Reassessing the Returns to Analysts' Stock Recommendations

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After a string of years in which security analysts' top stock picks significantly outperformed their pans, the years 2000 and 2001 were disasters. During those two years, the stocks least favored by analysts earned an average annualized market-adjusted return of 13.44 percent whereas the stocks most highly recommended underperformed the market by 7.06 percent, a return difference of more than 20 percentage points. This pattern prevailed during most months of 2000 and 2001 and was observed for both technology and nontechnology stocks. Additional analysis suggests that these poor results were driven, at least in part, by analysts' tendency to recommend small-capitalization growth stocks during those years, despite the fall of those stocks from favor. Whether or not this preference was motivated by a desire to attract and retain the most lucrative investment banking clients, our findings should add to the debate over the usefulness of analyst stock recommendations. They should also serve to alert researchers to the possibility that excluding 2000 and 2001 from their sample periods could have a significant impact on any conclusions they draw about analyst stock recommendations.

Many segments of the investment community have grown increasingly suspicious in recent years of the value of U.S. sell-side analysts' stock recommendations. With the investment banking business booming during the late 1990s and early 2000, the belief spread that these analysts were focused on attracting and retaining clients rather than on writing research reports that accurately reflected their opinions of the companies they were following.[1] Adding to this belief was the disclosure of internal Merrill Lynch & Company e-mails from this period that strongly suggest that fundamentally weak Internet stocks were touted by some of Merrill's sell-side analysts. As a consequence, "buy" and "strong buy" recommendations have apparently become less meaningful to many investors. "Sell" and "strong sell" recommendations have become quite scarce.

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To shed light on the extent to which analyst stock recommendations continue to have value to investors, we analyzed the returns to their buy and sell recommendations during the 1996–2001 period.

Analyst Performance

Previously, for the 1986–96 period, a time during which the impact of investment banking on analysts' research reports was arguably less of a concern, Barber, Lehavy, McNichols, and Trueman (2001, hereafter BLMT) found U.S. sell-side analysts' stock recommendations to have significant value. Specifically, BLMT documented that stocks with more favorable consensus (average) recommendations outperformed those with less favorable recommendations. A portfolio composed of the most highly recommended stocks, for example, generated an average annual market-adjusted return (mean raw return less the return on a value-weighted market index) of 3.97 percent, whereas a portfolio of the least favored stocks yielded an average annual market-adjusted return of –9.06 percent, a difference of more than 13 percentage points (pps).[2] For the years 1996–1999, we found market-adjusted returns that were similar in nature to those for the earlier period (the negative return on the

least favored stocks was, in fact, larger than previously documented).

The returns for the years 2000–2001, however, are strikingly different. This divergence is illustrated by **Table 1**, in which the annual market-adjusted returns to the most highly and least favored stocks for the 1986–2001 period are plotted.[3] In all years *but* 2000 and 2001, the most highly favored stocks outperformed the least favored stocks; in 2000 and 2001, the reverse was true. The market-adjusted return on the most favorably rated stocks in 2000 and again in 2001 was about –7 percent, which represents the lowest yearly return for this portfolio during the entire 16-year period. In contrast, the market-adjusted return on the least favored stocks was a quite large 17.6 percent in 2000 and 9.3 percent in 2001, the highest annual market-adjusted returns earned by these stocks for the entire period. The difference between the returns to the highest-rated and lowest-rated stocks, almost –25 pps in 2000 and about –16 pps in 2001, reflects very poor years for analysts' recommendations.

Table 1. Annualized Market-Adjusted Returns to Portfolios Formed on the Basis of Consensus Analyst Recommendations, 1986–2001

Year	Most Favored Stocks	Least Favored Stocks
1986	–0.9%	–3.7%
1987	6.3	–10.9
1988	–1.1	–3.1
1989	–0.9	–18.4
1990	8.5	–15.3
1991	15.5	1.2
1992	3.6	–2.1
1993	2.1	–10.0
1994	0.2	–4.6
1995	2.7	–14.2
1996	5.3	–18.7
1997	–5.2	–21.7
1998	–2.5	–22.9
1999	19.6	–41.5
2000	–7.1	17.6
2001	–7.0	9.3

In additional analyses, we found that these poor returns were in evidence for most months of 2000 and 2001. They were more pronounced for technology companies (the strongest segment of the market leading into 2000) than for nontechnology companies. Perhaps most surprising is that the least favored tech stocks actually rose in the 2000–01 period, at a time when the sector as a whole was suffering sharp declines. (This last finding should be viewed with some caution, however, given the relative scarcity of sell recommendations for technology companies in our sample.)

