

# **THE ABNORMAL RETURNS AND STOCK PRICE REACTION TO BARRON'S BUY/SELL RECOMMENDATIONS**

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## **ABSTRACT**

This paper assesses the buy and sell stock recommendations appearing in Barron's. Company recommendations from the Picks and Pans section, where writers from Barron's editorial staff recommend stocks to buy and sell, are analyzed. Abnormal return performance is assessed six days prior to six days after the Barron's Picks and Pans publication date using Jensen's Performance Index model. The results show statistically significant stock price effects on the publication date for both buy and sell recommendations. The empirical results also show that the stock price for stocks with sell recommendations is essentially reversed within six trading days of the publication date, whereas the stock price for stocks with buy recommendations appears to have increased over six trading days after the publication date.

## **INTRODUCTION**

*Barron's* is an American newspaper founded in 1921 that covers U.S. market developments and financial information. It is one of America's leading financial magazines, known for its market-moving stories including its sometimes harsh assessment of corporations and exploratory reporting on overvalued companies and stock fraud. The newspaper has been published by Dow Jones & Company since its founding, and reaches an influential and diverse audience of institutional investors, executive corporate officers, financial professionals and affluent individual investors. The magazine is named after Clarence W. Barron, one of the most prominent figures in Dow Jones history, and considered by many to be the founder of modern financial journalism. With original content available every business day online and every week in print, Barron's provides readers with a comprehensive review of the market's current and future financial outlook. Barron's helps readers to "See What Others Don't" in the market, providing investors with an accurate summary of what happened in the market recently together with insights into what is likely to happen in the market in the future. This shrewd advice is available to investors at a minimal cost and reflects the combined wisdom of an extensive cross section of portfolio managers and security analysts.

Economics teaches that markets with buyers and sellers who may enter and exit freely will be competitive. Financial markets also tend to be efficient, indicating that a security's current price represents all the known information concerning the potential return and risk associated with the asset. If an asset, such as a stock, were undervalued and offered an excessive return, investors would seek to buy it. This would drive the price up and reduce the return that subsequent investors would earn. Conversely, if the asset were overvalued and offered an inferior return, investors would seek to sell it. This would drive down its price and increase the return to subsequent investors. The fact that there is an ample number of informed investors means that a security's price will reflect the investment community's agreement regarding the asset's true value and that the expected return will align with the amount of risk the investor must bear to earn the return. Similarly, efficient markets suggest that investors (or at least

the vast majority of investors) cannot expect on average to beat the market consistently and earn abnormally large returns. And, investors should also not expect to consistently underperform the market and earn abnormally small returns.

With that said, the purpose of this paper is to assess the impact of Barron's on the stock market. If efficient market theory holds and investors deem Barron's recommendations valuable, the stock market would expect to fluctuate based on this published information. New information related to current and future company health, as well as changing macro-economic factors, influences a company's stock price. If new information comes from a reputable and trusted financial source like Barron's, and this information reaches a vast audience, it is probable that this information will make an impact. The hypothesis is that Barron's Picks and Pans will have an influence on the company stock price. The economic value of professional investment advice and portfolio management like this is of interest. This paper investigates whether investors react in a timely fashion to the appearance of Barron's recommendations. Barron's continues to be a source of study because of the sheer size of its customer base as well as its historical influence. Analysis of a sample of companies recommended by Barron's Picks and Pans provides a unique and easily accessible sample of data from a reputable source.

## **Previous Studies**

Previous studies have focused on specific features within Barron's and other prestigious investment firms. Bjerring, Lakonishok and Vermaelen found that the recommendation of a Canadian brokerage house, which included both Canadian and U.S. stocks, contained valuable information that was reflected in market prices gradually through time. Groth, Lewellen, Schlarbaum and Lease reported similar findings for the recommendations provided by a U.S. brokerage firm. Other studies found that online-resource Value Line was capable of predicting short-term investment performance with some degree of accuracy. However, there was disagreement concerning the speed at which prices adjust and therefore whether investors can profit from this information. In addition, Liu, Smith and Syed and Lloyd-Davies and Canes found abnormal returns on the publication date of analysts' recommendations in the Wall Street Journal 'Heard on the Street' column. Barber and Loeffler reported abnormal returns for stocks recommended by investment analysts in the Wall Street Journal 'Dartboard' column. They attributed these abnormal returns to both the information content of the analysts' recommendations and naïve buying pressure. Beneish, however, argued that the publication of analysts' information constitutes a primary dissemination. He stated that, to establish their status, analysts have an incentive to expose information through the media before revealing it to their clients.

