

**The Impact of Second-Hand Information on Stock Prices:  
Tests of the Information, Price Pressure, and Implicit Claims Hypotheses**

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## Abstract

We examine the impact on stock prices of purchase recommendations published in the popular financial weekly, *Barron's*. Three competing, but not mutually exclusive, hypotheses are tested. The *price pressure* hypothesis poses that the recommendation causes temporary buying pressure by naive investors, which leads to abnormal returns that quickly reverse. The *information* hypothesis poses that the recommendation discloses relevant information to the market, resulting in abnormal returns that do not reverse. The *implicit claims* hypothesis maintains that the recommendation signals not only shareholders but also other stakeholders, whose reassessment of the value of implicit contracts granted by the company results in a permanent change in value. The results show that the publication of this second-hand information has a positive and significant impact on stock prices at the time of publication. They provide support for the information and implicit claims hypotheses, and weak support for the price pressure hypothesis. In addition to confirming the results of prior studies, these results provide support for the implicit claims hypothesis and the notion that organizational capital has an impact on firm value.

# **The Impact of Second-Hand Information on Stock Prices: Tests of the Information, Price Pressure, and Implicit Claims Hypotheses**

## **I. Introduction**

The objective of this study is to provide additional evidence on the impact of second-hand information on stock prices. We examine a large sample of buy and sell recommendations contained in *Barron's* over the five-year period from January 1, 1986 through December 31, 1990. Three competing, but not mutually exclusive, hypotheses are tested to explain abnormal returns associated with the recommendations. The *price pressure* hypothesis poses that the recommendation causes temporary buying pressure by naive investors, which leads to abnormal returns that quickly reverse. The *information* hypothesis poses that the recommendation discloses relevant information to the market, resulting in abnormal returns that do not reverse. The *implicit claims* hypothesis maintains that the recommendation signals not only shareholders but also other stakeholders, whose reassessment of the value of implicit contracts granted by the company results in a change in value that does not reverse.

The results show that the *Barron's* recommendations have a substantial impact on stock prices on the date of announcement. They provide support for the information and implicit claims hypotheses, and weak support for the price pressure hypothesis. In addition to supporting the results of prior studies, these results provide support for the implicit claims hypothesis and the notion that organizational capital has an impact on firm value.

## **II. The Impact of Second-Hand Information On Stock Prices**

Second-hand information is information that has been collected from public sources and manipulated or simply reported again by a public news source. Second-hand information does not

include "hold for release" or non-public information; it represents information that is presumably already known to the market but is now being disseminated by another vehicle.

Several prior studies document the impact of second-hand information on securities prices, see for example, Davies and Canes (1978), Groth, Lewellen, Schlarbaum, and Lease (1979), Copeland and Mayers (1982), Bjerring, Lakonishok, and Vermaelen (1983), Stickel (1985), Glascock, Henderson, and Martin (1986), Pari (1987), Liu, Smith, and Syed (1990), Barber and Loeffler (1993), Trahan and Bolster (1995), and Desai and Jain (1995).<sup>1</sup> The announcement period abnormal returns documented in these studies range from 0.66 percent to 3.53 percent and are generally found to be short-lived.

Barber and Loeffler (1993) use their data on second-hand information price effects to test price pressure and information hypotheses. Trahan and Bolster (1995) also examine the price pressure and information hypotheses, while also discussing how the notion of organizational capital, developed by Cornell and Shapiro (1987), may play a role in second-hand information price effects. In the remainder of this section, we briefly review the price pressure and information hypotheses. We then present a more detailed discussion of the notion of reputational or organizational capital developed by Titman (1984) and Cornell and Shapiro (1987), and discuss how the resulting implicit claims hypothesis can be tested using second-hand information price effects.

#### **A. The Price Pressure Hypothesis**

The price pressure hypothesis posits that the demand curve for stocks is not perfectly elastic. The hypothesis predicts that temporary buying (selling) pressure by naive investors in the recommended securities results in positive (negative) abnormal returns following the buy (sell) recommendations disseminated as second-hand information. Price pressure effects will be short-lived, as the abnormal returns will reverse as the temporary buying pressure dissipates.

