PROBLEM SET: Efficiency

Exercise 1.

An investor who picks a portfolio by throwing darts at the financial pages:

(a) Believes that efficient markets will protect the portfolio from harm as all information is priced.

(b) Believes that riskier portfolios earn the same as less risky portfolios.

(c) Does so because stock prices do not matter; only cash flow generated matters.

(d) Believes strongly that the market is not weak-form efficient.

(e) I choose not to answer.

Exercise 2.

That stocks with higher betas are expected to have higher returns is a claim of the

(a) efficient market hypothesis.

(b) random walk theory.

(c) CAPM.

(d) arbitrage pricing model.

(e) I choose not to answer.

Exercise 3.

Semistrong [3]

Can you expect to earn excess returns if you make trades based on your broker's information about record earnings for a stock, rumors about a merger of a firm, or yesterday's announcement of a successful test of a new product, if the market is semi-strong form efficient?

Exercise 4.

UPS [3]

On 1/10/85, the following announcement was made: "Early today the Justice Department reached a decision in the UPC case. UPC has been found guilty of discriminatory practices in hiring. For the next five years, UPC must pay $2 million each year to a fund representing victims of UPC policies." Should investors not buy UPC stock after the announcement because the litigation will cause an abnormally low rate of return over the next five years?

Exercise 5.

Interest Rates [2]

Consider the following statement.

> *Long term interest rates are at record highs. Most companies therefore find it cheaper to finance with common stock or relatively inexpensive short-term bank loans.*

What does the Efficient Market Hypothesis have to say about the correctness of this?

Exercise 6.

Market efficiency. [3]

Which of the following statements are true about the efficient-market hypothesis?

1. It implies perfect forecasting ability.

2. It implies that prices reflect all available information.

3. It implies an irrational market.

4. It implies that prices do not fluctuate.

5. It results from keen competition among investors.

Solutions

PROBLEM SET: Efficiency

Solution to Exercise 1.

(a)

Solution to Exercise 2.

CAPM: expected return linear function of beta

(c) is correct.

Solution to Exercise 3.

Semistrong [3]

All of these are public information, you do not expect them to explain *future* changes in stock price. Hence, can not expect to make excess returns using this information. You can only use private information to generate excess returns.

Solution to Exercise 4.

UPS [3]

Once the announcement is made and the price has reacted (downward) to the lower (discounted) future dividend stream, there is no further effect. The average return over the next five years will still be determined solely by risk and not by the fact that dividends will be $2 million lower. For instance, if risk continues to be high, average returns will also be.

Solution to Exercise 5.

Interest Rates [2]

Remember the first lesson about market efficiency: Markets have no memory. Just because long-term interest rates are high relative to past levels does not mean that they won't go higher still. Unless you have special information indicating that long-term rates are *too* high, issuing long-term bonds should be a zero-NPV transaction. So should issuing short-term debt or common stock.

Solution to Exercise 6.

Market efficiency. [3]

2 and 5 are true statements.