Efficient Market Hypothesis: Applied In Market Bubbles And Crashes

Introduction

Efficient market hypothesis (EMH) is a critical theory for stock market as well as other asset markets. It is related to the behavior of price in the asset market based on the all available information. In this essay, the detailed explanations of EMH will be discussed by applying two historical events below named “the dotcom bubbles and crashes” and “the stock market crash of 1929”.

The dotcom bubbles and crashes

Since 1993, the Internet firstly walked into the public view and the generation of the Internet began to flourish in the next few years. The emerging industry attracted many investors due to its infinite lucrative chance. Besides, the low-interest rates period and the economy booming in 1998-1999 also resulted in substantial money flowing into the emerging market. Some dotcom companies gathered high revenue and high share price from IPO by associating with venture capitalists or analysts and some firms implemented remuneration financing to attract higher customer flow (After the gold rush 2000). Thereafter, many investors invested in the technology stock actively without actually understanding relevant financial information. Dramatically, the NASDAQ index reached the peak of 5,048 points (Richard 2010) in March 2002.

To prevent the overheated economy, the federal reserve increased interest rates six times from 1999 to 2000. Moreover, the Microsoft antitrust case and the exposure of some accounting scandals both caused the fluctuation of stocks (Jesse 2012). After disclosing scandals and some companies were failed to meet expectations, investors finally realized that many dotcom companies were overvalued since their weak economic structures, insufficient managerial experiences, or misguide of capital. Based on all factors above, investor confidence began to lose, stocks began to slump, and the dotcom bubbles finally burst.

The stock market crash of 1929

The stock market crash of 1929 was an exuberant stock market speculative bubble that crashed in 1929. After World War I, the American economy started to prosper in the 1920s. The economic boom was being spurred by emerging of new industries; new technologies such as automobile and radio; and taking off of air travel. The common stock indices Dow Jones average was to soar in the 1920s, and many people bought shares in perception that the market shares were safe investments because of a booming economy (Klein 2001). The existence of credit also supported the aggressive buying of shares in terms of the broker's loan, and many investors took these loans to buy shares. Additionally, many investors were using all their savings and mortgaging their homes to invest in hot stocks. The banks also invested the depositors’ savings into shares. However, many of the investors did not bother to examine the financial data of the companies they invested in. Moreover, due to the euphoric investment in common stocks, the Dow Jones rose from 60 to 400 between 1921 to 1929 (Klein 2001).

However, in attempt to control the overheated stock market, the Federal Reserve Bank raised the interest rates for a number of times in 1929. Consequently, in October 1929, a bearish stock market emerged where the Dow Jones fell from 400 to 145 (Klein 2001). What followed was a panic selling when investors realized that their speculative investment into stocks was an over-inflated bubble. Many investors tried to liquidate their investments but without any success. The bank also lost depositors savings. The people who were investing in using loans and mortgaging their homes could not liquidate their shares, and they were wiped out from the market. By the end of 1929, a market capitalization of about $16 billion had been lost, and many people went bankrupt. The stock market crash of 1929 reduced many millionaires to street venders, and some of the investors committed suicide (Klein 2001).

EMH explanations and applications

By comparing these two events, a number of common characteristics of “bubbles and crashes” are emerged. Initially, the rising stocks both appeared during the phase of economic growth, low interest rate period as well as the promotion of new technologies. Secondly, people had illusion of their investments. They believed that the stock price could rise consistently due to the economy booming and credit expansion. As a result, more people made investments and the market became over-heated but few of them actually know the financial information about the company they invested in. The only one difference is that the stock market crash in 1929 was due to the rising of interest by the Federal Reserve Bank and the increased productivity which leads to the people’s anxiety of unemployment so that the savings goes up whereas the reasons of dotcom bubbles in 2000 are not only caused by the central bank or unemployment anxiety but also the private information of internet companies’ weak financial or operation conditions which were unknown by investors at first .

The effective market hypothesis assumes that prices reflect all available information quickly and accurately (Burton G 2003). Effective market hypothesis covers three main points. Firstly, all economists are rational to monitor and analysis each stock in the financial market, evaluating revenue and risk cautiously. Secondly, although some investors are irrational, the irrationality can be offset by each other because of the random security trading. Thus, the stock prices are stable. Thirdly, irrational investors may make the same mistakes in some situations, but when they meet the rational arbitrageurs in the financial market, the affected prices will return to normal level.

For the first event named “the dotcom bubbles and crashes”, it describes that under the crash of Internet, many emerging industries are invested greatly because of lucrative chance and low interest rates but face challenges eventually. Considering the effective market hypothesis, the investors behave rationally. They evaluate the fundamental value that is the discounted sum of future net cash flow with risk revision and adjust their decisions constantly based on new information. Initially, the stock prices of some dotcom companies tend to increase. Then a group of traders receive this information and become excessively optimistic about dotcom companies’ future development. Under the expectation of profits, they respond immediately by purchasing securities. Lately, a new policy that the federal reserve increases interest rate is released. Besides, it is Microsoft antitrust and accounting scandals that leads to a final decrease in stock prices. In the meanwhile, these Internet companies are exposed to be overvalued by some irrational investors for weak economic structure, little managerial experience and incorrect capital utility. The changeable information is totally reflected in stock price. Therefore, it can be

seen that the hypothesis is applicable to the event of dotcom bubble.

For the second event named “the stock market crash in 1929”, it reflects the substance of the efficient market hypothesis. Peter and Eugene (1994) stated ‘the stock market crash in 1929 and 1987 are two events that make market participants feel surprised.’ The change in the stock price or the bubble burst in the future are not predictable and the stock price is in a random-walk behaviour as the average forecast error of expected interest rate is zero. Besides, since the change of monetary policy is unpredicted and the stock price is fully reflected all information after the announcement of rising interest, no one can get an abnormal return or speculating successfully by trading information or implementing market timing strategy (Burton 2003).

Conclusion

In summary, these historical events testify that the stock prices are unpredictable and would reflect all relevant information. Additionally, the result of bubble collapse also proves that normal investors cannot expect to beat the stock market and the resources they used to analyse, select or transact stocks are costly.

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