Market Reactions to Jim Cramer's *Mad Money* Lightning Round

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Abstract

Numerous empirical studies examine investment advisory services and find statistically significant abnormal returns around publication or broadcast of investment recommendations. From Jim Cramer's *Mad Money* broadcast, the opportunity is presented to examine another source of investment recommendations through his *Lightning Round* segment. This research finds companies which were recommended buys by Mr. Cramer during the *Lightning Round* consistently have abnormal stock movement before and after the on-air mention, however investors' reactions to the recommendations do not create an exploitable trading strategy. Stocks with bearish recommendations are found to experience even less reaction.

Introduction

The abundance of investment advice available from internet websites, magazines, mutual fund company literature, financial advisors, radio programs, and television shows provides a daunting landscape of information and guidance which individuals must usually navigate on their own. A relatively new player on that field is the nightly *Mad Money* program, which airs on CNBC each evening at 6 p.m. and is hosted by charismatic personality, Jim Cramer. On the show, Mr. Cramer discusses both his own investment ideas as well as those put forth by viewers who call the program during its *Lightning Round* segment. In an earlier paper (2007), the authors analyze the host-originated stock recommendations and find statistical evidence using stock return and share volume event analysis that investors react to his buy recommendations more strongly than to his sells. Further, they identify that the average raw return measured over the first trading day after a recommendation has aired is contained almost entirely in the difference between the close on the show's air date and the next day's open prices. In this paper, we examine the bullish and bearish sentiments offered by the host on stocks about which viewers ask for counsel.

Studies which examine investment advice conveyed via different media contribute to the ongoing effort to understand the impact of individual investor activity on asset prices and market volatility. In addition, they offer insights as to whether the market is efficient to the entrance of these recommendations into the store of public information. The literature has been assembled with analyses of brokerage stock rating reports by Ho and Harris (1998) and of the publication of newspaper or magazine

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columns by Mathur and Waheed (1995), Liu, Smith, and Syed (1990), Beneish (1991), Liu, Smith, and Syed (1992), Bauman, Datta, and Iskandar-Datta (1995), and Sarkar and Jordan (2000). Special features such as the *Wall Street Journal*'s dartboard contest is examined as a potential source of actionable investing strategy by Pruitt, Van Ness and Van Ness (2000), Albert and Smaby (1996), Metcalf and Malkiel (1994), and Barber and Loeffler (1993). Hirschey, Richardson, and Scholz (2000) venture onto the internet to investment recommendations presented by the internet site *The Motley Fool*, while Dewally (2003) tracks two on-line investment newsgroup sites. A number of authors use different sample periods in their research on the *Wall $treet Week* show hosted by Louis Rukeyser. Beltz and Jennings (1997) analyze 801 recommendations from the 1990-1992 time period and find transient positive price and volume reactions in stocks that are suggested as buys. Over an earlier 1983-1984 timeframe, Pari (1987) also finds abnormal (excess over benchmark) performance during the trading day after a broadcast in which stock purchases were recommended. The results in Griffin, Jones, and Zmijewski (1995) agree with these two studies.

The remainder of this paper is organized as follows. We discuss the data and analysis methodology followed by the event study results and our conclusion.

Data and Methodology

We obtain *Mad Money Lightning Round* stock mentions during shows aired nightly between 10/17/2005 and 12/23/2005 from TheStreet.com. Descriptive statistics on these mentions are shown in Tables I and II. A total of 711 companies account for 1339 mentions during the sample period, with 809 of these mentions being of bullish sentiment and 530 of bearish sentiment. In addition, 264 companies comprise 892 (mostly bullish) of the 1339 mentions, while the other 447 companies were the subject of one *Lightning Round* query, with more than half of those receiving bearish sentiment. Among these 264 companies mentioned by viewers on multiple broadcasts, Mr. Cramer's sentiment was consistently bullish or bearish for 192 firms, with one change in sentiment noted for 60 companies and more than one change observed for the remaining 12 firms. Interestingly, the highest consistency ratio is seen among the companies which produced the most viewer call-ins – sentiments offered for 18 of the 20 companies which received more than six mentions on shows between October 17 and December 23 were consistently bullish or bearish.

