



# CAPITAL IDEAS

*September 2003*

## Seasonal Trading Strategies: A Fair Weather Friend?

The hypothesis that seasonal trading strategies can produce superior profits without increasing risk has existed since the mid-1970 discovery of the "January Effect" (described below). If indeed some seasonal strategies have produced superior risk-adjusted returns after accounting for investment costs in the past, we would expect that they would eventually cease to be profitable. This is the nature of an efficient securities market. Arbitrageurs exploit price inefficiencies, which leads to the eventual elimination of the anomaly. We will examine two popular seasonal trading strategies:

- **"The January Effect"** - Taking advantage of an observation that there are excess returns to stocks in the month of January.
- **"Sell in May and Go Away"** - The strategy of selling equities at the end of May, investing in risk-free Treasury bills from June through October, and reinvesting in equities in November.

### **The January Effect**

The January Effect describes the tendency for stocks to exhibit abnormal positive performance in January relative to the other eleven months. It was first documented in academic financial literature in 1976. Several hypotheses were presented to explain the effect, ranging from possible seasonality in equity risk premiums to year-end tax loss sales resulting in under valuation of the US equity markets at the end of most years.

Recent literature on the January Effect suggests that it has declined significantly over time. A January 2001 study on this seasonal anomaly grouped stocks into ten deciles by market capitalization (with the first decile being the largest companies and the tenth decile being the smallest) and examined the statistical significance of the January Effect over three different time periods (January 1926-December 1976, January 1977-June 2000, and February 1993-March 1997).<sup>1</sup> The study concluded that the January Effect was statistically significant for deciles four through ten for the earliest period (January 1926-December 1976) but significant for only deciles nine and ten for the most recent period (January 1977-June 2000). These results are exactly what we who believe in the Efficient Markets Hypothesis (EMH) would expect to occur.

165 LENNON LANE, SUITE 200 • WALNUT CREEK, CALIFORNIA 94598

925.939.2500 • 800.877.0564 • FAX 925.945.8371

*a financial services company*

Further, after incorporating the costs of trading small-cap and micro-cap stocks, the January Effect might not have been *economically* significant even in deciles nine and ten. For it to be a useful anomaly, investors must be capable of exploiting it *after* the costs involved in the effort.

Another recent study by Anthony Gu found similar results.<sup>2</sup> Gu found that the January effect appeared to be on a downward trend for both large and small-cap stocks since 1988. (Surprisingly, Gu found that the January Effect was independent of company size, contradicting most prior literature.) He also found that excluding what were known as "outlier" returns in 1975, 1976 and 1987, caused the S&P 500 January Effect to disappear in the post-War period 1950-1987. Gu concluded, "The declining January Effect may represent a trend toward market efficiency. More experienced and knowledgeable investors, and advances in information technology should make the market more efficient". Again, his conclusion makes sense within an efficient market. Once an anomaly's existence becomes highly publicized, it is more likely to be exploited and therefore disappear.

### **Sell in May and Go Away**

This second seasonal strategy involves movement in and out of the equity market (with "the market" defined as the S&P 500 Index) based simply on the months of the year. The investor who follows this strategy is in the market from November through May and out of the market from June through October. During the period that the investor is out of the market, he/she is invested in risk-free Treasury bills. Supporters of this seasonal strategy have cited its superior returns compared to a buy-and-hold S&P 500 strategy during the latter half of the 20<sup>th</sup> century.

An article in the *Journal of Financial Planning* examined the validity of this strategy over the longer period of January 1926-March 2003.<sup>3</sup> It found that a market buy-and-hold strategy significantly outperformed the seasonal strategy during this time period. (\$1 invested in the buy-and-hold strategy grew to \$1,719.15 versus just \$530.10 for the seasonal strategy.) So, the strategy appears to be an "artifact" of a specific period of time. This is otherwise known as data mining.

The study also examined the performance of the strategy during the period cited by most of those who espoused it. The study found that the strategy's out performance from January 1950-March 2003 was almost entirely explained by just three years: 2002, 2001 and the market crash in October 1987 (when the S&P 500 dropped 22 percent). It is hard to place faith in a strategy that did not work at all once the data was extended back to 1926, and that worked in the more recent period due only to the three years referenced.

### **Summary**

With the availability of high-powered computers and the potential for huge profits, it is quite possible that new anomalies will continue to be discovered. The problem is, by the time the general public learns about an anomaly, it is highly likely in our efficient markets that it will be too late to do anything about it.

Economics professors Dwight Lee and James Verbrugge of the University of Georgia, writing in the *Journal of Applied Corporate Finance*, explained the power of the efficient markets theory in the following manner:<sup>4</sup>

The efficient markets theory is practically alone among theories in that it becomes more powerful when people discover serious inconsistencies between it and the real world. If a clear efficient market anomaly is discovered, the behavior (or lack of behavior) that gives rise to it will tend to be eliminated by competition among investors for higher returns ... (For example) If stock prices are found to follow predictable seasonal patterns ... this knowledge will elicit responses that have the effect of eliminating the very patterns that they were designed to exploit ... The implication is striking. The more empirical flaws that are discovered in the efficient markets theory the more robust the theory becomes. (In effect) Those who do the most to ensure that the efficient market theory remains fundamental to our understanding of financial economics are not its intellectual defenders, but those mounting the most serious empirical assault against it.

As much as investors would like to find profitable investment strategies that produce higher returns with lower risk, we are aware of only one that truly exists in an exploitable form for any significant period of time: diversification. Investors are wise to be skeptical of any other strategy that purports to outperform the market with less risk. In most cases, these strategies either do not hold up under intense scrutiny, or they disappear once they are well publicized.

<sup>1</sup> Mark Riepe, **The January Effect: Not Yet Dead, But Not at All Well.** *Journal of Financial Planning*, January 2001.

<sup>2</sup> Anthony Gu, **The Declining January Effect: Evidences from the U.S. Equity Markets.** *The Quarterly Review of Economics & Finance*, Summer 2003.

<sup>3</sup> Mark Riepe, **Sell in May and Go Away? Not So Fast.** *Journal of Financial Planning*, July 2003.

<sup>4</sup> Dwight Lee and James Verbrugge, **The Efficient Market Theory Thrives on Criticism.** *Journal of Applied Corporate Finance*, Spring 1996.

---

*This material is derived from sources believed to be reliable, but its accuracy and the opinions based thereon are not guaranteed. The content of this publication is for general information only and are not intended to serve as specific financial, accounting or tax advice. To be distributed only by a registered investment advisor. Copyright © BAM Advisor Services, 2003 & Capital Performance Advisors, LLC.*