To gain insight into possible causes of analysts' poor performance during 2000–2001, we calculated each portfolio's abnormal returns after we controlled for the return expected on the portfolio given the beta, size, ratio of book value to market value (BV/MV), and price momentum of each of its component stocks. Similar to the conclusion reached for market-adjusted returns, we found that in the 1996–99 period, the most highly recommended stocks earned a higher average annual abnormal return than did the least favored stocks. In contrast to the market-adjusted return results, however, the highest-rated stocks continued to earn higher average abnormal returns during the 2000–01 period (although the return difference was not reliably different from zero).

Key to understanding these divergent results and what they tell us about the analysts' poor market-adjusted performance is the additional finding that during both time periods, the most highly recommended stocks were generally small, with low BV/MVs (so-called growth stocks) and the least favored stocks, although also small, had high BV/MVs (so-called value stocks). This difference is noteworthy because during the 1996–99 period, small-cap growth stocks vastly outperformed small-cap value stocks but during 2000–2001, value stocks trounced growth stocks.[4] Although analysts' highest-rated stocks outperformed the typical small-cap growth company and their lowest-rated stocks underperformed the typical small-cap value company in 2000–2001, their continuing tendency to recommend the small-cap growth segment that by then had fallen out of favor resulted in their picks underperforming their pans during this period.

Data and Research Design

The source of the analyst recommendations used in this study is First Call Corporation, which obtains its data from hundreds of brokerage houses. Two types of recommendations are recorded in the First Call database—real time and batch. Real-time recommendations come from live feeds and provide the date and time when the report was published. (The majority of recommendations received by First Call are now real-time recommendations.) Batch reports are generated from a weekly batch file sent by the brokerage houses. For these recommendations, the precise date of publication is unknown. To ensure the accuracy of the dates used to measure

investment returns, we included only real-time recommendations in our analysis.

Each database record contains the name of the company covered, the brokerage house issuing the report, and a rating between 1 and 5. A rating of 1 reflects a strong buy recommendation; 2, a buy; 3, a hold; 4, a sell; and 5, a strong sell. This five-point scale is commonly used by analysts. If an analyst uses a different scale, First Call converts the analyst's rating to its five-point scale. The recommendations used in this study encompass the period from January 1996 (the First Call database has few real-time recommendations before that time) through December 2001.

Table 2 provides descriptive statistics for the First Call database.[5] For the entire 1996–2001 period, the database recorded more than 228,000 real-time recommendations made by 353 brokerage houses covering 9,941 distinct companies.[6] The annual number of real-time recommendations, number of covered companies, and number of brokerage companies contributing recommendations—all increased during this period (although the number of covered companies dropped off in 2001).[7] Analysts became more positive during 1999 and 2000, as reflected in the decreasing average analyst rating, the increasing fraction of buy or strong buy recommendations, and the decreasing fraction of sell or strong sell recommendations. Analysts were clearly reluctant to issue sell recommendations during 1999–2000. This trend reversed somewhat in 2001. Whether the decrease in analyst optimism was partly a result of the weak stock market or of increased regulatory scrutiny of analysts' activity (or both) is an open question.

To determine whether more highly recommended stocks earned greater returns than less favorably recommended ones, we constructed calendar-time portfolios based on the consensus rating of each covered company.[8] The consensus rating, $\bar{A}_{i,\tau-1}$, for company i on date $\tau - 1$ was found by taking the simple average of the individual outstanding recommendations on that day (prior to the 4:00 p.m. Eastern time market close). Using these average ratings, we placed each covered company into one of five portfolios as of the close of trading on date $\tau - 1$ as follows:

- Portfolio 1: $1 \leq \bar{A}_{i,\tau-1} \leq 1.5$ (the most highly recommended stocks);
- Portfolio 2: $1.5 < \bar{A}_{i,\tau-1} \leq 2$;
- Portfolio 3: $2 < \bar{A}_{i,\tau-1} \leq 2.5$;
- Portfolio 4: $2.5 < \bar{A}_{i,\tau-1} \leq 3$;
- Portfolio 5: $\bar{A}_{i,\tau-1} > 3$ (the least favored stocks).