Barber and Loeffler (1993) and Trahan and Bolster (1995) find evidence consistent with the price pressure hypothesis. Analysts' recommendations disseminated as second-hand

information do result in significant abnormal returns that partially reverse in the short-term. Trahan and Bolster (1995) also find that abnormal returns are inversely related to firm size. This is consistent with both the price pressure and information hypotheses since smaller, more thinly traded firms are likely to have demand curves that are less elastic than larger firms.

### **B. The Information Hypothesis**

The information hypothesis posits that the dissemination of second-hand information reveals new and relevant information to the market, resulting in a permanent revaluation of the recommended firm's stock. The hypothesis predicts that new information contained in the buy (sell) recommendations results in positive (negative) abnormal returns as the market adjusts to the value of the new information. Information effects will be permanent.

Barber and Loffler (1993) and Trahan and Bolster (1995) also find evidence consistent with the information hypothesis. Analysts' recommendations disseminated as second-hand information do result in significant abnormal returns that do not fully reverse in the short-term for buy recommendations. Trahan and Bolster's finding that abnormal returns are inversely related to firm size is also consistent with the information hypothesis. Since smaller firms are also more likely to be neglected by analysts, the information content of a published recommendation should increase as firm size decreases, leading to a prediction of larger abnormal returns for small firms. Arbel and Strebel (1982, 1983) refer to this articulation of the information hypothesis as the neglected firm effect.

### **C. The Implicit Claims Hypothesis**

Cornell and Shapiro (1987) develop a stakeholder theory whereby non-stockholder stakeholders hold implicit claims on the firm's resources. They distinguish implicit claims as claims that are too nebulous and state contingent to reduce to writing at a reasonable cost. For example, a company may sell the promise to continue to produce a product, leading to a continuing stream of service, support, and repairs. This claim is bundled with the goods and

services that the firm sells and has value to stakeholders. Under the implicit claims hypothesis, the impact of new information on stock prices depends on the extent of organizational capital (the value of all future implicit claims that the firm expects to sell). Since many stakeholders do not have as strong an incentive to be as continuously informed about the company as shareholders, stock prices may respond to second-hand information disseminated by well-known and credible sources.

Titman (1984) shows that a firm indirectly bears liquidation costs that it imposes on customers, in future states, in the form of lower prices for its goods and services in current states. A firm's probability of liquidation will impact its value, and this impact will vary with the importance of reputational capital to the firm. For example, Titman argues that computer, farm equipment, and automobile companies potentially impose high costs on their customers when they liquidate since the customers worry about the availability of future parts and service.

New information about the firm can cause a revaluation of implicit claims and of the firm. Similar to Titman (1984), Cornell and Shapiro (1987) argue that the cost a firm can impose on non-shareholder stakeholders by not fully honoring an implicit claim, will depend on what the stakeholder expects to receive in the future. Therefore, the manner in which stock prices respond to new information depends on the firm's net organizational capital and the nature of its stakeholders. Cornell and Shapiro argue that firms making computers, automobiles, durable goods, etc. are more likely to be impacted more heavily by implicit claims.

To the extent that the value of the firm depends on its ability to sell implicit claims, the implicit claims hypothesis yields the following testable implications:<sup>2</sup>

1. Companies will experience positive abnormal returns upon the announcement of good news and negative abnormal returns associated with the announcement of bad news. This effect is due to the impact the news has on non-shareholder stakeholders' assessment of the value of implicit claims.
2. The abnormal returns experienced upon the receipt of new news will be permanent.
3. Abnormal returns associated with bad news will be larger, in absolute value, than abnormal returns associated with good news. The upside potential increase in the

value of implicit claims due to good news is fixed closer to the current value of the claims than is the loss that will result from a default on implicit claim. In this sense, implicit claims possess properties similar to bonds.

4. Abnormal returns associated with good news will be inversely related to firm size because the benefit of free publicity should not exceed the cost of directly disseminating the information.
5. Abnormal returns associated with good news will be inversely related to the likelihood of financial distress because non-shareholder stakeholders will expect the firm to reduce its payout on implicit claims in the event of financial distress.
6. Abnormal returns associated with good news will be positively related to the nature of a firm's stakeholders in terms of the importance of implicit claims and organizational capital to the stakeholders. Customers of firms in industries that sell goods and services with a long-term implied commitment (high organizational capital) will place a higher value on implicit claims.
7. Abnormal returns associated with good news will be negatively related to regulation in an industry. Government regulation serves to protect the implicit claims of customers.
8. Abnormal returns associated with good news will be positively related to the visibility and credibility of the source of the news. The more visible and credible the source of news, the more likely that it will have an impact on non-stockholder stakeholders.

