FINA 1082 –Financial Management
Capital Market Efficiency
Tutorial Solutions for Lecture 8

Note that detailed answers to tutorial questions will only be provided in tutorials. The following abridged answers are intended as a guide to these detailed answers. This policy is in place to ensure that you attend your tutorial regularly and receive timely feedback from your tutor. If you are unsure of your answers you should check with your tutor, a pit stop tutor or the lecturer.

A. Multiple Choice Questions

A1. See your lecture notes.

A2. D is correct. This information is already anticipated by the market.

A3.

Choice "d" is correct. The semi-strong form of the EMH states that all prices and fundamental information (such as financial ratios) are already reflected in stock prices. Thus, an examination of past price (technical) data and/or past fundamental data will be of no use in gauging the future performance of a security's price or risk-adjusted return. If true, John Smith's statement would violate the semi-strong form of efficient market hypothesis. Note: John Smith's statement also violates the strong form of the efficient market hypothesis, which states that all relevant information about a company (technical and fundamental, whether public or private), as well as any implications that can be drawn from them are already embedded in the prices of securities.

Choice "a" is incorrect. The weak form of efficient markets hypothesis states that all past price and trading information is priced into securities. Consequently, technical analysis cannot be used to produce superior investment returns. John Smith's statement is based on fundamental analysis, not technical analysis.

Choice "b" is incorrect. The semi-strong form of the efficient market hypothesis states that the market reacts quickly to new information and the market is really priced for all existing information, whether technical or fundamental in nature. Thus, neither technical nor fundamental analysis can be used to produce superior risk-adjusted returns. John Smith's statement does not confirm this idea; rather, it contradicts it.

Choice "c" is incorrect. The weak form of the efficient market hypothesis states that superior risk-adjusted return cannot be obtained using past price and volume data (technical analysis). John Smith's statement is based on using fundamental, rather than technical analysis to select stocks that are likely to produce superior risk-adjusted returns.

A4.

Choice "d" is correct. The semi-strong form of the EMH suggests that all publicly available information is already incorporated into the market prices. Therefore, technical and fundamental analyses are both likely to be ineffective in finding stocks that will generate superior risk-adjusted returns.

Choice "a", "b" and "c" are incorrect. The semi-strong form of the EMH suggests that both technical and fundamental analyses are likely to be ineffective in finding stocks that will produce superior risk-adjusted returns.

A5.

Choice "b" is correct. The semi-strong form of the efficient market hypothesis suggests public information is reflected quickly in stock prices. A significant relayed reaction in Microsoft's stock price suggests violation of the semi-strong form of efficient market hypothesis. In addition to violating the semi-strong form, the strong form of the efficient market hypothesis is violated. Under the strong form, all public and private information is known and embedded in the stock price.

Choice "a" is incorrect. The weak form is based on historical price and trading behavior of the underlying stock. It does not address firm fundamentals and how information affects stock price. Thus, the weak form is not violated in this case.

Choice "c" is incorrect. There is no such theory as the robust form of the efficient market hypothesis.

Choice "d" is incorrect. There is no such theory as the semi-weak form of the efficient market hypothesis.

A6.

Choice "c" is correct. Ms. Smith's friend acted on private information that is not available to other investors. The fact that the friend made money is a violation of strong form of the efficient market hypothesis. The strong form argues that both public and private information are known and are reflected in the security's price. Thus, if the strong form holds the friend should not have been able to make money.

Choice "a" is incorrect. The weak form is based on historical price and trading behavior of the underlying stock. It does not address public or private information.

Choice "b" is incorrect. The semi-strong form addresses publicly available information, but the information was private. Thus, the friend's profits do not violate the semi-strong form of the efficient market hypothesis.

Choice "d" is incorrect. There is no such theory as the semi-weak from of the efficient market hypothesis.

A7.

Choice "b" is correct. The semi-strong form of the EMH suggests that past price and volume trading patterns and past fundamental pattern cannot be used to produce above-average risk-adjusted returns.

Choice "a" is incorrect. If a market is strong-form efficient, then no one can benefit from any existing information, which includes a tip from a CEO about upcoming surprises (presumably the CEO would have bought ahead of the broker, exploiting the information for himself).

Choice "c" is incorrect. The strong form of the EMH states that all relevant information about a company, whether publicly or privately held, is embedded in the price of securities. This includes technical (price and volume) data, fundamental data, and implications that can be drawn from all available information, whether publicly disclosed or not. The weak form of the EMH indicates that technical (price and volume) data cannot be used to generate superior returns. Thus, the strong form of the EMH incorporates weak-form efficiency as well as other forms of efficiency. Therefore, the strong form of the EMH is more inclusive than the weak form.

Choice "d" is incorrect. If the capital markets are perfectly efficient, it is not useful to draw a distinction between security values and security prices in order to attempt to buy undervalued securities and sell overvalued ones because everything that contributes to value (technical analysis, fundamental analysis, and private information) is already embedded in the securities' pricing structure.

A8.

Choice "a" is correct. Using price trends to predict future price action is a violation of the weak form of the EMH, which states that security prices reflect all information about price and trading behavior in the market. Since her strategy of using price trends is not successful, then the weak form is not violated.

Choice "b" is not correct. The semi-strong form of the efficient market hypothesis suggests public information is reflected quickly in stock prices. Her strategy only relies on stock price trends, not fundamental information. Thus, her lack of success does not determine whether the semi-strong form is validated.

Choice "c" is incorrect. According to the strong form of the Efficient market Hypothesis (EMH). All relevant information, whether public or private, is embedded quickly into the prices of securities. Her strategy only relies on stock price trends and the alck of its success does not determine whether the strong form is validated.

Choice "d" is incorrect. There is no such thing as a "comprehensive" form of the EMH.

A9.

Choice "a" is correct. Under the semi-strong form of the efficient market hypothesis, the information from the Financial Times should be quickly reflected in Exxon Mobil's stock price. Thus, the ability to make money on this information three days later is a violation of the semi-strong form.

Choice "b" is incorrect. There is no such theory as the fragile form of the efficient market hypothesis.

Choice "c" is incorrect. Weak form efficiency says technical analysis does not work. But fundamental information, such as an earnings release, is not quickly embedded in the share price.

Choice "d" is incorrect. Insider trading occurs while in possession of material (non-public) information. There is no private information in this question. In addition, insider trading is not a form of market efficiency.

A10.

Choice "c" is correct. The sister acted on and benefited from private information that was not available to other investors. Her being able to profit from such private information is a violation of strong form of the efficient market hypothesis, which states that all information that is available, whether public or private, should already be embedded in the security's price.

Choice "a" is incorrect. The weak form of the EMH states that historical pricing and volume data of the underlying stock is already embedded in its price. The weak form of the EMH does not address public or private fundamental information, such as a new contract.

Choice "b" is incorrect. The semi-strong form of the efficient market hypothesis states that the market reacts quickly to new public information. It does not address the issue of private information.

Choice "d" is incorrect. The sister acted on private information and benefited from it. However, this is a violation of the strong form of the EMH. There is no such thing as the "private information" form of the EMH.

A11.
Choice "a" is correct. In a efficient market, the price of GPR's stock will change quickly to reflect new expectations about the firm.

Choice "b" is incorrect. If it takes days for investors to assimilate all new information, then the market is not efficient.

Choice "c" is incorrect. An efficient market reacts appropriately to any new information, with no increase above fair value and subsequent decline.

Choice "d" is incorrect. In an efficient market, information drives stock prices. Thus, this new information will cause a change in the price of GPR's shares.