

# The emh, the financial crisis and the behavioral finance

[Finance](#)



The EMH, the Financial Crisis and the Behavioral Finance<sup>1</sup>. Introduction The Efficient Market Hypothesis (EMH) that was first proposed by Fama (1965, 1970) is the cornerstone of the modern financial economic theory. The EMH argues that the market is efficient and asset price reflects all the relevant information concerned about its return. The genius insight provided by the EMH has changed the way we look at the financial crisis thoroughly. However, the confidence in the EMH is eroded by the recent financial crisis.

People can not help to ask: if the market is efficient and the price of assets is always correct as suggested by the EMH, why there exists such a great bubble in the financial market during the recent financial crisis? Apart from that, the EMH has even been criticized as the culprit of the recent financial crisis. (See Nocera, 2009 and Fox, 2009) Actually after the EMH was proposed, many anomalies have been found in the financial market and financial economists have developed many theories in order to explaining these anomalies.

Among these the most influential one is the so called behavioral finance, which argues that the complex human behavior plays an important part in determining asset prices. The rest of the essay is arranged as follows. Section 2 explains what the EMH implies and its limitations. Section 3 emphasizes on explaining the usefulness of the EMH in the context of the recent financial crisis. Section 4 focuses on interpreting the behavioral finance. Section 5 concludes the essay. 2. The implications of the EMH According to Ball (2009), the implication of the EMH can be summarized as follows.

The implication of the EMH can be decomposed into two parts. The first insight of the EMH is related to the most profound insights of classical economics, that is, there is no excess profit in a complete market, which is due to the fierce competition in the market. If there exists excess profit in such a market, then the entry of new producers will eventually eliminate it. The second insight is that information is symmetric dissemination, which implies that information can flow freely in the market without cost and time lag.

Putting these two parts of insights together, the EMH implies that the market is efficient and asset prices reflect all the relevant information concerned about its return, and that investors can only get commensurate return with the cost of exploiting information due to the competition in the market. According to the EMH, people can only expect to get average return in the stock market and it is impossible to beat the market continuously. Note that it is futile to exploit information in order to get abnormal return does not mean that no one should act to exploit information.

As a matter of fact, the EMH is a natural result of the fierce competition in the market---if there is no competition in the market, the market can not be efficient. In other words, asset price can not reach its equilibrium level automatically. Ice-cream producers face fierce competition from other producers in the market and it is impossible for them to get abnormal profit, but it is foolish for ice-cream producers to stop making ice-cream because they will get nothing if they do not work.

Fama (1970) classifies the market into three categories: the weak form efficiency, the semi-strong form efficiency and the strong form efficiency. In <https://assignbuster.com/the-emh-the-financial-crisis-and-the-behavioral-finance/>

the weak form efficiency market, asset prices reflect all the historical information, so it is impossible to obtain abnormal return using historical data and technological analysis is useless. In the semi-strong form efficiency market, asset prices reflect all the information that is publicly available, and thus it is impossible to get abnormal return using publicly available information.

In the strong form efficiency market, asset prices reflect all the relevant information, including all publicly available information and inside information, so investors can only get average return and it is impossible to beat the market. 3. The performance of the EMH in explaining the recent financial crisis During the recent financial market, the stock market fell sharply, banks went bankrupt and the financial system was damaged seriously. This financial crisis has eroded the confidence in the EMH.

The validity of the EMH and the existence of the efficient market are questioned broadly. If asset prices are always correct and reflect all the relevant information concerning about its return just as the EMH has suggested, why there exists such a great bubble in the financial market during the recent financial crisis? If the market is efficient, why the market fails to predict the collapse of Lehman Brothers, Bear Stern and other large financial institutions? Overall, the EMH fails to answer such questions.

Moreover, the EMH also performs poor in explaining other financial crisis. One example is the Tulipmania that occurred in the 17th century. The prices of the tulip bulbs reached extremely high level which seriously deviates from its fundamental value that was suggested by the EMH. This apparent bubble is contradicted with the prediction of the EMH. In fact, the explaining power <https://assignbuster.com/the-emh-the-financial-crisis-and-the-behavioral-finance/>

of the EMH becomes pale when confronting financial crisis. The EMH does not assume that investors are rational, but the EMH does assume that the market is efficient. But the reality may not be that simple.

Investors may exhibit a lot of irrational behaviors in the real life, such as overconfident in their ability, following others readily, making wrong decisions when in exuberant state, and so forth. These irrational behaviors of investors without doubt will weaken the explaining power of the EMH. Apart from that, the EMH assumes that information is symmetric dissemination and can flow freely without cost and time lag, but information in the reality may not be symmetric disseminated, information may not be able to flow freely, this will also affect the validity of the EMH in explaining asset prices in the real life.

Besides, factors such as sociological factors also play a part in determining asset prices. In author's opinion, asset price is just like a glass of beer. At the lower part of the glass is the real beer, representing the intrinsic value of the asset that can be explained by the EMH. At the upper part of the glass is the foam, representing values that can not be explained by the EMH. In other word, the EMH can not explain bubbles, which is the systematic deviation of asset prices from their fundamental value.

The EMH has even been criticized as the culprit of the financial crisis. In Nocera (2009) and Fox (2009), both of them believe that the notion of efficiency was responsible for the financial crisis. They argue that since the market is efficient and asset prices reflect all relevant information, the investors and supervisors feel it is unnecessary to look into the intrinsic

value of assets, and so fail to be aware of the asset price bubbles, thus the financial crisis occurs.