The price pressure, information, and implicit claims hypotheses are all offered as explanations for the impact of second-hand information on stock prices. Our objective is to provide further evidence of the impact of second-hand information and to disentangle the effects of these hypotheses. The price pressure hypothesis predicts that the release of second-hand information will cause an abnormal return that quickly reverses itself. The abnormal returns will be inversely related to firm size. The information hypothesis predicts that there will be abnormal returns that do not dissipate. The abnormal returns will be also inversely related to firm size. The implicit claims hypothesis also predicts an abnormal return that is inversely related to firm size and that does not dissipate. In addition, the implicit claims hypothesis predicts that the abnormal

return will be related to the magnitude and nature of a firm's organizational capital. Table 1 presents a summary of the three hypotheses and their predictions.

**Insert Table 1 Here**

## **II. Data and Methodology**

*Barron's* is a popular financial news weekly that attracts a well-educated readership of people who are likely to be actively managing or monitoring investments for themselves or others. See Trahan and Bolster (1995) for more details on *Barron's* readers. Weekly issues of *Barron's* often contain buy and sell recommendations for individual stocks from a variety of security analysts.<sup>3</sup> The colorful commentary provided by the Editor, Alan Abelson, in his "Up and Down Wall Street" column appears each week on the front page of *Barron's* and often includes a brief analysis of a stock worth buying or selling. Other analysts' recommendations are featured in the "Investment News and Views" section, and feature articles often contain specific recommendations from professional analysts.

To evaluate the performance of *Barron's* analysts, we compile a list of all firms listed on the New York Stock Exchange (NYSE), American Stock Exchange (ASE), or the National Association of Securities Dealers Automated Quotations system (NASDAQ) with buy or sell recommendations contained in the weekly issues of *Barron's* during the period January 1, 1986 to December 31, 1990.

Careful scrutiny of the weekly issues of *Barron's* over the five year period yielded 1,395 purchase recommendations and 97 sell recommendations for firms that also have returns data on the Center for Research in Securities Prices (CRSP) tapes.<sup>4</sup>

*Barron's* is sent to press after the market closes on Friday afternoon. No information contained in the edition is disclosed prior to the market close. The issues are released early Saturday morning and arrive on news stands later that morning. The issues are dated for the



Monday after publication. This Monday (or Tuesday in the event of a Monday holiday) is used as the event date (day 0).

We use the standard event study methodology of Brown and Warner (1985) to compute the daily excess returns. Average daily abnormal returns are computed using a two-step procedure. First, we estimate the parameters of a single-factor market model for each firm. We use the returns for days -130 to -30 to estimate each firm's alpha and beta coefficients. Second, we compute the abnormal return on day  $t$  as:

$$AR_t = \frac{1}{N} \sum_{i=1}^N AR_{it} \quad (1)$$

where,

$N$  = the number of observations (recommendations),

$AR_{it} = R_{it} - \alpha_i - \beta_i RM_t$ ,

$R_{it}$  = the daily return for firm  $i$  on day  $t$

$\alpha_i, \beta_i$  = parameters of the market model estimated over days -130 to -30 and

$RM_t$  = the daily return on the CRSP equally weighted index (including dividends)  
on day  $t$ .

Cumulative abnormal returns (CAR) are computed as:

$$CAR_{t_1, t_2} = \sum_{t=t_1}^{t_2} AR_t \quad (2)$$

where,

$t_1$  = the first day of the accumulation period, and

$t_2$  = the last day of the accumulation period.

We test the abnormal returns for statistical significance using a Z-statistic as described in Mikkelsen and Partch (1988).<sup>5</sup> The Z-statistic is computed as:

$$Z = \frac{1}{\sqrt{N}} \sum_{i=1}^N \left[ \frac{\sum_{t=t_1}^{t_2} AR_{it}}{\sqrt{\text{Var} \sum_{t=t_1}^{t_2} AR_{it}}} \right] \quad (3)$$

The denominator is the square root of the variance of the cumulative abnormal return of firm  $i$ .