Our initial event study tests examine the bullish and bearish sentiment samples separately, and include all one-mention stocks plus the first mention of companies for which multiples exist, so long as the next subsequent mention is at least four days removed from the initial one to keep the [0,+3] event window clean. This criterion, along with our requirement of 40 days of historical returns to calculate estimation period parameters, results in 42 of the 711 companies to be removed from the sample. Table III contains the breakdown of the remaining 669 observations by show date. Descriptive statistics in Table IV reveal that the majority of these stock mentions are in the manufacturing (27.8%) and construction (16.3%) industries based on their CRSP SIC codes on the date of their mention in a *Lightning Round.*

We employ the standard event study methodology outlined by Brown and Warner (1980, 1985) and used by many of the studies cited previously. Daily returns, opening prices, and volume data for the sample are taken from the CRSP daily files via Wharton Research Data Services. Event day 0 is the date of airing of a show, which is initially televised at 6 p.m. in the east. Guided by the hypothesis that viewers to some extent call the show about stocks that have been in the news recently, we seek to analyze short event windows preceding event day 0 in addition to windows following it, during which any reaction might be detected. We include day 0 in the pre-event intervals because by the time the show is broadcast at 6pm a full business day's news is completed for investors to digest. Abnormal returns are determined in three ways, relative to a market model prediction, to the CRSP value-weighted index, and to a stock's recent historical mean:

$$AR_{i,eventday(t)} = R_{i,t} - [\hat{\alpha}_i + \hat{\beta}_i * R_{mkt,t}] \tag{1}$$

$$AR_{i,eventday(t)} = R_{i,t} - [R_{mkt,t}] \quad \text{“mkt” is CRSP value-weighted index} \tag{2}$$

$$AR_{i,eventday(t)} = R_{i,t} - [\bar{R}_i]. \tag{3}$$

Market model parameters and stock return means are estimated using daily returns from eleven days (two full business weeks) prior to event day 0 to a maximum of 186 days preceding the event day, or about eight months time. A minimum of 40 days is required for a recommendation to be included in the final tests, but only 23 of the 669 final sample observations have less than the full estimation period of 175 daily returns. The bearish sample of 354 observations has an average beta and market capitalization of 1.27 and \$9.135 billion, respectively, while the bullish sample averages are 1.21 and \$14.92 billion.

Results

A. Bullish Mentions

We report the results of event study analysis of the sample of 315 *Lightning Round* bullish sentiments in Table V. Average abnormal returns relative to the market model, CRSP value-weighted index, stocks' recent means, as well as raw returns are reported for single event days -10, -1, 0, +1. Analysis of event windows covering periods [-4,0] and [-2,0] leading up to and including the broadcast event dates and the [0,+1], [0,+2], [0,+10] and [0,+20] windows following the *Lightning Round* mentions are also exhibited in the table. We note here that while the [0,+3] window is clean of second (or more) mentions, the longer event windows out to 10 and 20 days are not. However, the results we report are not qualitatively different from those based on sub-samples of 172 bullish and 272 bearish one-time only mentions, so we conclude that any subsequent mentions of a stock are not qualitatively altering the results.

Table V documents consistent evidence of abnormal stock movements both in the days before and after a *Lightning Round* mention. Market-model adjusted returns of 0.41% over the [0,+1] event window are significant at the 1% level. CRSP index-adjusted returns are 0.70% over that same window and significant at the 0.1% level, as is the 0.83% performance measured relative to the stocks' recent period means. Abnormal or adjusted returns over the [0,+1] and [0,+2] windows are almost identical, indicating that the bulk of the effect is on the two event days 0 and +1. Not surprisingly, the significant event window [0,+1] average raw return of 1.07% in the rightmost columns of Table V is higher than all of the average adjusted returns. That these returns are all positive suggests that investors may be acting on the bullish sentiments offered about these stocks by purchasing shares in the day or two following their discussion in the *Lightning Round.*

Interestingly, event windows encompassing the three and five day intervals preceding and including the *Lightning Round* mentions also show significant abnormal returns. For the [-2,0] and [-4,0] windows respectively, market-model adjusted returns are 0.40% (significant at 1%) and 0.35% (significant at 5%), CRSP index-adjusted returns are 0.83% and 1.00% with both significant at 0.1%, and returns adjusted by the stocks' estimation period means are 1.03% and 1.21%, also both significant at the 0.1% level. These findings are consistent with the idea that viewers call into the show about stocks that have been upwardly active in recent days and likely are seeking advice or interpretation regarding this activity. The average abnormal return on the single event day 0 is a prominent piece of each cumulative relative (and raw) return in the windows of interest both preceding and following the broadcast day.

