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Short Review Paper

A survey of behaviorial finance

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Abstract

Traditionally, it is believed that participant of Financial Market are fully Rational and Markets are fully efficient. This belief has got prolonged effect in developing theories of Financial Markets. There were some instances in Financial Market operation which could not be explained by traditional Finance practice nor. To explain these phenomena academician looked towards Behavioral Finance as the key. This paper examines some basic tenets on which Behavior Finance stand. The primary distinction in assumption of traditional Finance practice nor and Behavior Finance practice nor is also discussed. It is concluded that though Behavior Finance might explain some anomalies of Financial Market a great deal of work need to be done to find out factors which lead to such anomalies.

Keywords: Behavioral Finance, Psychological Biases, Retail Investor, Limit to Arbitrage, Noise Trader Risk.

Introduction

While interpreting the behavior of asset price movement it is believed that the participant of Financial Market are professional and "rational". This means that each participant firstly update their belief correctly when they receive new information about any asset and they do so according to 'Baye's Law'. Secondly, the agent update their belief in such a way that it is in accordance with the theory of subjective utility (SEU) as given by 'Savage[1]'.

Though this framework has appeared to work in past history and is easily understood, being very simple, there are many instances where the traditional finance model failed to explain aggregate stock return or individual trading behavior.

In order to seek explanation to these unexplained instances a new field has emerged known as Behaviorial Finance. In broader terms Behaviorial Finance argues that all agents taking part in Financial Market are not 'rational'. And when they are not' rational' we can find explanation to some unexplained instance by assuming that agent either breaks one of the two tenants of' rationality' assumption. Either they are not able to capture new information effectively or they do not act according to SEU theory in incorporating that information.

This review of literature evaluate some recent work in the field of Behaviorial Finance. In later section the challenge to Behaviorial Finance is discussed which states that even if it is assumed that all agents are not fully 'rational' the' irrational' agents cannot creat a long term mispricing known as 'arbitrage' since the rational agent will prevent them from doing so. The theory that contradict Behaviorial Finance tenant in this way is known as Limit to Arbitrage'. It is one of the two building block of Behaviorial Finance.

In the next section the type of irrational behavior and the likely causes of it is discussed. The answer to the form of irrationality exhibited by some agent lies in the fact that how people form 'belief' and how people make 'preference' judgments to make decision. This is actually the second building block of Behaviorial Finance and have its root in discipline of Psychology.

Limit to Arbitrage

Market Efficiency: In an efficient market, traditional finance practioner assumes that the price of the security in the market is it's intrinsic value, which can be thought of as the discounted value of expected future cash flows discounted at appropriate discount rate. This assumption that the market price of security is equal to their fundamental value is known as Efficient Market Hypothesis (EMH). The reason for reflection of true value of the security in Market price of that security is due to the fact that the agent buying or selling the security update their belief about the security, when new information arrives and they do so in accordance with Baye's Law. In Efficient Market there is no agent can take benefit of inaccurate pricing of security and could not generate above average risk adjusted return.

Behavior Finance practitioner argue that the security price do move away from there fundamental value, and this is due to the presence of irrational trader who derive the value of security according to there belief and preferences. Friedmen[2] opposed this view of creation of mispricing due to the presence of irrational traders. I n support of his argument he proposed that there will be adequate number of 'rational' traders who will exploit the mispricing opportunity created by 'irrational' trader and and will bring the security price to it's fundamental value. Friedman's[2] argument is based on two assumption firstly that

mispricing in security is created due to the presence of irrational traders. Secondly the 'rational' trader will soon grab this opportunity to make riskless profit and in turn will bring the price of security back to it's fundamental value. Behaviorial Finance proponent did not argue about the first assumption from front but they do quote that the opportunity caused due to mispricing is neither riskless and it also carries a cost to exploit it.

Theory underlying 'Limit to Arbitrage': Fundamental Risk: It should be believed that if the mispricing in the security is such that the irrational trader have forced a price of a security to fall to a certain level, which is lesser then the fundamental value of the security.

Now if the arbitrager which in our case a 'rational' trader want's to take benefit of this mispricing by buying the security at market price and hoping that it will increase to come back to it's fundamental value. But the trader will be aware that the security price might fall further so to hedge it's position he will have to find a security which closely resemble with the security in question and then he will have to short this security. Now it might be possible that exact substitute of security is no available and even it is available the brokers are not ready to lend this security for short sale position.