This variance is defined as:

$$\text{Var} \left( \sum_{t=t_1}^{t_2} AR_{it} \right) = V_i^2 \left[ T + \frac{T^2}{ED} + \frac{\sum_{t=t_1}^{t_2} RM_t - T(\overline{RM})^2}{\sum_{j=1}^{ED} (RM_j - \overline{RM})^2} \right] \quad (4)$$

where,

$V_i^2$  = the residual variance of firm  $i$ 's market model regression,

$T$  = the number of days in the cumulation period ( $t_2 - t_1 + 1$ ),

$ED$  = the number of days in the period used to estimate the market model, and

$\overline{RM}$  = the mean market return in the estimation period.

Data for the other explanatory variables described in Table 1 is obtained as follows:

**Firm Size**—The natural log of total net sales, obtained from Compustat, is used to measure firm size.

**Likelihood of Financial Distress**—Altman's Z score, obtained from Compustat is used to measure the likelihood of financial distress. The interpretation of the Z score is that a higher Z implies a lower likelihood of financial distress.

**Organizational Capital**—Organizational capital is represented by a dummy variable set equal to 1 for industries where stakeholders are especially concerned with implicit claims and 0 otherwise. Following the discussion in Cornell and Shapiro (1987) and Bowen, DuCharme, and Shores (1995), industries producing durable goods and professional services (SIC codes 35 through 38, 50, and 80 through 87) are assigned a value of 1..

**Regulation**—Regulation is represented by a dummy variable set equal to 1 for regulated industries and 0 otherwise. Regulated industries are Transportation (SIC 40-47), Communications (SIC 48), Electric and Gas (SIC 49), Depository Institutions (SIC 60), Non-Depository Institutions and Securities Dealers (SIC 61-62), and Insurance (SIC 63-64).

**Analysts' Credibility**—Analysts' reputation is represented by a dummy variable set equal to 1 if the recommendation was contained in Editor, Alan Abelson's "Heard on the Street" column and zero otherwise. Neither Mr. Abelson nor the analysts report any "hold for release" or non-public information; both are reporting "second-hand" information. Since Mr. Abelson is not employed by anyone else, it seems likely that his recommendations represent a new opinion that is released to the market each Monday. On the other hand, professional security analysts are paid for their opinions. Therefore, it is likely that some subset of well-heeled clients have already gained access to the analysts' recommendations that subsequently appear on the pages of *Barron's*. If this is the case, Mr. Abelson's recommendations should have a larger impact on stock prices than the publication of analysts' recommendations.<sup>6</sup> Mr. Abelson is also a more neutral source of recommendations and may have more credibility.

### III. Results

Table 1 shows the daily average abnormal returns (AR), cumulative abnormal returns (CAR), and their respective Z-Statistics for approximately one trading month prior to and after the *Barron's* publication date. Figure 1 shows a graph of the CARs over the same period.

For the buy recommendations, during the 20 days prior to the recommendation in *Barron's*, the ARs, show small up and down movements that are generally not statistically significant. On the day that the *Barron's* information hits the market, day 0, there is a positive and significant AR of 2.05 percent.<sup>7</sup> The ARs follow a pattern over the following 20 days similar to

the 20 days prior to the event date. The CARs for event days zero through +20 decline to 1.85% and remain statistically significant. These results are comparable with prior studies of the impact of second-hand information. The announcement in *Barron's* is associated with a positive and significant increase in the price of the stock. This increase declines slightly over the next month. There is no evidence of a significant run up in stock prices in the days before *Barron's* is released, which suggests that the information is not being leaked to the market prior to publication.

**Insert Table 2 Here**

**Insert Figure 1 Here**

For the sell recommendations, during the 20 days prior to the recommendation in *Barron's*, the ARs, show small up and down movements that are generally not statistically significant. On the day that the *Barron's* information hits the market, day 0, there is a negative and significant AR of -2.41 percent. The ARs follow a pattern over the following 20 days similar to the 20 days prior to the event date. The CARs for event days zero through +20 go down further, to -3.61 percent, but by day +20 the CAR is no longer statistically different from zero.

