk. Behavioral finance paradigm suggests that investment decision is influenced in a large proportion by psychological and emotional factors.*

**KEYWORDS :** behavioral finance, classical finance, market efficiency, investment decision, psychological factors, capital market, rational behavior

### Introduction

Behavioral finance, also referred to as behavioral economics, combines economics and psychology to analyze how and why investors make their financial decisions. The field of behavioral finance, which has much in common with the field of cognitive psychology, offers a theoretical explanation for the sometimes irrational or emotional choices and actions of investors (Salsbury, 2004). Despite the supposition of neoclassical economics that the market is efficient and that investors are rational, investing behavior and market behavior can be wildly irrational and inconsistent. As a result of the psychology of individual investors, stocks may be mispriced and markets may be inefficient. Behavioral economics offers an explanation for economic irrationality and economic anomalies in the market as well as a strategy for capitalizing on the unique psychology and decision-making processes of individual investors. Behavioral finance, which originated in the 1970s, gained prominence and legitimacy in 2002 when psychologist Daniel Kahneman won the Nobel Prize in economics for his work in the field of behavioral economics.

### The History of Behavioral Finance

The academic field of behavioral finance began in 1979 when psychologists Daniel Kahneman and Amos Tversky introduced prospect theory. Prospect theory introduced a rubric for understanding how the framing of risk influences economic decision-making. Amos Tversky and Daniel Kahneman developed the field of behavioral finance through their work on the psychology of risk. Their work, and behavioral economics in general, challenges the basic assumptions of rationality inherent in the classical economic model of decision-making. Tversky and Kahneman studied three main areas: Risk attitudes, mental accounting, and overconfidence (Litner, 1998).

- **Risk attitudes:** While classical economic theory argues that investors are averse to risk, behavioral finance holds that investors exhibit inconsistent and often conflicting attitudes toward and about financial risk. Tversky and Kahneman found that investors have an individualized reference point for risk and will be most sensitive to risk when that reference point is reached.
- **Mental accounting:** While classical economic theory argues that money is fungible and interchangeable, behavioral finance holds that money is not completely fungible for most people. Tversky & Kahneman developed the idea of individualized mental accounts to explain why money is not wholly fungible for most people. Mental accounts, a wholly intangible form of accounting, contain financial resources that for personal and often irrational reasons are not easily transferred.
- **Overconfidence:** While classical economic theory argues that investors are rational decision makers who use the financial information that is available to them, behavioral finance holds that investors are prone to overconfidence and biased decisions. Tversky & Kahneman found that investors were often overly optimistic about investment decisions, overestimated the

chances of financial success, and overestimated their financial knowledge.

In 2002, Daniel Kahneman received the Nobel Prize in economics. Richard Thaler was another important early contributor to the field of behavioral finance. Richard Thaler, in the 1980s, extended the scope of behavioral finance by making stronger connections between psychological and economics principles (Lambert, 2006). The field of behavioral finance has grown over the last three decades in large part as a result of the support that the field received from universities and research institutions

### Human Behavioural Theories

In order to explain the various irrational investor behaviors in financial markets, behavioral economists draw on the knowledge of human cognitive behavioral theories from psychology, sociology and anthropology. Major theories used include:

#### Prospect Theory

Tversky and Kahneman (1979) by way of developing the Prospect Theory showed how people manage risk and uncertainty. In essence, the theory explains the apparent regularity in human behaviours when assessing risk under uncertainty. That is, human beings are not consistently risk-averse; rather they are risk-averse in gains but risk-takers in losses. According to Tversky and Kahneman, people place much more weight on the outcomes that are perceived more certain than that are considered mere probable, a feature known as the "certainty effect". Peoples choice are also affected by 'framing effect'. Framing refers to the way a problem is posed to the decision maker and their 'mental accounting' of that problem.

The value maximisation function of the Prospect Theory is different from that of the value maximisation function of MPT. Wealth maximisation is between gains and losses, rather than over the final wealth position as in MPT (Markowitz, 1952). As such, people may make different choices in situations with identical final wealth levels. Critical to the value maximisation is the reference point from which gains and losses are measured. Usually, the status quo is taken as the reference point and changes are measured against it in relative terms, rather than in absolute terms.