After determining the composition of each portfolio, p, as of the close of trading on date $\tau - 1$, we calculated the portfolio's value-weighted return on date τ, denoted by $R_{p\tau}$.[9] For each month, t, in our sample period, the daily return was compounded to yield a monthly return, R_{pt}. We then calculated monthly market-adjusted returns for each of our constructed portfolios by subtracting the month t return on the CRSP NYSE/Amex/Nasdaq value-weighted market index from the portfolio's monthly return.

By rebalancing the five portfolios only at the *close* of trading each day, we explicitly excluded from our monthly market-adjusted return calculations the first-day return to analysts' recommendations. Because investors are generally unable to act on analysts' recommendations before they are made public, this procedure captures the return investors would actually be able to earn on the recommendations. Later in the next section, we examine the effect on our results of including these first-day returns.

Table 2. Descriptive Statistics for Analyst Stock Recommendations, 1996–2001

					Recommendation Frequency					
					Strong Buy/Buy		Hold		Sell/Strong Sell	
Year	No. of Recommendations	No. of Companies	No. of Brokerage Houses	Average Rating	*N*	Percent of Total	*N*	Percent of Total	*N*	Percent of Total
1996	22,409	5,480	170	2.04	14,607	65.2%	7,007	31.3%	795	3.5%
1997	29,647	6,390	193	2.02	19,684	66.4	8,929	30.1	1,034	3.5
1998	42,321	6,783	219	2.05	28,100	66.4	12,754	30.1	1,467	3.5
1999	43,248	6,806	207	2.00	30,322	70.1	11,728	27.1	1,198	2.8
2000	41,965	6,666	226	1.97	30,239	72.1	11,037	26.3	689	1.6
2001	48,449	5,786	233	2.18	30,080	62.1	16,615	34.3	1,754	3.6
Overall	228,039	9,941	353	2.05	153,032	67.1%	68,070	29.9%	6,937	3.0%

Portfolio Returns

The monthly average market-adjusted returns to each of our five portfolios are presented in **Table 3**. For the 1996–2001 sample period as a whole, no pattern is discernible from the highest-rated stocks (Portfolio 1) to the middle-ranked stocks (Portfolio 3). Moreover, although the average return on Portfolio 1 exceeded that of Portfolio 5, the difference is not reliably greater than zero. On the one hand, these results are in contrast to those of BLMT for the 1986–96 period; BLMT found a strictly monotonic decrease in mean market-adjusted returns from the more highly to the less highly recommended stocks. On the other hand, BLMT found a monthly return spread between the highest-rated stocks and the lowest-rated ones of 1.02 pps—almost identical to that for the 1996–2001 period.[10]

The market-adjusted return pattern for 1996–1999 provides strong evidence of analyst ability during this subperiod. Similar to the BLMT findings, a strictly monotonic decrease occurs in market-adjusted returns from Portfolio 1 to Portfolio 5. Furthermore, in each of the individual years but one (1998), either Portfolio 1 or Portfolio 2 had the highest market-adjusted return whereas Portfolio 5 had the lowest (although most returns were generally insignificantly different from zero). Additionally, for 1996–1999, the average difference between the extreme portfolios was a significant 2.35 pps a month.

In contrast, the market-adjusted returns for the 2000–01 period *increase* monotonically from Portfolio 1 to Portfolio 5. The difference between the returns of the highest-rated and lowest-rated stocks, although not reliably greater than zero, is an economically large –1.69 pps a month. Sell-side analysts' stock recommendations clearly performed extremely poorly in 2000–2001.

The poor performance of analysts' stock recommendations in 2000–2001 was not restricted to only a few months during those years or to only periods in which the market was declining; it was widespread. As reported in **Table 4**, for seven months in 2000 and eight months in 2001, the least favorably rated stocks had higher market-adjusted returns than the most highly recommended stocks. These included four months during which the market, as measured by the CRSP value-weighted index, rose. The largest monthly difference was 21.64 pps in November 2000.