Figures 1A through 1D depict cumulative returns over the [-10,20] window, from one day prior to our estimation period to twenty days beyond the event day 0 broadcast date. Figure 1A, 1B, and 1C show abnormal returns relative to the market model, CRSP value-weighted index, and stocks' estimation period means, respectively, while raw returns are in Figure 1D. Figures 1B, 1C, and 1D all reflect the general upward movement of the stock market during the time period from which our *Lightning Round* sample was taken. That the market model-adjusted returns trend downward in Figure 1A is likely a byproduct of the volatile market during the first nine months of 2005 which roughly coincides with the period during which the β parameter is estimated. This suggests that the best measures to reference for interpretation are those relative to the CRSP value-weighted index as an effective proxy for the market indices. The S&P500 rose by 7.385% (as measured by SPiDeRs) between 10/17/2005 and 12/23/2005, while the CRSP index return during that same time period was 7.73%.

The sum of the evidence in Table V and the cumulative return plots suggest that viewers who call the *Mad Money* show during its *Lightning Round* segment ask about stocks whose price has moved for some reason within the recent past. There is significant pre-event abnormal return relative to the CRSP index in the week leading up to event day 0 that is not all attributed to event day 0. Further, they do not seem to act very forcefully on the bullish mentions they hear and so do not create the conditions for an exploitable trading strategy for other investors. To the contrary, while the post-event index abnormal return on event day +1 is significant, it is small (+0.27%), and most of the return over event window [0,+1] is on event day 0, which is the day the show airs in the east after market hours. Longer horizon post-event holding periods extending ten and twenty days beyond the broadcast dates show no significant excess return over the CRSP index.

B. Bearish Mentions

Our examination of *Lightning Round* bearish sentiments is summarized in Table VI and Figures 2A, 2B, 2C, and 2D. Average abnormal and raw returns and generalized sign z-statistics are reported for the same event days and event windows as before. With these stocks as well, the cumulative return plots reflect the generally upward movement of the stock market over our sample period. An examination of the abnormal returns on event day +1 and over the [0,+1] and [0,+2] event windows indicates even less evidence of on-average investor reaction to bearish mentions on the show than we observe within the bullish sample. Only the cumulative event period abnormal returns relative to the market model -- -0.48% and -0.72% over the [0,+1] and [0,+2] windows, respectively -- are significant, and the significant single event day +1 abnormal return is -0.27%. Many of the abnormal returns produced with the other specifications are expectedly negative but lack significance.

Any number of reasons might explain the slight difference in the reactions' evidence between the bullish and bearish stocks. Investors could call about stocks they are thinking of buying but do not own, and so a bearish sentiment does not move them to act. Investors who call about stocks they do own may suffer from loss regret and resist selling despite the advice they seek out and receive from the TV show. Viewers may also be unmoved by the rationale presented for the bearish sentiment, although that reluctance may also be colored to some extent by loss regret. Or perhaps it is more simply explained by the fact that a bullish sentiment has appeal and can prompt action for all viewers, whereas a bearish sentiment has meaning only to those who already hold the stock or have ideas about buying it.

In contrast to our bullish sentiment findings, there is little suggestion that investors are calling the show about stocks which have recently declined. Cumulative average abnormal returns over the [-4,0] and more compact [-2,0] event windows preceding the broadcast event date 0 are negative relative to the market model and positive relative to the CRSP index, and lack significance in both cases. However, mean-adjusted and raw returns are significant over those intervals. Returns relative to the stocks' estimation period means are 0.42% and 0.29%, both significant at the 5% level. Raw returns significant at the 1% level are 0.81% and 0.53% for the two event periods, respectively. The average mean-adjusted (0.31%) and raw returns (0.39%) for event day -1 are highly significant as well. This significance of the stocks' own measures without significance of the market-based metrics suggests that investors' phone inquiries are prompted by a perceived shift in the stocks' recent performance without regard to whether this activity is a systematic move due to the general trend of the market. This contrasts with the bullish sentiment stocks, for which the pre-event window abnormal returns are significant when adjusted for both stock-specific and index measures, suggesting that the price moves are either market-related, firm-specific, or both.