#### Judgement Under Uncertainty

The following theories summarise how people form beliefs under uncertainty.

**Overconfidence:** Alpert and Raiffa (1982) showed that people are poorly calibrated in estimating probabilities and usually overestimate their precision of the knowledge and ability to do well. People are also overconfidence about good things happening in future than bad. In addition, people overestimate their confidence to the past positive outcomes and usually recall only their successes than their failures.

**Fear of Regret:** Human beings have the tendency to feel the pain or the fear of regret at having made errors. As such, to avoid the pain of regret, people tend to alter their behaviour, which may end up being irrational at times. Linked with fear of regret is 'cognitive dissonance', which is the mental suffering that people experience when they are presented with the evidence that their beliefs have been wrong (Shiller, 1995).

Tversky and Kahneman (1974) identified the influence of human heuristics on the decision-making process. Tversky et al. defined heuristic as a strategy that can be applied to a variety of problems and that usually—but not always—yields a correct solution. People often use heuristics (or shortcuts) that reduce complex problem solving to more simple judgmental operations. Three of the most popular heuristics discussed by Tversky et al. include:

**Representativeness heuristic:** What is the probability that person A (Steve, a very shy and withdrawn man) belongs to group B (librarians) or C (exotic dancers)? In answering such questions, people typically evaluate the probabilities by the degree to which A is representative of B or C (Steve's shyness seems to be more representative for librarians than for exotic dancers) and sometimes neglect base rates (there are far more exotic dancers than librarians in a certain sample).

**Availability heuristic:** This heuristic is used to evaluate the frequency or likelihood of an event on the basis of how quickly instances or associations come to mind. When examples or associations are easily brought to mind, this fact leads to an overestimation of the frequency or likelihood of this event. Example: People are overestimating the divorce rate if they can quickly find examples of divorced friends.

**Anchoring and adjustment :** People who have to make judgements under uncertainty use this heuristic by starting with a certain reference point (anchor) and then adjust it insufficiently to reach a final conclusion. Example: If you have to judge another person's productivity, the anchor for your final (adjusted) judgement may be your own level of productivity. Depending on your own level of productivity you might therefore underestimate or overestimate the productivity of this person.

### Empirical Evidence from the Stock Market

Barber and Odean (1999) highlighted two common mistakes investors make: excessive trading and the tendency to disproportionately hold on to losing investments while selling winners. They argue that these systematic biases have their origins in human psychology. The tendency for human beings to be *overconfident* causes the first bias in investors, and the human desire to avoid *regret* prompts the second.

The behavioral models have been most successful in explaining stock price anomalies related to overreaction, underreaction, momentum strategies, herding behavior, firm size effect and BV/MV ratio effects. Barberis, Schleifer, and Vishny (1996) formulated a model of security price over and under-reaction to information when investor judgment is biased by conservatism and the representativeness heuristic. Daniel, Hirshleifer, and Subramanyam (1998) explained event-related security price anomalies according to the cognitive biases of investor overconfidence and self-attribution. Daniel and Titman (2000) explained the superior returns of a momentum investing strategy over the past 35 years as the result of investors' overconfidence bias.

Dremen and Lufkin (2000) presented evidence that investor under and overreaction exist and are part of the same psychological process. Chan (2001) found that a large stock price change, unsupported by news, on average was followed by a statistically anomalous price trend reversal over the next month. Chan (2001) illustrated the price trend reversals often occur when a majority of market agents follow the same investing strategy (buying or selling), unsupported by new information. Evidence of investor herding is presented.

Schacter, Ouellette, Whittle and Gerin (1987) demonstrated investors' tendencies to reinforce existing price trends and brief price reversals. Statistical support for the idea of a general conformity in investors' behavior preceding price trend reversals ("contrarianism") is shown

by Chan (2001). Chopra, Lakonishok, and Ritter (1992) provided compelling evidence in support of the idea that investors make irrational forecasts of future cashflows. If excessive optimism or pessimism is driving these irrational forecasts, then earnings announcement dates should provide the impetus

for correction. Barberis and Thaler (2001) confirmed that the data does indeed show anomalous corrective activity following earnings announcements from these companies. Barberis et al. provide a comprehensive review of behavioral finance literature.