Table 3. Monthly Average Market-Adjusted Returns to Portfolios Formed on the Basis of Analyst Recommendations, 1996–2001
(*t*-statistics in parentheses)

		Percentage Monthly Average Market-Adjusted Return								
		By Period			By Year					
Portfolio	Daily Average No. of Companies	1996–2001	1996–99	2000–01	1996	1997	1998	1999	2000	2001
P1 (most favorable)	1,108	0.06	0.33	–0.50	0.38	–0.32	–0.05	1.32	–0.43	–0.57
		(0.17)	(1.16)	(–0.63)	(1.18)	(–0.92)	(–0.08)	(1.57)	(–0.29)	(–1.00)
P2	1,482	0.08	0.26	–0.29	0.22	0.17	0.19	0.46	–0.33	–0.26
		(0.61)	(1.93)	(–1.25)	(1.19)	(0.73)	(0.57)	(1.40)	(–1.04)	(–0.72)
P3	965	0.05	–0.25	0.65	–0.53	0.12	0.21	–0.79	1.14	0.16
		(0.21)	(–1.58)	(0.94)	(–2.96)*	(0.62)	(0.74)	(–1.79)	(0.87)	(0.31)
P4	652	0.03	–0.51	1.10	–0.04	–0.13	–0.83	–1.05	1.22	0.99
		(0.07)	(–1.36)	(1.33)	(–0.11)	(–0.28)	(–1.09)	(–0.88)	(0.81)	(1.32)
P5 (least favorable)	60	–0.95	–2.01	1.18	–1.38	–1.58	–1.73	–3.36	1.59	0.78
		(–1.65)	(–4.27)*	(0.87)	(–1.80)	(–2.22)*	(–2.02)*	(–2.55)*	(0.66)	(0.58)
Difference: P1 – P5 (pps)	1,168	1.00	2.35	–1.69	1.76	1.27	1.68	4.67	–2.03	–1.35
		(1.38)	(3.76)*	(–1.00)	(1.83)	(1.39)	(1.50)	(2.72)*	(–0.66)	(–0.84)

Note: Each *t*-statistic pertains to the null hypothesis that the associated return is zero.
*Significant at the 10 percent level or better.

Table 4. Monthly Market-Adjusted Returns to Portfolios in 2000 and 2001

Month	P1 (most favored)	P5 (least favored)	Difference: P1 – P5
A. 2000			
January	2.22%	4.37%	–2.15 pps
February	11.23	10.14	1.09
March	–5.12	–4.37	–0.75
April	–1.78	–8.67	6.89
May	–4.23	7.73	–11.96
June	3.43	–10.31	13.74
July	–0.44	–2.51	2.06
August	5.23	–6.94	12.17
September	–0.29	5.00	–5.29
October	–3.64	11.48	–15.12
November	–7.17	14.47	–21.64
December	–4.61	–1.27	–3.34
B. 2001			
January	0.79%	0.96%	–0.16 pps
February	–2.62	7.37	–9.99
March	–2.15	5.74	–7.88
April	3.35	–3.18	6.53
May	0.51	–4.41	4.92
June	0.86	4.54	–3.68
July	–3.41	–0.45	–2.95
August	–1.24	6.67	–7.91
September	–3.03	–2.87	–0.16
October	–0.09	–6.44	6.35
November	–0.48	–1.62	1.14
December	0.63	3.02	–2.39

That analysts' poor performance was present as early as January 2000 greatly diminishes the possibility that it can be attributed to the imposition of Regulation FD (Fair Disclosure) prohibiting companies from revealing material nonpublic information to analysts. Regulation FD was not imposed until October 2000. Even if Regulation FD reduced the value of analyst recommendations overall, there is no reason to expect that the buy recommendations would do *worse* than the sell recommendations.

Tech vs. Nontech. We further divided the sample stocks into tech and nontech companies and calculated market-adjusted returns during 2000–2001 for each subsample.[11] The results are presented in **Table 5**. Similar to the sample as a whole, the highest-rated tech stocks underperformed the lowest-rated tech stocks; the same holds for the nontech stocks. The magnitude of the return difference, however, was larger for the tech stocks, which was the market sector that experienced the largest price run-up in 1999 and early 2000 and a steep decline thereafter. But given the small number of stocks in Portfolio 5 for each set of companies (a daily average of 8 for the technology stocks and 52 for the nontechnology stocks) and given that neither return difference was significantly different from zero, these findings must be interpreted with some caution.[12]

Table 5. Monthly Market-Adjusted Returns to Technology and Nontechnology Portfolios, 2000–01
(*t*-statistics in parentheses)

