

Chapter Six: *The Loophole (Where to Look)*

by Nathan Polackwich

Many, if not most, academics hypothesize that the stock market is “efficient.” In other words, they believe that stock prices reflect all available information concerning their prospects for future growth, and therefore that it is impossible to find undervalued stocks and *systematically* beat the stock market averages. This may surprise you but I think the academics are right. However, the validity of the Efficient Market Hypothesis, or EMH, does not imply that players of the Winner’s Game – including adherents of the intellectual path – are doomed to failure.

The EMH does not deny that undervalued stocks exist. With hindsight it’s now clear, for instance, that Coca Cola was undervalued in 1980, as was Microsoft in 1990. The problem, the EMH suggests, is that the extent of each company’s success was unpredictable given what was known at the time. Thus, the EMH attributes successful stock pickers’ results to randomness or luck. If five thousand people flip a coin ten times, five of those can be expected to toss heads ten times in a row because of chance alone. Similarly, within a group of thousands of investors, the odds suggest a “lucky” few will do much better than average.

What makes the stock market so smart? Contrary to what you might expect, it’s not mainly a product of the smartest investors with the most powerful computers working feverishly to profit from mis-priced stocks (though that doesn’t hurt). Rather, *all* investors contribute to the market’s intelligence, an idea I first came across in a speech by renowned¹ investor Bill Miller. In the speech, Miller revealed the results of an experiment where each person in the audience tried to guess the number of jellybeans in a jar. The jar had 2,683 jellybeans. The average of the audience’s guesses was 2,566, which only seven people, or two percent of the crowd, managed to beat.

How did the crowd come so close to guessing the number of jellybeans in the jar? It turns out that a group can be remarkably intelligent as long as it is sufficiently large and diverse enough that a wide variety of independent, though not necessarily intelligent, perspectives are brought to bear on the problem. In effect, each individual’s perspective consists of information and error. Find the average of a large enough group of perspectives, and the errors tend to cancel out, leaving mostly information. The size of each individual error, or level of unintelligence, fades in importance assuming that *some*² information exists.

Aside from jellybean guessing contests, the “wisdom of crowds”³ affects many areas of life from sports betting odds to Google’s search engine⁴ to the online encyclopedia, Wikipedia. And its effect on the stock market explains why proponents of the EMH stand on solid ground.

¹ Renowned but now suspect because of his unremittingly poor performance in recent years.

² My son’s preschool class has *no* information concerning the fair value of General Electric’s stock, for example, and so would be unlikely to come up with a “wise” price.

³ “The Wisdom of Crowds” is the title of a book on the topic by James Surowiecki

⁴ Google ranks search results by those with the most links from other web pages associated with the terms of the search. Thus, Google taps the collective wisdom of the crowd because, presumably, the most linked-to websites on a certain topic are the ones most likely to have the information you were searching for.

A classic example of the crowd's wisdom in the stock market was the reaction to the crash of the Space Shuttle *Challenger* in 1986. As Michael Maloney and Harold Mulherin detailed in a 1998 study, within minutes of the explosion the stock prices of the *Challenger's* four major contractors – Rockwell International, Lockheed, Martin Marietta, and Morton Thiokol – began to fall. But Morton Thiokol's stock fell the most, and by the end of the trading day it had dropped 12%. Meanwhile, the other contractors' stocks recouped most of their earlier losses and ended the day with more modest 2-3% declines.

Why is this so incredible? Well, at the time of the crash no one had any idea what had gone wrong. It took four months of research by engineering experts and scientists to determine that weak seals on the shuttle's booster rockets – seals made by Morton Thiokol – had caused the crash. Yet the stock market took under an hour to finger the Company as the responsible party. Some suggested the stock price decline may have been the result of selling by Morton Thiokol insiders, perhaps suspecting their company was at fault. But the company's employees had no major stock sales the day of the crash. Even more amazingly, with the 12% decline in the stock that day, \$200 million in Morton Thiokol's market value evaporated. Based on a rough estimate by Maloney and Mulherin, that's about what the accident ultimately cost the company in legal settlements, repair work, and lost contracts.

The depth of the stock market's wisdom in reaction to the *Challenger* disaster shows quite clearly that the enormous and highly diverse group of minds operating in the stock market collectively contains a very large amount of information. Thus, with the possible exception of small, under-the-radar companies lacking a large following of investors, we're unlikely to ever (legally) have more information than the stock market.⁵

But while the EMH may appear airtight, it has a loophole that Richard Roll, a finance professor and leading EMH proponent, inadvertently revealed in a Wall Street Journal op-ed piece. "I have personally tried to invest money, my client's and my own, in every single anomaly and predictive result that academics have dreamed up. And I have yet to make a nickel on any of these supposed market inefficiencies. An inefficiency ought to be an exploitable opportunity. *If there's nothing investors can exploit in a systematic way, time in and time out, then it's very hard to say that information is not being properly incorporated into stock prices [italics mind].*"

As Bill Miller pointed out concerning Roll's argument,

The key here is "systematic". Many academic papers find these approaches that they claim would have produced excess profits had you followed them sometime in the past. As Roll says, when you try to put these things into practice, it never works. The market is always smarter than these particular strategies.

⁵ Some commentators have suggested that the Democrats' capture of the Senate in 2006, when betting markets only gave them about a 30% chance, may disprove the notion that crowds are wise. It doesn't. The crowd cannot predict the future. It just consistently calculates more accurate odds than most individuals. Low probability events will still occur, but that doesn't mean the market's calculation of the odds was necessarily wrong. A crowd betting on whether a die will roll three would lay odds of 1/6 or 16.67%. Does a roll of three disprove the crowd's wisdom? No. 83.33% odds of not rolling a three doesn't mean a three will *never* be rolled.

But while there may be no systematic way to generate above-average investment returns, there are *unsystematic* opportunities. This is the loophole in the EMH. Namely, what's exploitable in the stock market is always changing. Thus, the Winner's Game demands a high degree of mental flexibility. That's why, in the stock market anyway, pedagogues don't last very long.