Actually, not soon after the EMH was first proposed, scholars have found many anomalies that contradict with the prediction of EMH. De Bondt and Thaler (1985, 1987) found that investors tend to overreact to unexpected news and events and such irrational behavior affects stock prices; Jegadeesh and Titman (1993) found that investors using trading strategies that buying past winners and selling past losers can get abnormal returns during the period 1965 to 1989. De Long, Shleifer, Summers and Waldman (1990) argue that some anomalies such as the excess volatility of asset prices, the mean reversion in stock prices, and so forth, can be explained by the notion of noise trader risk. These studies have challenged the validity of the EMH. 4.

The behavioral finance As has been described before, there are many anomalies that can not be explained by the EMH. Objectively speaking, these anomalies give impetus to the development and breakthrough of financial economic theories. Scholars so far have developed many models so as to explaining there anomalies, among which the most influential one is the behavioral finance.

The behavioral finance takes psychological factors into account when determining asset price. According to Fuller (2000), the behavioral finance can be described in three ways. In the first way, he thinks that the behavioral finance is the integration of psychology and decision making science with the classical financial economic theory. In the second way, he views the behavioral finance as an attempt to explain the anomalies that have been observed and reported among current literatures in the financial market.

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In the third way, he thinks that the behavioral finance is a discipline that studies how investors make 'mental mistakes' in investment decision making process. The traditional asset pricing theories are developed under the assumption that investors are rational and thus can make right decisions, that is, investors will not hurt themselves when making decisions. But the behavioral finance theory is developed under the assumption that investors are not always rational and human behavior is irrational at some time and that the financial market is sometimes inefficient.

This assumption is much more reasonable than that of the traditional asset pricing theories. Ritter (2003) summarizes some irrational behavior of human beings, such as people tend to follow 'heuristics' or rules of thumb, which sometimes lead to biases, people are overconfident about their abilities, people act slowly to adjust to changes, people sometimes separate decisions which should be combined together in principle, and so forth. He argues that these irrational behaviors of investors will lead to misvaluation.

Another important assumption made by the behavioral finance is the limits to arbitrage. In a market where arbitrage can be carried out without limitation, mispricing of asset will be eliminated quickly. But if there are limits to arbitrage, for instance, short sale is not allowed in the financial market, the mispricing of asset may not be eliminated. Under the circumstance that the mispricing of asset is seriously, arbitrage will even choose to give up arbitrage due to the huge risk involved in the arbitrage.

This assumption implies that the market is inefficient when there are limits to arbitrage. De Long, Shleifer, Summers and Waldman (1990) maintain that in an economy where rational and irrational traders are mixed, the behavior <https://assignbuster.com/the-emh-the-financial-crisis-and-the-behavioral-finance/>

of noise traders can have huge continuous impact on asset prices, because the huge risk arbitragers confront made arbitrage less attractive. The first scholar who stresses the importance of psychological factors in investment decision making is Keynes.

Keynes argues that the 'animal spirits' of investors is the psychological foundation of irrational exuberance and crash. Kahneman and Tversky's (1973, 1979) description on the belief and preference of investors under uncertainty lays the theoretical foundation for the behavioral finance. After that, the behavioral finance develops rapidly and gradually become the most important branch of financial economics.

By economic intuition, since that the behavioral finance takes psychological factors into account when determining asset prices and that these factors do have important impact on the decision-making behaviors of investors, we can say that in the short run the behavioral finance provides a better for the behavior of investors and the financial markets than the EMH. But in the long run, investors will eventually realize and correct their irrational behavior, and the EMH will perform better than the behavioral finance. . Conclusion Under certain assumptions, the EMH maintains that asset prices reflect all the relevant information about the asset, thus it is impossible for investors to get abnormal return and beat the market. The EMH implies that there is no unexploited profitable opportunity in the financial market. Although the EMH provides a useful insight through which we look at the financial market, the EMH fails to explain the more and more anomalies in the financial market.

The EMH provides little useful explanation about the recent financial crisis.

The validity of the EMH is questioned and the confidence in the EMH  
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declines. Moreover, the EMH has even been criticized as the culprit of this financial crisis. Given the criticism the EMH suffers, scholars have developed varieties of theories so as to explain the anomalies in the financial market. Among these the most influential one is the behavioral finance.

The behavioral finance studies how the behavior of human beings affects asset prices and the financial market. Based on the assumption that investors are sometimes irrational and the market is inefficient and that there are limits to arbitrage, the behavioral finance overall gives better explanations concerning the anomalies in the financial market than the EMH. The behavioral finance is a rapidly developing field in the financial economics. Reference Ball, R. 2009) ' The global financial crisis and the efficient market hypothesis: What have we learned? ', forthcoming in Journal of Applied Corporate Finance, Electronic copy available at: <http://ssrn.com/abstract=1502815> (Accessed: 10 March 2010) De Bondt and Thaler (1985) ' Does the stock market overreact? ', Journal of Finance, Vol. 40, No. 3, pp. 793-805 De Long, Shleifer, A. , Summers, A. S. and Waldman, R. J. (1990) ' Noise trader risk in financial market', Journal of Political Economy, Vol. 98, No. 4, pp. 703-738 Fama, E.

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