Portfolio	Nontech	Tech
P1 (most favored)	–0.10%	–0.28%
	(–0.22)	(–0.13)
P2	0.62	–1.94
	(1.00)	(–1.00)
P3	1.00	–1.03
	(0.98)	(–0.56)
P4	1.34	–0.47
	(1.38)	(–0.22)
P5 (least favored)	0.72	1.74
	(0.47)	(0.38)
Difference: P1 – P5	–0.81 pps	–2.02 pps
	(–0.55)	(–0.50)

Adding First-Day Returns. As mentioned, the results presented thus far excluded the first-day returns to analysts' stock recommendations, under the presumption that investors generally cannot act on the recommendations before they are made public. It could be argued, however, that the return on the first day is part of the overall return to these recommendations and should be included when analysts are judged. In addition, some large clients might receive advance knowledge of analysts' recommendations and be able to earn the first-day returns. Thus, we repeated our analysis to include the first-day returns.

For the full 1996–2001 period, untabulated results show a monotonic decline in market-adjusted returns from the most highly favored to the least favored stocks. The difference between the returns on Portfolios 1 and 5 increased to nearly 2 pps a month and was now significantly different from zero. For the years 1996–1999, there continued to be a strictly monotonic decrease in returns from Portfolio 1 to Portfolio 5, with the difference between the returns on these two portfolios increasing to a reliably positive 3.24 pps a month. The poor 2000–01 returns were also similar in nature to those already presented. The market-adjusted return no longer strictly monotonically increased from the highest-rated to the lowest-rated stocks, but the difference between the returns

on the two extreme portfolios remained negative, although not reliably so.

Abnormal Returns. To gain insight into possible causes for the sharp decline in the value of analyst recommendations, we extended our analysis by calculating the average abnormal return for each portfolio after controlling for the return expected on the portfolio given the beta, size, BV/MV, and price momentum of each of its component stocks. We estimated the monthly average abnormal return as the intercept from the following monthly time-series regression (a four-factor model):

$$RP_{pt} = \alpha_p + \beta_p RPM_t + s_p SMB_t + h_p HML_t + w_p WML_t + \varepsilon_{pt},$$

where

RP_{pt} = excess return on portfolio p during month t (defined as the value-weighted return on portfolio p in month t less the risk-free rate that month)

RPM_t = market risk premium; excess return on the market during month t (defined as the return on the CRSP NYSE/Amex/Nasdaq value-weighted market index in month t less the corresponding risk-free rate)

SMB_t = difference between the month t returns of a value-weighted portfolio of small-cap stocks and one of large-cap (big-cap) stocks

HML_t = difference between the month t returns of a value-weighted portfolio of high-BV/MV stocks and one of low-BV/MV stocks[13]

WML_t = difference between the month t returns of an equally weighted portfolio of past stock market winners and a portfolio of past losers;[14] that is, past stock market winners (losers) were defined as those companies with the highest (lowest) 30 percent return over the 11 months through month $t - 2$

ε_{pt} = regression error term

In addition to providing an estimate of the monthly abnormal return on portfolio p, α_p, this regression yielded the coefficient estimates β_p, s_p, h_p, and w_p. These estimates provide insights into the nature of the companies in each portfolio. A value of β_p greater (less) than 1.0 means that the companies in portfolio p were, on average, riskier (less risky) than the market. A value of s_p greater (less) than 0 signifies a portfolio tilted toward smaller (larger) companies. A value of h_p greater (less) than 0 indicates a tilt toward stocks with a higher (lower) BV/MV, which are conventionally thought of as value (growth) stocks. Finally, a value of w_p greater (less) than 0 signifies a portfolio composed of, on average, stocks that have performed well (poorly) in the recent past.

The results of running these regressions on Portfolios 1 and 5 are presented in **Table 6**. For the 1996–99 period (Panel A), the average betas of both portfolios (the coefficient on *RPM*) are close to 1.0, the positive coefficients on *SMB* indicate that both portfolios were tilted toward small-cap stocks, the negative coefficient on *HML* for Portfolio 1 reveals a tendency of analysts to recommend growth stocks during this period, and the positive coefficient for Portfolio 5 reveals a tendency to pan value stocks. The positive intercept for Portfolio 1 indicates that the analysts' most highly recommended stocks earned positive (although insignificant) abnormal returns, after controlling for the return expected on each stock, given its beta, size, BV/MV, and price momentum. The negative and significant intercept for Portfolio 5 implies that these stocks earned reliably negative abnormal returns. Consistent with the findings for the market-adjusted returns, these test results in Panel A show that the most highly recommended stocks significantly outperformed the least favored ones during 1996–1999.