Furthermore, Dopuch, Holthausen, and Leftwich found a significantly negative stock price reaction to media disclosures of qualified audit opinions, even when the media coverage was not the first public disclosure of the event. Similarly, Stice reported a market reaction to Wall Street Journal earnings announcements, but not to the preceding filings of 10-Q and 10-K reports with the Securities and Exchange Commission (SEC). He also found no evidence of stock price reaction for the 8-day period between the SEC filing date and the Wall Street Journal publication date. According to these studies, a price response may be observed at the time of publication if the publication constitutes a wider dissemination of the news. A further implication is that many investors are not sophisticated enough to collect data about recommendations before the news coverage, partly because searching for the information is a costly process. As a result, information on security recommendations by investment firms is distributed relatively slowly, until the media provides more extensive coverage.

Additionally, from 1970 to 1987, the impact of Barron's cover stories on stock returns generally reverberated for a week; from 1988 to 2005, the effects of these articles were confined for the most part to the first day of trading. In other words, today's more modern market is now able to fully integrate the information within the first trading day. However, there is some evidence that the stock return relative to a negative story persists beyond the first day of trading. That implies that the market has become increasingly optimistic, incorporating positive information faster than negative information. This 36-year study of Barron's cover articles not only acknowledged shifts in the duration of the effect of Barron's cover stories on stock prices, but it tracked the degree to which positive, negative, or neutral coverage of a given company affected trading of that company's stock.

Banesh and Clark found that a stock recommendation from the Mutual Choice column in Barron's resulted in a statistically significant market reaction on the date of the publication. Similarly, Han and Suk showed significant stock price effects on both the date the research report was issued and the date the report was later covered in the Barron's Research Reports column. Their results suggest that the market reaction to the coverage in Barron's was separate from that to the recommendations from the investment firms. The media coverage is responsible for the wider dissemination of information to the investing public, partly because of the considerable cost of acquiring information from research reports before the Barron's publication. In other words, this suggests that information about security recommendations by investment firms is not fully reflected in prices until the subsequent Barron's coverage. They also found that speculation, predictions by other security analysts and expert observers, or leaked information prior to release affected returns for the positive recommendations. Additionally, the results also showed that the initial market reaction to stocks with positive recommendations reversed within five trading days.

In contrast, Desai and Jain found that companies whose accounting practices were criticized by Abraham Briloff, a retired professor of accounting who wrote influential articles in *Barron's*, experienced negative, risk-adjusted returns over longer one to two year periods. Thus, Briloff was able to foresee the coming decline in operation performance better than the market could. To explain his forecasting success, they cited three reasons. First, they noted that he was staunchly independent in that he did not work for an investment bank and did not accept compensation for research. Thus, the chance of a leak of information prior to publication was small. Second, he was a superb analyst who published several books in the accounting field, has been active and well regarded in the academic profession, and taught accounting for decades. Third, Briloff reported under his own discretion, when he was highly confident about the analyses, and not on a recurring basis with less data.

## **DATA AND METHODOLOGY**

### **Data**

Every week, *Barron's* provides buy (bullish) and sell (bearish) recommendations in the Picks and Pans section of their magazine publication. The following week each recommendation appears on their website with a link to the actual article, the issue date, the pre-story price, the current stock price and the percentage change of both the stock and the S&P 500 benchmark from the issue date. 53 buy (bullish) stocks and 20 sell (bearish) stocks were randomly selected from *Barron's* magazine. Mid-cap and small-cap stocks were removed, leaving large-cap S&P 500 traded stocks. Both samples included stocks of different volatility (high, medium and low beta), industries and sectors. The buy stocks were sampled from the years 2010 to 2012, whereas the sell stocks were sampled from the years 2007 to 2012.

Daily historical prices for both the stocks and S&P 500 benchmarks were provided from the Yahoo Finance website. 3-month historical U.S. Treasury bill rates, as a proxy for the risk-free interest rate, were provided from the U.S. Department of Treasury website. For both samples, a 13-day event window comprised of six pre-publication event days, the publication event date, and six post-publication event days, was evaluated.

## Methodology

Standard event study methodology was employed to measure abnormal returns of the company for the days on and around the event of interest (publication date). For each stock  $i$ , the Jensen Performance Index ( $\alpha$ ) was employed to calculate an abnormal return for each event day  $t$  as follows:

$$\alpha = r_{it} - [r_{ft} + (r_{mt} - r_{ft})\beta_i] \quad (1)$$

where:

- $r_{it}$  = rate of return for stock  $i$  on event day  $t$
- $r_{ft}$  = risk free rate (3-month Treasury bill rate) on event day  $t$
- $r_{mt}$  = stock market return (S&P 500) on event day  $t$
- $\beta_i$  = beta for stock  $i$

