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## **The Stock Doesn't Know You Own It -- Neither Does Monty Hall**

As a result of technology and the Internet, we are in a new era, experiencing a new economy, and pursuing a new paradigm. Unfortunately, we are all the same old people. And the same old people have an annoying tendency to make the same old mistakes. This somewhat cranky thought occurred to us as we were developing a method of quantifying the portfolio risks of a concentrated position in one stock.

The incidence of investors holding a concentrated position in a stock has risen dramatically in the bull market. Companies are sold and employee/shareholders receive a block of the new company's stock. Employees exercise options that have accumulated over the years. People inherit stock that has risen dramatically since the date of death. The calculation of the relative advantages of holding the stock versus selling, paying the taxes and diversifying is a complex but relatively straightforward quantitative problem. In the real world, however, the decision opens up a Pandora's box of psychological difficulties.

***"Unawareness is certain to be ignorance, probably compounded by arrogance." -- National Council on Higher Education***

If you own a stock, you are aware of two prices -- the purchase price and the recent high. These are magic numbers to the stockholder. You may be unaware, however, of the irrational power of these numbers in your behavior. It may sound ridiculous to have to remind anyone that the stock doesn't know you own it. In practice, though, people behave as if the stock not only knows they own it, it even knows at what price they bought it.

For example, let's assume (for psychological reasons to be discussed below) that we consciously or unconsciously don't want to sell the stock. If the stock price is below the purchase price, the stock cannot be sold until it goes up so we "break even." If the stock is above the purchase price but below the recent high, it cannot be sold until it goes back to the recent high or we are "leaving money on the table." If the stock is at a high, we can't sell it because, after all, it's "on a roll."

The problem of a concentrated holding resulting in a lack of diversification is not only quantitative, it's emotional. A major factor is the fear of future regret. Investment theory informs us that, taxes aside, it is always better to have a diversified portfolio than one concentrated holding with substantial specific company risk. In practice, however, investors find it hard to diversify even in nontaxable accounts. To illustrate the power of potential regret, consider the behavior of contestants on the game show "Let's Make a Deal." In our

version, Carol Merrill is standing next to three doors. Behind one is a trip to Hawaii, while the other two doors have donkeys behind them. Monty Hall has you choose a door -- you pick door number one. He opens door number three to reveal a donkey and offers you the opportunity to switch from door one to door two. Should you switch?

Almost nobody switched on the show, but they should have. When you chose door number one, your odds of not getting the trip were two out of three. Just because Monty opened a door that he knew would reveal a donkey doesn't change those odds. You are twice as likely to get the trip by switching.

Having told this story before, we know many of you disbelieve us at this point. Consider a new game where there are 100 doors, 99 with donkeys and 1 with the trip. You choose door 46. Monty opens up 98 doors with donkeys, leaving only door 57. Do you still believe your odds are 50-50? Remember, Monty knows where the donkeys are, and you don't. He's not just opening random doors. He never opens up the Hawaii door and says, "whoops, I guess you got a donkey." Even assuming contestants incorrectly assessed the odds as 50-50, however, they didn't switch anywhere near 50 percent of the time because they were driven by fear of potential regret. They couldn't stand the thought that they had "owned" the trip and then traded it away. This helps explain why you are afraid to get rid of that junk in your attic in a garage sale, suspecting some great hidden value.

***"Education is what survives when what has been learned has been forgotten." -- B.F. Skinner***

Holders of a concentrated position of stock can't stand the thought that they might own a future Cisco or Oracle and be doing the equivalent of putting a shirt in the washer with a winning lottery ticket in the pocket. This sense of potential regret can easily overwhelm any calculation of the more likely possibility that the stock will be nothing special, and may even be a colossal dud. IBM was the ultimate "religion" stock of the late 1960's and early 1970's, when everyone knew that anyone who had ever sold IBM was sorry. IBM has performed substantially worse than the market ever since. Polaroid was one of the "nifty fifty" stocks of the same period, but a purchaser at the high in 1972 is still waiting for that magic "break even" price. Owners of personal computer stocks in the tech boom of 1983 believed computers would change the world. They were right, but we hope they took up Monty on his offer to switch out of such then-popular stocks as Kaypro, Commodore or Eagle Computer.

Part of our job is to help clients overcome fear of regret and other difficult emotions with a rational approach. As noted above, we have recently developed a means of analyzing the downside risk of holding a concentrated stock position versus selling the stock, paying the capital gains tax and moving to a diversified portfolio. If you know someone facing this problem (and we should all be so lucky), have them contact us.