The abnormal returns for buy recommendations are consistent with the information and implicit claims hypotheses. There is a significant positive abnormal return on day zero, followed by some reversion over the next 20 days. The CAR remains positive and significant after 20 days, suggesting that there is an information and/or implicit claim component to the event. Finding only a slight drop in the CARs over the 20 days does not provide strong support for a price-pressure effect. Sell recommendations have a slightly larger impact than buy recommendations, supporting the implicit claims hypothesis, however the sell recommendations CAR is not statistically significant after 20 days, supporting the price pressure hypothesis.

The results are further broken down in Table 2. A non-parametric sign test also supports a significant positive effect of buy recommendations and negative effect for sell recommendations.

These results also document an analysts credibility effect in that *Barron's* Editor Alan Abelson's buy and sell recommendations have a bigger effect on stock prices than the recommendations of the other analysts.

### **Insert Table 3 Here**

To further disentangle the three hypotheses, we regress the day 0 ARs against the variables representing firm size, likelihood of financial distress, organizational capital, regulation, and analysts credibility. We also include variables for to control for financial leverage (debt to equity ratio) and stock price (closing share price).<sup>8</sup> The results are shown in Table 3.

### **Insert Table 4 Here**

For buy recommendations, the results show that the day zero AR is negatively related to firm size, the likelihood of financial distress, and the firm being in a regulated industry. The AR is positively related to organizational capital and analyst's credibility. All coefficients are statistically significant at the one percent level, except for regulation, which is significant at the eight percent level. The leverage and share price control variables are not statistically significant.<sup>9</sup>

These results support the price pressure, information, and implicit claims hypotheses in that the ARs are negatively related to firm size. The results also support the implicit claims hypothesis because, after controlling for firm size, the likelihood of financial distress, regulation, organizational capital, and analyst's credibility are all statistically significant with the hypothesized signs. While sell recommendations do lead to negative abnormal returns that do vary with analysts' credibility (see Table 3), the regression for the sell recommendations is not statistically significant and fails to support any of the hypotheses. This may be in part due to the relatively small sample of sell recommendations.

#### IV. Summary and Conclusions

Stock purchase recommendations published in *Barron's* have a positive impact on prices of the recommended stocks. The effect is highly concentrated on the day that the *Barron's* information hits the market (day zero AR = 2.05 percent), and is highly significant (Z-statistic = 10.22). The CAR declines to a statistically significant 1.85 percent after 20 days. The large jump on day zero (and the inverse relationship with firm size) followed by a relatively small reversal over the subsequent 20 days is consistent with the information and implicit claims hypotheses, and to a lesser extent with the price pressure hypothesis since the reversal is small.

Introducing additional firm-specific variables to test the implicit claims hypothesis provides evidence that it is a factor in explaining the abnormal returns. Abnormal returns for buy recommendations are negatively related to firm size, the likelihood of financial distress, and the firm being in a regulated industry, and positively related to organizational capital and analyst's credibility. These results support the implicit claims hypothesis.

These results add to a growing body of research documenting the effects of second-hand information on stock prices. In addition to supporting the results of prior studies of second-hand information price effects, they provide support for the implicit claims hypothesis and the notion that organizational capital has an impact on firm value.

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**Table 1**  
**Hypotheses Relating to the Impact of Second-Hand Information on Stock Prices**  
**And the Predictions of the Hypotheses**

The price pressure hypothesis poses that the recommendation causes temporary buying pressure by naive investors which leads to abnormal returns. The information hypothesis poses that the recommendation discloses relevant information to the market resulting in abnormal returns. The implicit claims hypothesis maintains that the recommendation signals not only shareholders but other stakeholders whose reassessment of the value of implicit contracts granted by the company results in a change in value.

<b>Hypotheses</b>				
<b>Variable</b>	<b>Metric</b>	<b>Price Pressure</b>	<b>Information</b>	<b>Implicit Claims</b>
Initial Price Effect	Abnormal return day 0	Positive for buy recommendation, negative for sell.	Positive for buy recommendation, negative for sell.	Positive for buy recommendation, negative for sell.
Dissipation of Effect	Cumulative abnormal return days 0 to 21	Rapid	None	None
Magnitude of Effect	Size of cumulative abnormal return on day 0 for buy versus sell recommendations	n.a.	n.a.	Larger, in absolute value, for sell recommendations.
Firm Size	Total sales (logged)	Inversely related to abnormal returns.	Inversely related to abnormal returns.	Inversely related to abnormal returns.
Likelihood of Financial Distress	Altman's Z	n.a.	n.a.	Inversely related to abnormal returns.
Organizational Capital	SIC code dummy variable	n.a.	n.a.	Larger abnormal returns for industries with high organizational capital
Regulation	SIC code dummy variable	n.a.	n.a.	Smaller abnormal returns for regulated industries.
Analysts' Credibility	Dummy variable for Editor of <i>Barron's</i> versus other analysts	n.a.	n.a.	Positively related to abnormal returns.

