



## BEHAVIORAL FINANCES - AN OVERVIEW

M. Vladimirov<sup>1\*</sup>, M. Pencheva<sup>2</sup>

<sup>1</sup>University of Varna, Varna, Bulgaria

<sup>2</sup>University of Rousse, Rousse, Bulgaria

### ABSTRACT

The purpose of the paper is to outline an overview on the development of the behavioral finances. There are introduction of concepts on market efficiency, market irregularities, behavioral finances and some factors upon the latter.

**Key words:** market efficiency, market irregularities, behavioral finances

### CONTEMPORARY PORTFOLIO THEORY

Thrust toward the economists obviously gets down after the beginning of the current economical crisis. The faith in the efficient market and its invisible arm comes to an end. It is time for behavioral economics, which holds that people are fundamentally irrational actors. The common financial and investment theory is based on the theory of H. Markowitz, „W. Sharpe, the „Capital Asset Pricing Model - CAPM”, the Merton and the Black-Scholes option pricing model. This approach to market effectiveness is quite analytical and normative. The investment theory if based on the assumption that market actors behave rational in two ways. Firstly, investors tend to take risks, thus the marginal utility of the wealth decrease. Secondly, it is investors rationality in decision making process, thus the price of the bond papers is equal to their fundamental value. It is just a discount amount of future cash flows while investors take into consideration the all available information on the market into the process of prognosis and evaluation. When a new information on the fundamental value is introduced to the market, the investors react to it thus each piece of new information is embedded in the prices. This is the Efficient Markets Hypothesis.

**Correspondence to:** Miroslav Dimitrov  
Vladimirov, University of Varna,  
Bulgaria/Principal Assistant Professor, Phone+359  
52 660 461, [vladimirov@ue-varna.bg](mailto:vladimirov@ue-varna.bg)

### 1. Market Efficiency.

Traditionally the market efficiency is divided into three versions: strong, semi strong and weak. According to the weak one, the prices of stocks reflect all the available information on the market upon the historical prices, trade volumes and etc. Thus the analysis of the historical prices would lead to no practical outcome because all the investors would have already taken advantage of it since the data is public. The semi strong form of the efficient market hypothesis puts into words that while all the data on the market outlook upon any corporation is available to public, the account information is already imbedded into the share prices. All the investors have access to this information from public accessible sources. Lastly, the strong version of the efficient market hypothesis claims that the share prices reflect all the available information, even if it is „staff only”. Generally speaking the information which could be used for share prices projection is already embedded into their prices. Thus the share prices should increase or decrease only if there is new information on the spot. That new information should be unpredictable, because in other case the prognosis would be a part of the information from today.

### 2. Market Irregularities

Market efficiency is subject to analysis and shaping, and will be. In 1953 M. Kendall (“The Analysis of Economics Time Series, Part I” Journal of Royal Statistical Society”

1953) designed one of the first surveys on the efficiency of the stock markets. His purpose has been to examine if there are any predictable schemes for stock prices behavior. The results show that random changes illustrate one well functioning in sense of efficient market. Similar survey has been preceded from Fama (Eugene Fama. "The Behavior stock prices" Journal of Business 1965), who examines daily variation of the prices. This survey is in favor of the conclusions made by M. Kendall. The market efficiency has been in the research focus of James Tobin who suggests and defines a few aspects of market efficiency. The first designed and used model for investigation of the share prices behavior is the model of the „happen to walk” and the first survey is carried out by Kendall. The other model, not so restrictive, is the Martingail model. The linkage between the market efficiency and the Martingail model has been firstly developed by Pol Samuelson ("Proof that properly anticipated fluctuate randomly" Ind. Manage. Rev.). One of the well known surveys in the area of efficiency is the survey of Fama, Fisher, Jensen and Roll ("The adjustment of stock price to new information" International Economic Review 1969 ). They use two indicators e.g. the over profit before and after capital sharing and the accumulation of over profit. Their analysis proves that the capital sharing could not be used as a source of over profitability.

Another direction of survey and analysis is the presence of calendar irregularities. Their existence challenges the Efficient Markets Hypothesis. According to the hypothesis, the market is efficient if all the available information is embedded in the bond prices. Thus the market prices could be predicted on the information based on their historical development. The appearance of the calendar irregularities means inefficient markets and gives food to the investors to do a profit which is not reciprocal to the risk they take. Robert A.) "Monthly Effect in stock Returns" *Journal of Financial Economics* " March 1987) has examined the profitability of the securities on the New York Stock Exchange for the period of 1904-1974. His analysis reveals that the securities profitability in January is much higher \average 3%\ in comparison of the rest of the months which is called the January Effect. Other researchers (Anver, Arbel.and Paul.J.Strebel. "Pay Attention to Neglected Firms" *Journal of Portfolio Management*" winter 1983)

interpret the effect of January a little bit different. They are in favor of thesis that the institutional investors neglect little companies, thus the information is less available for them; as a result they are more risky. They call it the „neglected company effect”. The informational shortage could be measured by the variation of the forecast profit coefficient. Those researchers classify the surveyed corporations into three groups depending on the scope of information that examined corporations have gathered. The January effect has been stronger about the neglected companies.