Conclusion

In this study, we follow up our earlier work with *Mad Money* stock recommendations originated by Jim Cramer to analyze the bullish and bearish sentiments offered on stocks during the *Lightning Round* segment of the program while viewers call in about stocks in which they are interested. We find slight evidence of market reaction due to investors acting on the bullish sentiments but no evidence that they act on the bearish mentions other than the significant excess returns relative to the CRSP index over the longer-horizon [1,+20] post-event window. More interestingly, we detect that viewers on average tend to call the show about stocks which have experienced recent price moves. Our results suggest that these movements could be market-related or stock-specific for the bullish mentions but that investors do not distinguish market from firm-specific price changes among the stocks which receive bearish mentions. These last two facts are not altogether surprising, though, given that "50% of the calls come from college kids" (Jim Cramer, on *Imus in the Morning*, February 6, 2007).

Table I. Descriptive Statistics for "Mad Money Lightning Round" Stock Mentions: 10/17/2005 to 12/23/2005

	Total	Bullish Sentiment	Bearish Sentiment
Total # of Different Companies	711	809	530
Companies with One Mention	447	174	273
Companies with Multiple Mentions	264	635	257
Companies with Minimum 40 Days Estimation Period Returns and at Least 4 Days Between a 1st and 2nd Mention	669	315	354
Average β		1.21	1.27
Average Market Capitalization on 10th Trading Day Prior to Mention		\$14.917B	\$9.135B
Minimum Market Capitalization		\$167.92M	\$121.92M
Maximum Market Capitalization		\$261.75B	\$371.12B

Table II. Bullish or Bearish Sentiment Consistency among Companies with Multiple "Lightning Round" Mentions over the 10/17 to 12/23/2005 Sample Period

	Total	Consistent Sentiment	1 Change in Sentiment	2 Changes in Sentiment	> 2 Changes in Sentiment
Companies with Multiple Lightning Round Mentions	264	192 (72.7%)	60	7	5
with 2 Mentions	127	99 (77.9%)	28		
with 3 Mentions	56	37 (66.1%)	15	4	
with 4 Mentions	26	16 (61.5%)	8	2	
with 5 Mentions	24	16 (66.7%)	5		3
with 6 Mentions	11	6 (54.5%)	4		1
with More than 6 Mentions	20	18 (90.0%)		1	1

Table III. Lightning Round Stock Mentions by *Mad Money* Air Date and Sentiment

Show Date	Bullish Sentiment	Bearish Sentiment
2005 10 17	13	17
2005 10 18	9	10
2005 10 19	20	9
2005 10 20	9	17
2005 10 21	11	7
2005 10 24	14 – 1 = 13	9
2005 10 25	4	10
2005 10 26	3	9
2005 10 27	9 – 1 = 8	5
2005 10 28	7	16
2005 10 31	8	17
2005 11 01	3	8
2005 11 02	9	8
2005 11 03	11	3
2005 11 04	10	8
2005 11 07	3	4
2005 11 08	1	11
2005 11 09	6	12
2005 11 10	11	8
2005 11 11	14	7
2005 11 14	7	5-1 = 4
2005 11 15	6	3
2005 11 16	6	9
2005 11 17	8	7
2005 11 18	9	8
2005 11 21	6 – 1 = 5	11 – 1 = 10
2005 11 22	2	7
2005 11 23	5	7
2005 11 28	5	8 – 1 = 7
2005 11 29	5	4
2005 11 30	2	6
2005 12 01	4	6
2005 12 02	4	4
2005 12 05	6	10
2005 12 06	4	2
2005 12 07	2	9
2005 12 08	7	9
2005 12 09	7	5
2005 12 12	3	5
2005 12 13	3	5
2005 12 14	10	2
2005 12 15	5	3
2005 12 16	8	7 – 1 = 6
2005 12 19	2	2
2005 12 20	4	12
2005 12 21	3	3
2005 12 22	5	1
2005 12 23	5	3
Total	318 – 3 = 315	358 – 4 = 354