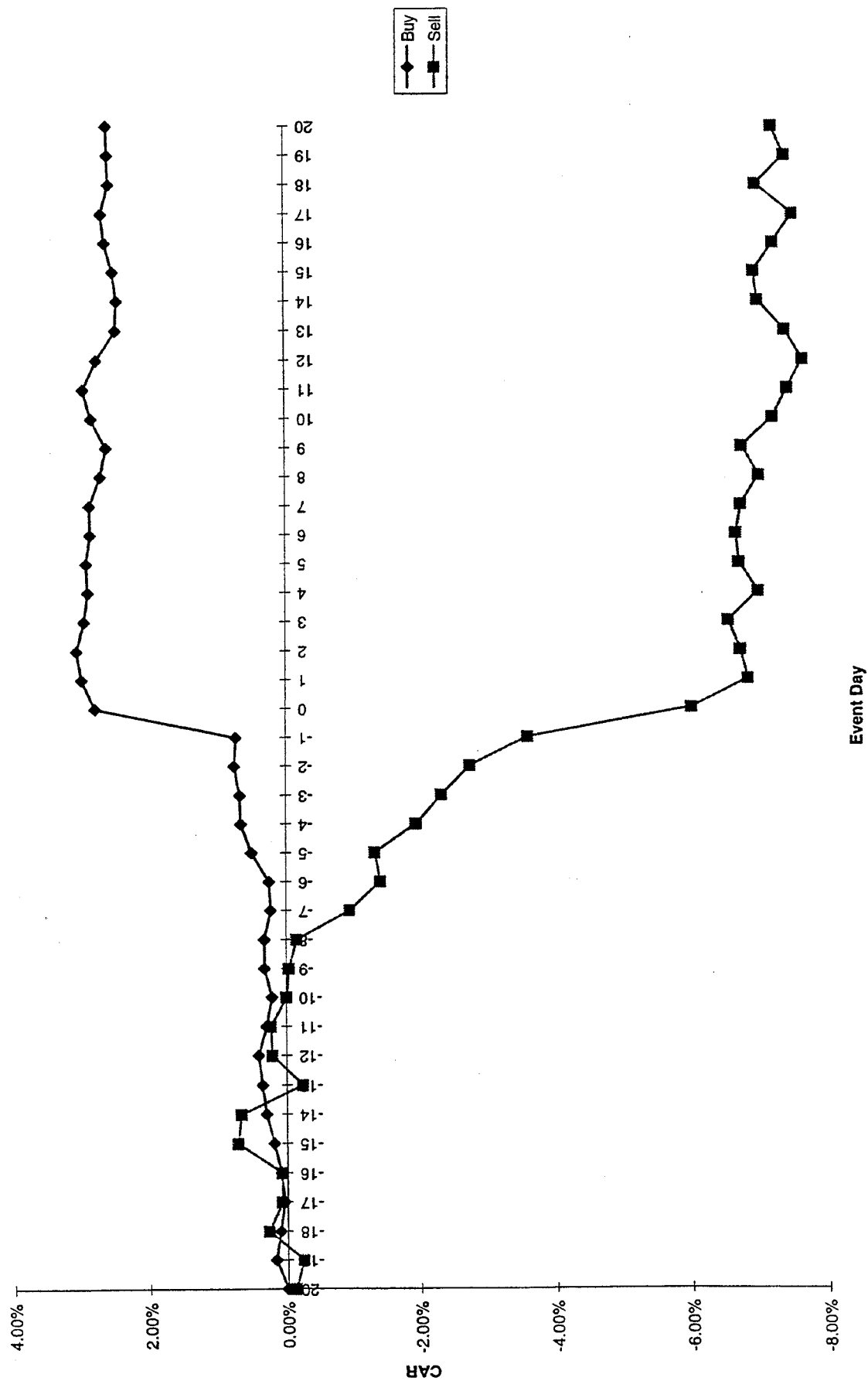
**Table 2**  
**Market Model Abnormal Returns and Cumulative Abnormal Returns for**  
**1, 395 Buy and 97 Sell Recommendations in *Barron's* During 1/1/86 Through 12/31/90**  
**(Day 0 is *Barron's* Publication Date)**

