

13.11: Efficient Markets Hypothesis (CH 5)

The Efficient Markets Hypothesis (EMH) refers to the concept that all securities in a given market are accurately priced based on all currently available information and that prices will respond immediately and accurately to any new information that is released.

Forms of EMH

One of the key phrases in the above definition is “all currently available information.” There are different levels on the EMH based on what is determined to be “currently available information.”

1. Weak-form – Markets are efficient based on all past price and volume data. Trading “trends” will not allow us to spot stocks that are ready to decline or fall in the near future.
2. Semi-Strong form – Markets are efficient based on all publicly available information. Anything that we read in annual reports, the Wall Street Journal, CNBC, Yahoo!Finance, etc. is already factored into stock prices by the time we can respond. Using this information will not allow us to get a trading edge in identifying which stocks will do well and which will do poorly.
3. Strong form — Markets are efficient based on all information whether it is public or private. Even insiders in the corporation will not be able to generate above normal returns by using their inside information.

Remember that market efficiency implies that all securities are fairly valued at all times based on the available information. If I use publicly available information and consistently earn more than a fair risk-adjusted rate of return (in other words, I “outperform the market”), then I am providing evidence AGAINST semi-strong form market efficiency, not for it.

Implications (assuming EMH is true):

There is no such thing as an overvalued or undervalued stock. All stocks are always valued appropriately based on the information that is currently available. The only way to earn above average returns is to take above average risks (or to be lucky). For example, if the S&P 500 (a market index designed to capture how stocks are performing as a group) is up 5% over the past year and I have earned an 8% rate of return, this APPEARS to violate market efficiency (I have “outperformed” the market). However, I could have earned a higher return because I only invested in stocks that had higher than average risk (on average, taking higher risks should result in higher returns). Alternatively, given a relatively short time period of one year, I might just be lucky (the person that wins the Powerball jackpot isn’t “better” at picking numbers than the rest of us, just luckier).

The impact of corporate decisions should be identifiable immediately. The “market” will analyze the decision and determine the new fair value for the firm immediately and accurately. If a pharmaceutical company announces a new drug that successfully treats diabetes, we should expect the stock to increase in value immediately (within a matter of minutes) and then level off. Changes after the initial reaction (in the following days/weeks) should be based on new information, not delayed response to the diabetes drug.

Corporations can’t “trick” investors by changing accounting methods to make earnings appear higher or use flashy annual reports to make the company appear different than it really is. While corporations can use these tricks, investors in an efficient market will see through them so that these strategies will have no impact. If a firm changes its inventory accounting method and it results in an increase in earnings, this should not cause the stock to increase in value. The higher earnings don’t reflect higher cash flows, just a change in accounting methodology and the firm has not gained any real value.

Seasonal factors should have no influence on stock prices. A retail company may do really well in August due to back-to-school sales. However, since everyone knows this pattern will exist, the expectation of higher sales/earnings in August will be factored into stock prices before they are realized and the company’s stock price can only get a back-to-school bounce by doing better than expected not by doing better than they did in July. Similarly the summer should not cause the stock prices of soft drink companies to soar because people drink more pop in the summer. A tax preparation firm should not be a better investment in March/April (due to tax season) than it is in July/August. This information is already built into stock prices.

What matters for moving stock prices is not whether or not the news is good or bad, relative to a neutral baseline. Instead, the news needs to be judged relative to expectations, so that is “better than expected” news causes an increase in the stock price while “worse than expected” news causes a stock price decline. For example, if an airplane building firm announces earnings are up 20% from the previous year, we shouldn’t automatically assume the stock will go up. If earnings were expected to be up 40%, up 20% is bad news and the stock will likely decline. If earnings were expected to be up 10%, up 20% is good news and the stock will likely increase.

Are Markets Efficient?

This is open for debate, but the debate is based more on the degree of market efficiency rather than a yes/no answer. Most experts will agree that the market is not perfectly efficient. However, some feel that there are very few real examples of market inefficiencies to be found while others feel that there are several situations where stock prices do not fully reflect all currently available information which leads to overvalued stocks and undervalued stocks. After looking at lots of evidence on the subject, we feel that while market inefficiencies exist, they are not easily found. Most of us would be better off trying to own well-diversified portfolios (not just a variety of stocks, but a portfolio of stocks, bonds, and other assets with a global mix) that match our risk-return preferences, re-allocating annually (shifting towards stocks to increase risk or towards bonds to lower risk) to maintain or adjust those risk-return preferences and minimizing our transactions costs rather than spending lots of time and effort to choose the “correct” stocks. Studies show that, on average, most people do not add value by selecting good stocks and avoiding bad ones (unless they have access to private information). More importantly, market timing (trying to move out of stocks as a whole when they are “overpriced” and move into them when they are “underpriced”) results in investors earning lower returns over time.

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