Table IV. Industry Descriptive Statistics for Sample of N = 315 Bullish and N = 354 Bearish Lightning Round Sentiments

		Bullish			Bearish	
		Total	% of Total		Total	% of Total
SIC Code	Description					
0000	Forestry, Fishing	0	0%		1	0.3%
1000	Mining	29	9.2%		25	7.1%
2000	Construction	43	13.7%		66	18.6%
3000	Manufacturing	86	27.3%		100	28.2%
4000	Transportation	24	7.6%		41	11.6%
5000	Retail Trade	45	14.3%		37	10.5%
6000	Finance, Insurance	42	13.3%		26	7.3%
7000	Services	31	9.8%		49	13.8%
8000	Services	15	4.8%		9	2.5%
9000	Public Admin.	0	0%		0	0%
Total		315	100%		354	100%

Table V. Event Study Analysis on Bullish Recommendations. (*, **, and * indicate significance of the Patel Z-score or Generalized Sign Test at the .05, .01, and .001 levels, respectively. N = 315 is a sample of all first mentions of a stock during a *Lightning Round*.)**

	Market Model-Adjusted Abnormal Returns		CRSP Value Weighted Index-Adjusted Abnormal Returns		Mean-Adjusted Abnormal Returns		Raw Returns	
	Average Return	Percent Positive	Average Return	Percent Positive	Average Return	Percent Positive	Average Return	Percent Positive
Event Day(s)								
-10	0.22%**	54.6%**	0.32%**	56.2%**	0.17%	52.7%	0.29%**	56.2%*
-1	0.01%	46.0%	0.10%	47.3%	0.13%*	51.4%	0.25%**	54.6%
0	0.22%**	53.7%*	0.43%***	57.8%**	0.60%***	58.1%***	0.72%***	61.9%***
+1	0.19%	50.8%	0.27%*	51.7%	0.23%*	52.4%	0.35%**	54.3%
(-4,0)	0.35%*	54.9%**	1.00%***	58.1%**	1.21%***	64.1%***	1.81%***	66.7%***
(-2,0)	0.40%**	53.0%*	0.83%***	55.9%*	1.03%***	61.3%***	1.39%***	61.9%***
(0,+1)	0.41%**	52.7%*	0.70%***	58.1%**	0.83%***	57.8%***	1.07%***	62.2%***
(0,+2)	0.30%*	53.0%*	0.68%***	55.6%*	0.84%***	59.4%***	1.21%***	62.9%***
(1,+10)	-0.57%*	46.0%	0.60%	54.6%*	1.19%***	56.5%**	2.39%***	65.1%***
(1,+20)	-1.48%***	45.1%	0.80%	54.0%	1.60%***	62.9%***	4.01%***	73.0%***

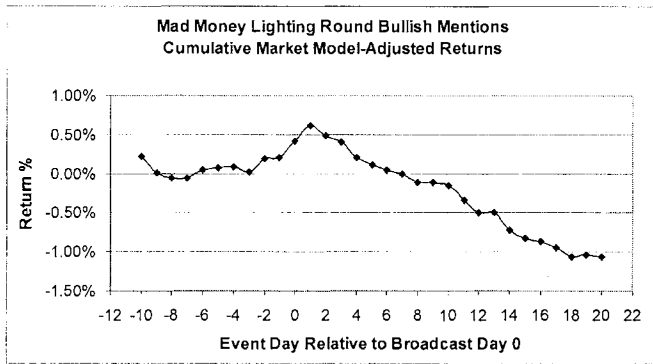
Table VI. Event Study Analysis on Bearish Recommendations. (*, **, and * indicate significance of the Patel Z-score or Generalized Sign Test at the .05, .01,**