## BEHAVIORAL FINANCES

Behavioral finances \BF\ is new approach in complement to the contemporary financial theory which introduces behavioral aspects in the investment decision making. BF opposes to the Sharpe and Markowiz approach is focused on the methods for informational usage adopted by the decision makers. The aim of the BF is to assess the implication on physiological processes upon decision making for investment purposes.

### Evolution of behavioral finances

The beginning is laid down by Adam Smith. Despite his ideas shape the perception that people are rational decision makers, he is the author of Moral Senses Theory in which he recognize that imperfect human physiology influence economical decision making. In 1955 the philologist Herbert Simon introduces term restricted rationality, according to which people do not precede information in perfect manner. In 1979 Amos Tversky and Daniel Kahneman publish their Prospect Theory - studies of how people manage risk and uncertainty. According to it the formulation of different options it self is as important for the decision making as the options them selves. Later on (1988) Hersh, Shefrin and Richard Thaler introduce a model according to which people prefer instant satisfaction but maintaining sustainable consumption level. (FP) After that the popularity of the behavioral aspects in decision making grows and it becomes a separate academic subject and research focus.

The aim of every financial model is to explain the processes of assets price formation, investors' preferences in other words - how investors assess the risk. The assumption that investors evaluate the risk by criteria expectations - usefulness is adopted by the majority of those models. Theoretical ground for this is provided by the utility function of fon Noyman and Morgenshein (1944), which shows

that if the preferences fulfill few axioms - completeness, continuity and independence, could be described of utility function. Unfortunately, lots of surveys along with the reality shows that people break the expectations - usefulness criteria and make risky choice. As a result weighted-utility theory emerges [Chew and MacCrimmon (1979), Chew (1983)], implicit EU [Chew (1989), Dekel (1986)], disappointment aversion [Gul (1991)], regret theory [Bell (1982), Loomes and Sugden (1982)], rank-dependent utility theories [Quiggin (1982), Segal (1987, 1989), Yaari (1987)], and prospect theory [Kahneman and Tversky (1979), Tversky and Kahneman (1992)].

As it was already mentioned the major factor common for the BF are factors which influence the decision making process. They could be pointed up as follows:

- *Heuristic* - the amount of the information speeded out increases rapidly in the global world of dominated by the high technologies. Stock managers and investors as a hall need to proceed, synthesize and analyze the data in order to be able make investment decision. It requires heuristic skills. These are skills for rapidly pick and choose interpretation based on intuition mainly. The results depend on the ability to select the most important, the most accurate information and to assimilate it fast. In that case the selection skills are critical because the stock market generates huge amount of information.
- *Asymmetry Information* - all the available information is not that available to all market players despite the market efficiency hypothesis. The asymmetrical information is the reason for the variety of decision. Even if investors are exposed to particular information they will not necessary come up with similar decisions. They depend on the investors ability to analyze the information as well as the previous experience.
- *Preferences toward particular information* - the investors make prognosis based on their knowledge and experience which is the ground for their decisions. However, the outcome could be different from the forecast. What is more the market dynamics leads to prognosis revision. Anchoring to own prognosis and positions could lead to neglecting of a critical information, especially if there is news in favor of the already done prognosis.
- *Interpretation differences* - analyzers make different conclusions based on one and the same data. The crises we witness proof it. We could find completely different forecasts

on crisis development. In the scope of BF are the differences in usage of one and the same data.

- *Physiology of communicational coding* - in many cases the manner of formulation and delivery of any message is critical.
- *Representation* - there is a chase to stress on few minor reports, analysis, prognoses and to trust them. Statement of public leaders could also over influence the decision making process. The current crisis shows that some economists were too pessimistic.
- *Over confidence and control* - Robert Shiller describes the overconfidence; an issue widely explored in the BF as follows „often people think that they know more than they really know”. The overconfidence is common characteristic for people who make decisions and consider themselves as experts. Often they believe that they can control the situation even if they could not even influence it.
- *Partiality* - traditionally investors prefer domestic stock exchanges then international markets even though we live in global world and the latter could be better option in a long run. However this trend is about to change, probably in the future lots of portfolios would be diversified.
- *Follow the flock* - „do what others do” type of behavior is an issue in FB theory from a long time. The investors who have proved to be experts are an object of attention of all market players.

BF could be valuable complement to the dominating contemporary portfolio theory. Examination of the physiological factors in a decision making process could explain lots of thing which contradict the conventional theory and to support accomplishment of successful strategies.

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