However, Shiller (1998) suggested that descriptions of overreaction and underreaction are not likely to be good psychological foundations upon which to organise a general theory of economic behavior. Cognitive biases inadequately identify the behavioral motivations causing price anomalies

### Behavioral finance - an original approach to capital markets

The field of modern finance has registered remarkable progress in the last decades. Behavioral finance is a new approach to capital markets, having an important role in financial decision making process. Decision making related with behavioral finance, can be defined as the process of choosing a particular investment alternative from a number of alternatives. It is an activity that follows after proper evaluation of all the alternatives (Mathews, J., 2005).

In the 1960s cognitive psychology began to shed more light on the brain as an information processing device (in contrast to behaviorist models). Psychologists in this field, such as Ward Edwards, Amos Tversky and Daniel Kahneman began to compare their cognitive models of decision-making under risk and uncertainty to economic models of rational behavior. In mathematical psychology, there is a longstanding interest in the transitivity of preference and what kind of measurement scale utility constitutes (Luce, 2000).

In 1979, Kahneman and Tversky wrote Prospect theory: An Analysis of Decision Under Risk, an important paper that used cognitive psychology to explain various divergences of economic decision making from neo-classical theory. According to Sewell (2005), behavioural finance is the study of the influence of psychology on the behaviour of financial practitioners and the subsequent effect on markets.

Barberis and Thaler (2001) consider that behavioral finance has two building blocks: limits to arbitrage, which argues that it can be difficult for rational traders to undo the dislocations caused by less rational traders and psychology, which catalogues the kinds of deviations from full rationality we might expect to see.

Fromlet (2001) proposed the following definition : "behavioral finance closely combines individual behavior and market phenomena and uses knowledge taken from both the psychological field and financial theory".

However, first of all, behavioral finance must be understood as an area in full development with major implications for the manner in which the investment process is directed. In other words, behavioral finance is a broad visions paradigm which is trying to understand and to forecast financial markets based on psychological and emotional implications.

According to some researchers, behavioural finance states the features of interpretation and action based on the data for organized investing decisions by individuals. In Thaler opinion, behavioural finance defines that some of the economical factors sometimes may not treat rationality based on the assumption and Olsen also says, behavioural finance is the psychological decision process in recognition and prediction of financial markets (A. Talangi, 2004).

Strictly speaking, behavioral finance represents an area of research that attempts to understand and explain how reasoning or cognitive errors influence investor decisions and stock market prices. Thus, behavioral finance combines principles from the fields of individual and social psychology with classical financial theory to understand and highlight the performance of stock markets.

In consequence, the behavioral finance area is summarized in essence to explain financial market anomalies on the basis of the study of investors' behavior and decision making process.

Metaphorically speaking, behavioral finance it is an alternative solution to the difficulties faced by the classical theory in explaining certain financial phenomena. In deep contradiction to the classical paradigm, behavioral finance assumes that investors may be irrational in their reactions to new information and investment decisions.

In these conditions, it can be difficult, if not even impossible for rational traders to undo the mispricing caused by irrational investors due to existing limits of arbitrage. Actually, the limits to arbitrage theory demonstrates that if irrational traders cause deviations from fundamental value, rational traders will often be powerless to do anything about it.

According to some specialists, such as Shefrin, there are three themes predominate in behavioral finance and economics :

- a) Heuristics: Investors often make decisions based on approximate rules of thumb, without relying on a logical reasoning.
- b) Framing: The collection of anecdotes and stereotypes that make up the mental emotional filters individuals rely on to understand and respond to events.
- c) Market inefficiencies: These particular characteristic includes mis-pricings, non-rational decision making, and return anomalies.

### Conclusion

The increasing analysis of the human element in the stock market, a market which is much more rational, has quality available data and is more efficient than the property market, makes behavioural-based research critical for analysing property, a market which is segmented, suffers from unavailability for quality data, is less informed and inefficient and has a high presence of the human element. As such going forward the challenge for the property analysts is to properly analyse the human elements within the various property decision-making phases and then develop the trading and investment strategies, which draws upon the knowledge of both the traditional and behavioural framework. The behavioral research issues discussed and analysed in this paper, sets the path for developing such a combined strategy for property investment.

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