Noise Trader Risk: 'Summer'[3] in his 1985 presidential address to American Finance association coined the term 'Noise Trader'. These Trader are not 'rational 'as they will like to purchase risky security on the basis of recommendation, belief and would not rely on fundamental value. De Long et al (1990a)[4] and later by Shleifer and Vishney[5], is the risk that the mispricing being exploited by the arbitrageur worsens in the short run. Even if some security is a perfect substitute security for the one for which one want to exploit mispricing, the arbitrageur still faces the risk that the pessimistic investors causing that security remain undervalued in the first place become even more pessimistic, lowering its price even further. Once one has granted the possibility that a security's price can be different from its fundamental value, then one must also grant the possibility that future price movements will increase the divergence. If this divergence increases due to the activities of noise trader then the 'rational'. Investor might want to liquidate its position early bearing them losses.

Another aspect of 'Noise Trader Risk' in creating the Limit to Arbitrage is the agency features when arbitrager is the professional fund manager of a Mutual Fund. In the words of Sheifer and Vishny[5] there is a separation of 'brain and capital' in case of Mutual Fund. Since the Mutual Fund manager will be valued on the return which he will generate and not on the strategy he employed, in fear of mispricing diverging further he might close his position prematurely to limit the potential loss.

The same problem is there in case the fund are from creditors who in fear of the collateral losing value in directly pressurize the manager to liquidate his position early.

Implementation Cost: Transaction cost such as commissions, bid-ask spread and price impact can have a influence on implementing the arbitrage strategy. Similarly most of the arbitrage strategy involves short sale of the security. Short in most of the cases carries substantial cost of borrowing. D'Avolio[6] finds that for most of the securities the cost of borrowing ange from 10-15 basis points. Other then fee there may be some legal constraint in going for short sale.

In this category the cost of finding and learning about mispricing as well as the cost of resource needed to conduct an arbitrage is also discussed[7].

Psychology

The Theory of Limited Arbitrage states that if the mispricing is casused in security price by the action of 'Noise Trader' the rational trader will not be in the position of exploiting this opportunity due to Fundamental Risk, Noise Trader risk and implantation cost of strategy. In order to investigate that how or why the 'irrational' trader causes mispricing Behaviorial Finance Economist looks towards the decipline of Pyschology. The financial economist on referring to the work of Camerer[8] and Rabin[9] and to the edited volumes of Kahneman, Slovic and Tversky[10], Kahneman and Tversky[11] and Gilovich, Griffin and Kahneman[12] discover that it is 'belief' and 'preference of irrational investor which can provide explanation to this.

Overconfidence: While choosing to decide on buying certain security 'Noise trader' are mostly overconfident in their approach. This overconfidence effect come into two stages. Firstly, the confidence level they assign to the level of price a security would fetch is only correct 80% of the time as shown by Alpert and Raiffa[13]. Secondly, if they assume that certain event is bound to occur it actually occur 80% of the time and the impossible event according to them occur 20 % of the ,this is well supported by experimental results by Fischhoff, Slovic and Lichtenstein[14].

Representativeness: When making decisions or judgments, we often use mental shortcuts or "rules of thumb" known as heuristics. Sometimes these mental shortcuts can be helpful, but in other cases they can lead to errors or cognitive biases. The representativeness heuristic was first described by psychologists Amos Tversky and Daniel Kahneman during the 1970s. When we make decisions based on representativeness, we may be likely to make more errors and more likely to overestimate the likelihood that something will occur. Just because an event or object is representative does not mean that it is more likely to occur. Suppose a trader is looking at a security with the one which is growing and having very bright prospect, but actually the probability of overall sector in which that security is on the downside, so obviously there is a high probability of the stock going down. Even then due to representativeness biase the investor is more likely to buy that stock since that stock is represented very brightly to him.

Belief perseverance: There is much evidence that once people have formed an opinion, they cling to it too tightly and for too long[15]. This is due to two reason first people are reluctant to search for evidence that contradict there belief and secondly even if they find such evidence they treat it with skepticism.

Anchoring: People often give much importance to the initial estimate which they assumes. For example if you ask a person to estimate the percentage of student who will fail the final exam and give them a random number as a base then people who are given a lesser random number say 10 are likely to give percentage much lower say 25% then to people who are given a random number 60 who will likely to estimate let us say 45%.

Availability biases: People often consider event that are close to there memory with more weights the assigning weights to events which they can't recall. So a trader having profit in a recent trade on particular security is more likely to invest in that security again even if in reality the security is not so attractive for investment now.

Conclusion

Traditional finance theories are unable to explain anomalies in the market, at various instances. Behavior Finance tries to show certain direction in explaining unpredictable behavior of investor and Financial Markets. Then also it fall short of explain the root cause of unusual pattern in Financial Market trading. The unanswered question opens a huge window of opportunity for new research to be initiated in the direction of explaining the reason, due to which agent act in unusual manner.

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