It is important to note that the Jensen Performance Index is a comparison of the realized return [ $r_{it}$ ] and the required return [ $r_{ft} + (r_{mt} - r_{ft})\beta_i$ ]. In other words, the Jensen Performance Index is a measure of performance that compares the realized return with the return that should have been earned for the amount of risk borne by the investor. Defining day 0 as the day in which the *Barron's* Picks and Pans publication was created, day -1 as one day prior to the publication, and +1 as one day after, the abnormal return for each stock over the event days -6 through +6 were calculated. Then, the abnormal returns were averaged across all stocks for each event day to obtain an average abnormal return:

$$AAR_t = \frac{1}{N} \sum_{i=1}^N \alpha_{it} \quad (2)$$

where:

- $AAR_t$  = average abnormal return on event day  $t$
- $N$  = number of stocks in the study

The average abnormal returns were aggregated to find the cumulative average abnormal returns:

$$CAAR_t = \sum_{i=-6}^6 AAR_t \quad (3)$$

where:

- $CAAR_t$  = cumulative average abnormal return from day -6 to the event day

The statistical significance of the computed average abnormal returns was assessed by computing the following test statistic for each event day  $t$ :

$$T_t = \frac{AAR_t}{\sqrt{\frac{s_1^2}{n_1} + \frac{s_2^2}{n_2}}} \quad (4)$$

where:

$T_t$  = t-statistic for the average abnormal return (AAR) on event day  $t$

$n_1 = n_2$  = number of samples

$s_1$  = standard deviation of all stock's realized return  $[r_{it}]$  on event day  $t$

$s_2$  = standard deviation of all stock's expected return  $[r_{ft} + (r_{mt} - r_{ft})\beta_i]$  on event day  $t$

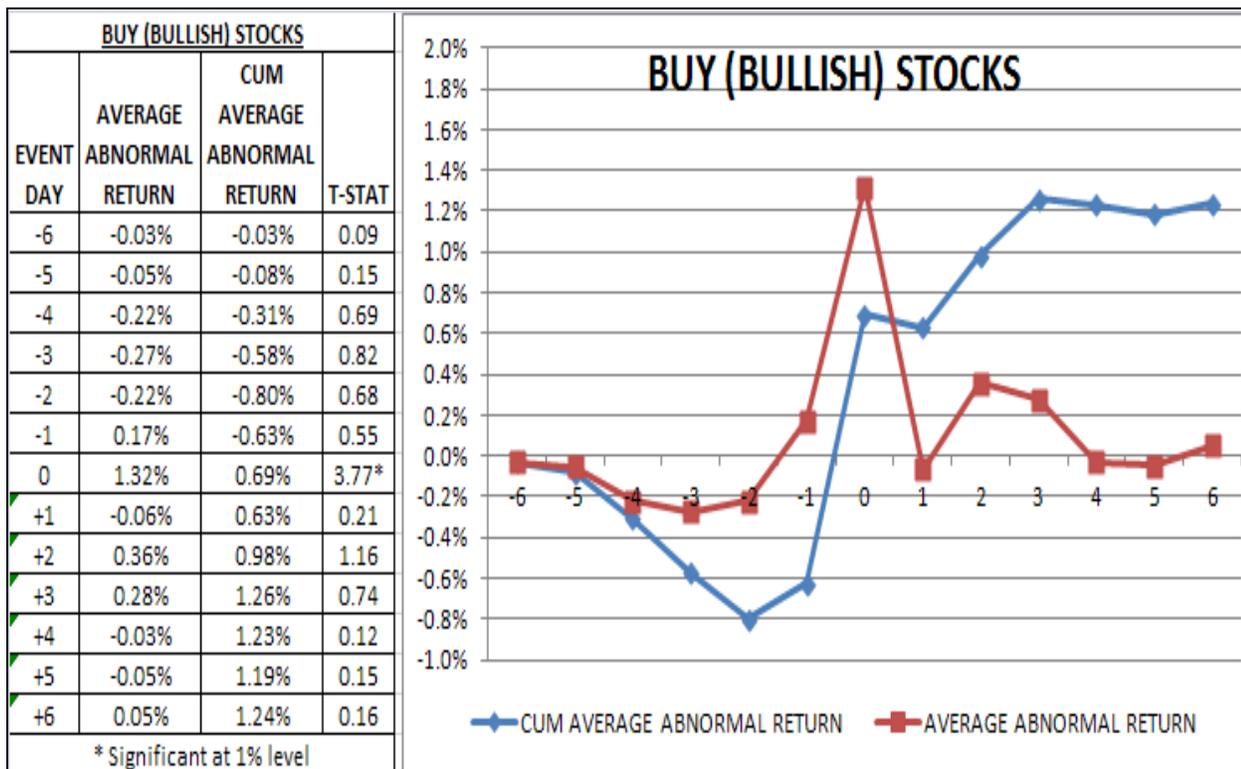
This is known as the two sample t-statistic, which is used in statistical inference for comparing the means of two independent, normally distributed populations with unknown true standard deviations. In this case, the realized return was compared with the required return for each stock.