Event Day	Buy Recommendations			Sell Recommendations		
	Abnormal Return	Z- Stat	Cumulative Abn. Return	Abnormal Return	Z- Stat	Cumulative Abn. Return
-20	0.00%	0.09		-0.12%	-0.48	
-19	0.17%	1.88		-0.12%	0.34	
-18	-0.07%	-1.37		0.51%	1.38	
-17	-0.06%	-1.44		-0.20%	-0.25	
-16	0.05%	0.08		0.00%	0.69	
-15	0.10%	1.05		0.65%	1.73	
-14	0.11%	2.62**		-0.05%	-0.40	
-13	0.06%	1.38		-0.91%	-2.27*	
-12	0.05%	1.25		0.45%	1.09	
-11	-0.12%	-3.12**		0.02%	-0.47	
-10	-0.08%	-1.17		-0.23%	-1.12	
-9	0.11%	1.03		-0.04%	-0.15	
-8	0.00%	0.21		-0.12%	-0.46	
-7	-0.09%	-1.24		-0.80%	-2.93**	
-6	0.02%	0.48		-0.46%	-1.61	
-5	0.26%	6.06**		0.08%	0.03	
-4	0.15%	2.56*		-0.61%	-0.02	
-3	0.02%	-0.48		-0.37%	-1.56	
-2	0.08%	1.71		-0.43%	-1.65	
-1	-0.02%	0.32		-0.85%	-2.10*	
0	2.05%	37.71**	2.05%**	-2.41%	-8.96**	-2.41%**
1	0.20%	5.03**	2.24%**	-0.81%	-1.56	-3.22%**
2	0.07%	1.34	2.31%**	0.11%	0.09	-3.11%**
3	-0.11%	-1.77	2.20%**	0.17%	0.80	-2.94%**
4	-0.06%	0.53	2.15%**	-0.43%	-1.01	-3.37%**
5	0.02%	2.25**	2.17%**	0.27%	1.25	-3.10%**
6	-0.06%	-0.43	2.11%**	0.05%	-0.08	-3.05%**
7	0.01%	-0.58	2.12%**	-0.08%	-0.70	-3.13%**
8	-0.16%	-3.23**	1.96%**	-0.26%	-0.97	-3.39%**
9	-0.09%	-1.70	1.88%**	0.25%	0.54	-3.14%**
10	0.22%	4.54**	2.10%**	-0.45%	-1.33	-3.60%**
11	0.12%	3.11**	2.21%**	-0.22%	-0.42	-3.82%**
12	-0.20%	-4.02**	2.01%**	-0.23%	-0.63	-4.05%**
13	-0.29%	-6.07**	1.72%**	0.27%	1.48	-3.79%**
14	-0.02%	0.42	1.70%**	0.39%	1.86	-3.40%*
15	0.06%	0.97	1.76%**	0.05%	0.73	-3.35%*
16	0.12%	4.00**	1.88%**	-0.28%	-0.25	-3.63%*
17	0.05%	1.58	1.93%**	-0.29%	-1.28	-3.92%*
18	-0.11%	-2.60**	1.82%**	0.54%	1.70	-3.38%*
19	0.01%	0.42	1.83%**	-0.42%	-1.04	-3.80%*
20	0.02%	1.80	1.85%**	0.19%	0.99	-3.61%

\*\* Statistically significant at the 1 percent level.

\* Statistically significant at the 5 percent level.

