## Here's Your Chance to Make Millions in The Stock Market



# **Market Efficiency and Market Timing**

Name:	Date:	
<b>Directions:</b> Read the following stories.		

#### A MARKET EFFICIENCY STORY

An elderly economics professor was walking down a busy street with one of his energetic students to the local café for lunch. Along the way, as he was explaining the concept of market efficiency to his student, the professor stepped right on a wadded up \$20 bill and continued to stroll on. The student, who was looking down in studious thought at the time, was amazed at his good fortune and stooped down to pick it up. As the student rushed to catch up with the professor, he asked the professor whether he had seen the \$20 bill. The professor quipped "My dear lad, haven't you been listening to anything I have been saying about efficient markets? Although I saw the \$20, I knew my eyes must have been deceiving me. Efficient markets theory dictates that it couldn't possibly be there because if it had been, someone else would have already picked it up.

The story above is an old joke among economists. It highlights both the conclusions and possible folly of assuming the extreme case of efficient market theory. Most scholars believe (in one form or another) in efficient markets. Although there are several forms of what is referred to as the "Efficient Market Hypothesis," its basic premise is that all stock prices accurately reflect all historical and current information. This means that whenever you purchase a stock, you are getting the best price based on available information. If the stock you chose was truly undervalued, investors would have already been buying the stock and thus pushing the stock price up until it was considered accurately valued. The opposite occurs for overpriced stocks.

In essence, the theory states that there are no \$20 bills, or even \$1 bills just lying around for you to pick up. When was the last time you found a \$1 bill lying around? This is market efficiency at work. In support of this theory, many studies have shown that picking stocks by throwing darts at the stock table is just as likely to earn you profits as listening to the "market experts." In fact, the Wall Street Journal used to publish an ongoing feature that pits investment professionals' stock picks against stocks picked at random by throwing darts at a stock quotations page.



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### **MARKET TIMING**

Correctly determining whether the entire market is going to rise or fall is also not possible, according to market efficiency theory. Ask the students "Why not?" Give them time to hypothesize as a class. Then, tell the students to consider what might happen if everyone thought the market was going to decline over the next day or throughout the next month. In that case, investors would sell their stocks and push the market lower immediately until everyone thought that stocks were accurately priced.

If everyone thought the stock market was going to rise over the next day or month, investors would buy up stocks, pushing market prices higher immediately, until once again everyone thought stocks were accurately priced—or at least until half the investors thought prices were going up and the other half thought they were going down. Consider this simple truism: for every share of stock sold, someone must have bought it; and for every share of stock purchased, someone must have sold it. Prices fluctuate when there are no buyers and sellers at the current price quotes.

So why are there still those who believe they can pick undervalued stocks or time the market accurately? As you may have gleaned from the story at the beginning, someone must reach down to pick up the \$20. Many people think they are the ones who see the \$20 first, so to speak. Depending on how you view that possibility, you can be a proponent of market efficiency theory or a detractor of it. If you are a proponent, you will probably favor a "buy and hold" investment strategy—acquiring a diversified stock portfolio and holding it long enough to benefit from its growth in value over time, regardless of short-term price fluctuations. Detractors, on the other hand, believe they can identify individual stocks that are undervalued, or identify times when the market in general is under- or overvalued. Although most investors and professionals believe in market efficiency, the economic incentive for correctly timing the market can be gargantuan—making market timing a tempting proposition.

Consider the following: by using a simple buy and hold strategy, if you had invested \$100 in a diversified portfolio or mutual fund in 1960, by December of 2000 it would have been worth \$8,477—for an average annual return of 11.17 percent per year. However, if you could have had the foresight needed to pull your money out of the stock market during the months when it would lose value, and to put it back in when the market was set to rise, your \$100 would now be worth \$1,126,878—for an average annual return of 26.26 percent! Now you can see part of the reason why market timers still try to time the market. On the other hand, if you had missed only the top 10 percent of monthly returns—i.e., only four years' worth of monthly returns out of 40 years over this time period—your \$100 would be worth only \$215—an average annual return of 1.9 percent. Now you see why the buy and hold proponents assert that more fortunes have been lost than gained by investors trying to correctly predict the market.