## RESULTS

Average abnormal return and cumulative average abnormal returns with the associated t-statistic by event day for the buy (bullish) stocks are shown in Figure 1.

FIGURE 1

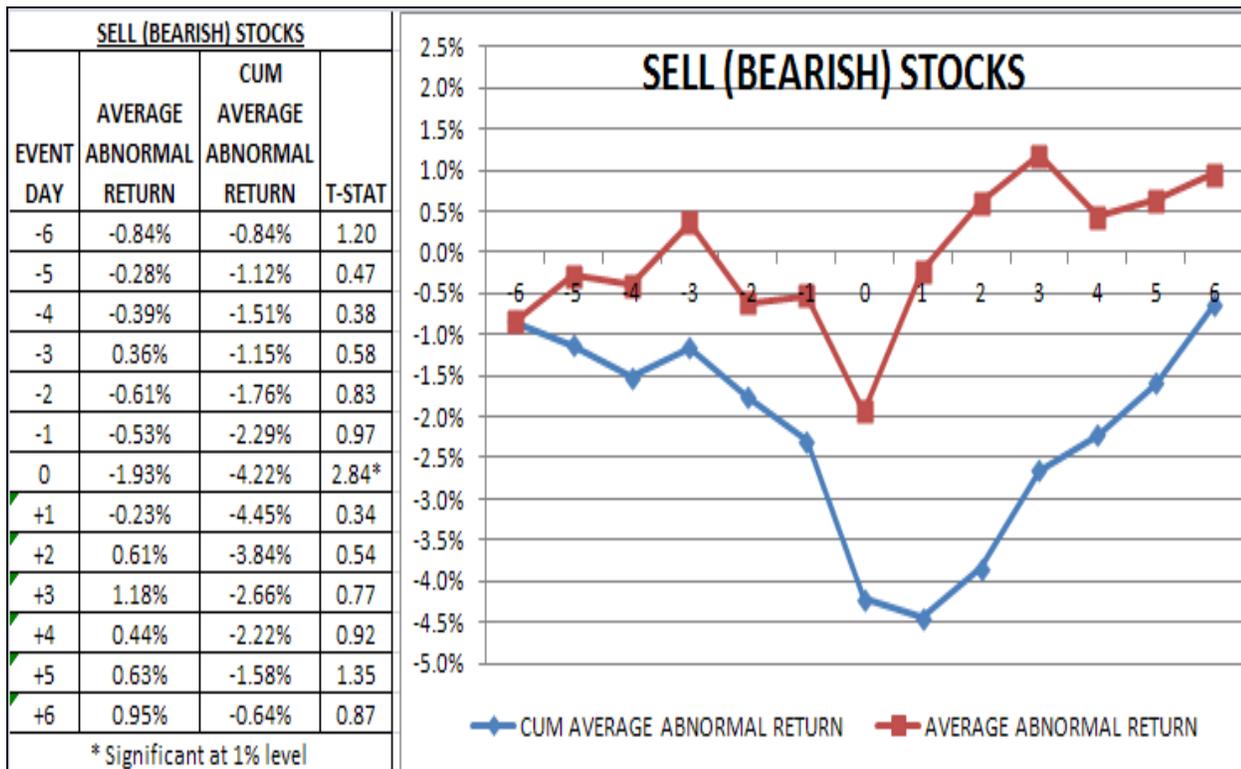
### Abnormal Return Data for Buy (Bullish) Stocks



Average abnormal return and cumulative average abnormal returns with the associated t-statistic by event day for the sell (bearish) stocks are shown in Figure 2.

FIGURE 2

Abnormal Return Data for Sell (Bearish) Stocks



The Jensen Index is utilized because it permits an objective comparison of performance relative to the market, after adjusting for risk. For the buy stocks, a t-statistic value of 3.77 indicates a statistically significant average abnormal return at the 1% significance level. Similarly, for the sell stocks, a t-statistic value of 2.84 indicates a statistically significant average abnormal return at the 1% significance level. This evidence strongly supports the hypothesis, indicating that the *Barron's* Picks and Pans do have an abnormal effect on the stock price.

Additionally, no statistically significant differences were witnessed between stocks with different volatilities (high beta, medium beta, low beta), in different industries or sectors, and in different years. The empirical results also show that the stock price for stocks with sell recommendations is essentially reversed within six trading days of the publication date, whereas the stock price for stocks with buy recommendations appears to have increased steadily over six trading days after the publication date. These results are in conflict with Han and Suk's study, whose results showed that the initial market reaction to stocks with buy recommendations reversed within five trading days.

CONCLUSIONS

This study reviewed the stock price impact of *Barron's* Picks and Pans recommendations and found that there is a statistically significant impact on the date of publication. There were abnormal returns associated with *Barron's* buy and sell stocks recommendations. The findings are clear and distinctive, and they succeed in supporting the proposed hypothesis from 2007 to 2012.