Figure 1  
 Cumulative Abnormal Returns (CAR) For Stocks Recommended in Barrons



**Table 3**  
**Market Model Abnormal Returns (AR) for Event Day 0 (Monday Date of *Barron's*)**  
**Stocks Recommended in *Barron's* During 1/1/86 Through 12/31/90**  
**Broken Down by Source of Recommendation**

Source	Buy Recommendations	Sell Recommendations
<b>"Up and Down Wall Street" -- Abelson</b>		
Abnormal Return (AR)	3.96%	-3.23%
Z-Statistic	16.20*	-6.81*
Number of Firms	86	31
Firms With AR > 0	77	8
<b>Other Analysts</b>		
Abnormal Return (AR)	1.91%	-1.96%
Z-Statistic	35.29*	-5.96*
Number of Firms	1,318	66
Firms With AR > 0	1,027 <sup>a</sup>	24 <sup>a</sup>
<b>Total -- All Recommendations</b>		
Abnormal Return (AR)	2.05%	-2.41%
Z-Statistic	37.71*	-8.96*
Number of Firms	1,395	97
Firms With AR > 0	1,104 <sup>a</sup>	32 <sup>a</sup>

\*Statistically significant at the 1 percent level.

<sup>a</sup>Statistically significant at the 1 percent level, determined by a non-parametric Signs test.

Abnormal returns for buy recommendations are statistically significantly different, at the 1 percent level, for Abelson versus the other analysts, determined by a *t* test for difference in means. The difference for the sell recommendations is not statistically significant.

**Table 4**

**OLS Regression Results of Abnormal Returns (AR) for Event Day 0 (Monday Date of *Barron's*) Regressed on Firm Size (Logged Sales), Altman's Z Score, Organizational Capital (Industry Dummy), Regulation (Industry Dummy), and Analysts' Credibility (Analyst Dummy), Controlling for Financial Leverage (Debt to Equity Ratio) and Share Price. Stocks Recommended in *Barron's* During 1/1/86 Through 12/31/90**

Independent Variable	Buy Recommendations		Sell Recommendations	
	Coefficient	<i>t</i> statistic	Coefficient	<i>t</i> statistic
Constant	0.070	14.21***	-0.076	-2.14**
Firm Size	-0.007	-11.72***	0.006	1.19
Altman's Z Score	-0.001	-2.93***	0.001	0.75
Organizational Capital	0.006	2.65***	-0.006	-0.29
Regulation	-0.007	-1.75*	0.012	-0.41
Analysts' Credibility	0.012	2.53***	0.020	1.05
Financial Leverage	0.00008	0.92	-0.00027	-0.15
Stock Price	0.00002	0.83	0.00044	0.79
R Square	14.8%		10.3%	
<i>F</i> Statistic	25.59***		0.97	

\*\*\* Statistically significant at the 1 percent level.

\*\* Statistically significant at the 5 percent level.

\* Statistically significant at the 8 percent level.

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## Footnotes

<sup>1</sup>Barber and Loeffler (1993) provide a more detailed summary of the results of several of these prior studies.

<sup>2</sup>All of these are discussed by Cornell and Shapiro (1987).

<sup>3</sup>In a phone conversation with a *Barron's* editor, he was careful to note that *Barron's* is not a licensed investment professional and is not in the business of making buy and sell recommendations. The term is used throughout this paper but legally should be construed to mean favorable or unfavorable analysis of a company.

<sup>4</sup>The high ratio of buy to sell recommendations is a recurring theme in studies of analysts' recommendations. Sell recommendations often are associated with recanting of prior positive advice and may result in the loss of informational access to insiders.

<sup>5</sup>This Z-statistic adjusts for the dependence created by cumulating individual abnormal returns using a single set of estimates for alpha and beta. We also compute the Z-statistic used by Dodd and Warner (1983), which assumes independence. The Z-statistics are very similar for both methods and none of the levels of significance reported are different if the Dodd and Warner method is used.

<sup>6</sup>Implicit in this statement is the assumption that Mr. Abelson's recommendations are considered as credible as those rendered by full-time security analysts.

<sup>7</sup>When the results are split by exchange listing we find a day zero AR of 1.52 percent for NYSE/ASE firms (Z-statistic = 6.32) and 3.0 percent (Z-statistic = 8.46) for NASDAQ firms. The larger reaction for NASDAQ firms is consistent with Grant (1980), Lease and Lewellen (1982), and Chari, Jagannathan and Ofer (1988).

<sup>8</sup>It has been suggested that firms with a low price per share may exhibit larger abnormal returns due to changes in the bid-ask spreads having a significant impact on returns for these firms. We include the closing price per share to control for this possibility.

<sup>9</sup>Variance inflation factors were computed to test for multicollinearity and none was found.