	Market Model-Adjusted Abnormal Returns		**CRSP Value Weighted Index-Adjusted Abnormal Returns**		**Mean-Adjusted Abnormal Returns**		**Raw Returns**	
	Average Return	**Percent Positive**	**Average Return**	**Percent Positive**	**Average Return**	**Percent Positive**	**Average Return**	**Percent Positive**
Event Day(s)								
-10	0.02%	49.4%	0.10%	50.0%	0.05%	52.8%*	0.12%	53.5%
-1	0.11%	51.7%	0.17%	50.3%	0.31%**	54.0%*	0.39%***	56.0%**
0	-0.21%	44.4%	-0.07%	46.9%	0.03%	52.0%	0.11%	52.0%
+1	-0.27%*	42.3%*	-0.16%	44.3%	-0.06%	48.3%	0.02%	48.6%
(-4,0)	-0.29%	48.6%	0.10%	50.0%	0.42%*	55.4%**	0.81%**	58.5%***
(-2,0)	-0.23%	48.3%	0.03%	48.9%	0.29%*	52.3%	0.53%**	56.2%**
(0,+1)	-0.48%**	43.5%	-0.24%	45.8%	-0.03%	51.4%	0.13%	53.4%*
(0,+2)	-0.72%**	44.3%	-0.39%	46.7%	0.00%	52.8%*	0.23%*	55.4%**
(1,+10)	-0.28%	48.0%	0.62%	54.5%*	1.75%***	63.3%***	2.53%***	64.7%***
(1,+20)	-0.35%	50.3%	1.21%*	55.4%**	2.91%***	65.0%***	4.45%***	70.9%***

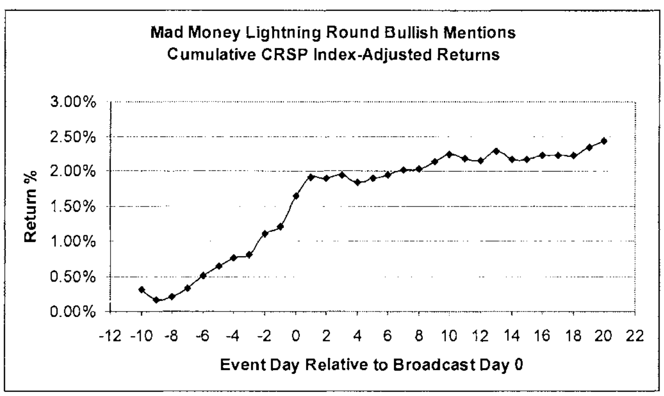
and .001 levels, respectively. N = 354 is a sample of all first mentions of a stock during a *Lightning Round*.)

Figure 1. Cumulative Return Plots for N = 315 "Mad Money Lightning Round" Bullish Mentions, 10/17/2005 to 12/23/2005

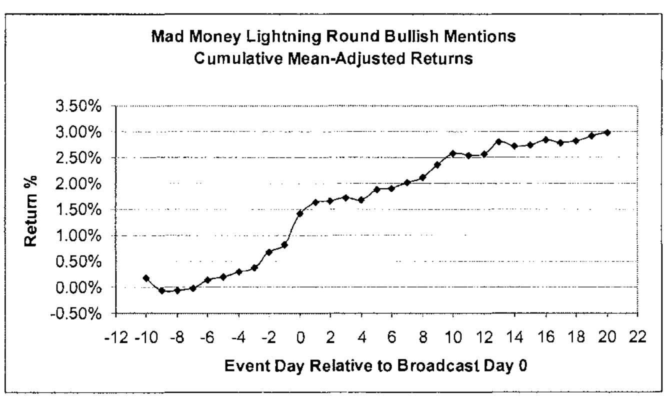
A. Abnormal Returns in Excess of Market Model Expectation.



B. Abnormal Returns in Excess of CRSP Value-Weighted Index



C. Abnormal Returns in Excess of Estimation Period Stock Means



D. Raw Returns

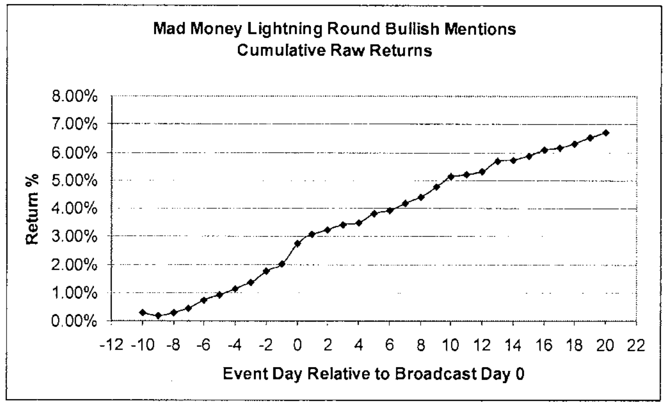
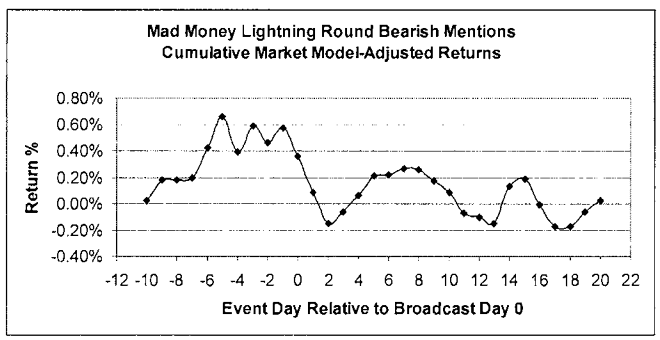
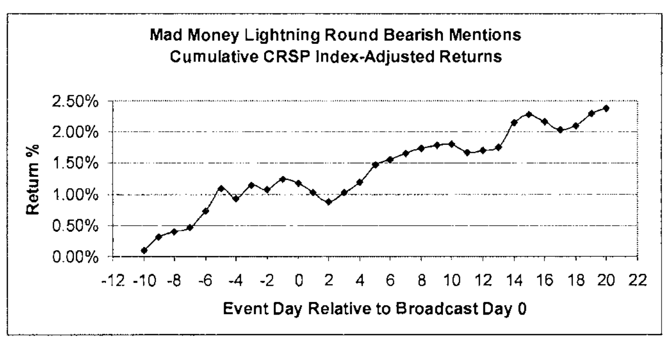


Figure 2. Cumulative Return Plots for N = 354 "Mad Money Lightning Round" Bearish Mentions, 10/17/2005 to 12/23/2005

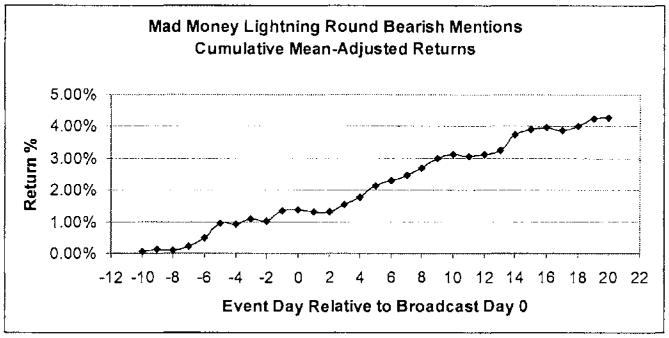
A. Abnormal Returns in Excess of Market Model Expectation



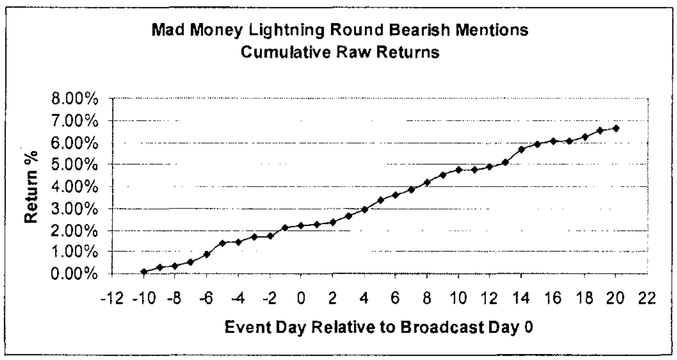
B. Abnormal Returns in Excess of the CRSP Value-Weighted Index



C. Abnormal Returns in Excess of Estimation Period Stock Means



D. Raw Returns



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