The results are similar, albeit less pronounced, for the 2000–01 period. Again, the most favorably recommended stocks tended to be small-cap growth stocks and the least favored were more likely to be small-cap value stocks. Additionally, consistent with BLMT and the 1996–99 findings, the abnormal return on Portfolio 1 was positive whereas that on Portfolio 5 was negative (although neither return is reliably different from zero). The difference between these two returns is economically large (three-quarters of a percentage point a month) but is also not reliably different from zero.

These findings, taken together with the market-adjusted return results, suggest that a possible explanation for analysts' poor performance during 2000–2001 was their continued tendency to recommend small-cap growth stocks and spurn small-cap value stocks. That behavior paid off well during the 1996–99 period, when the Russell 2000 Growth Index rose 180 percent and the Russell 2000 Value Index rose only 80 percent, but failed miserably during 2000–2001, when the growth index fell 55 percent and the value index dropped only 18 percent.[15] Although analysts' recommendations slightly outperformed the average small-cap growth stock and their pans underperformed the average small-cap value stock, the fact that value

Table 6. Coefficient Estimates for the Four-Factor Model: Portfolios 1 and 5 (*t*-statistics in parentheses)

Portfolio	Intercept	*RPM*	*SMB*	*HML*	*WML*
A. Results for 1996–99					
1 (most favored)	0.06	1.08	0.15	–0.23	0.06
	(0.24)	(1.23)	(2.10)*	(–2.42)*	(1.07)
5 (least favored)	–1.50	0.95	0.26	0.49	–0.06
	(–3.27)*	(–0.46)	(1.95)	(2.80)*	(–0.63)
Difference: P1 – P5	1.55	0.13	–0.11	–0.72	0.12
	(2.85)*	(0.94)	(–0.70)	(–3.41)*	(1.01)
B. Results for 2000–01					
1 (most favored)	0.02	1.11	0.21	–0.24	0.03
	(0.03)	(0.90)	(1.89)	(–1.59)	(0.92)
5 (least favored)	–0.74	0.50	0.47	0.42	–0.04
	–(0.51)	(1.69)	(1.74)	(1.13)	(–0.47)
Difference: P1 – P5	0.76	0.61	–0.27	–0.66	0.08
	(0.48)	(1.86)	(–0.90)	(–1.61)	(0.77)

Note: Each *t*-statistic pertains to the null hypothesis that the associated coefficient is 0, except for the *t*-statistics on the coefficient estimate for *RPM*, for which the null hypothesis is that the coefficient is 1.0.
*Significant at the 10 percent level or better.

dramatically beat growth during this period resulted in the highest-rated stocks trailing the lowest-rated ones.

A question that cannot be answered by this analysis is whether the reluctance of analysts to turn away from small-cap growth stocks stemmed from a desire to attract and retain these potentially more lucrative investment banking clients or from a failure to appreciate the extent to which small-cap growth stocks fell out of favor during 2000–2001.

Conclusions

We analyzed the returns to analysts' stock recommendations for the 1996–2001 period—a time of increasing doubt as to the value of these recommendations. We showed that the more highly recommended stocks earned greater market-adjusted returns during the 1996–99 period than did the less highly favored stocks. We also showed that the opposite was true for 2000 and 2001. The poor returns of the most favored stocks prevailed during most months of 2000 and 2001, while the market was rising and while it was falling, and characterized both tech and nontech stocks. We found evidence consistent with the possibility that this reversal was a result of analysts' reluctance to turn away from small-cap growth stocks during this period, a time when such stocks significantly underperformed the market.

Even with their poor performance in 2000–2001, for the longer (16-year) 1986–2001 period, the most highly recommended stocks still generated significantly greater average annual market-adjusted returns than did those least favored (2.44 percent as compared with –9.94 percent). These relative returns reflect favorably on the long-term value of analyst recommendations, as long as the 2000–01 results are simply an aberration that is unlikely to be repeated. If, however, this recent performance reflects an inability or reluctance on the part of analysts to adapt to changing market conditions (such as might be the case if analysts continue to favor small-cap growth firms over small-cap value firms because of their potentially greater investment banking business), then analyst performance for the whole period will not be a reliable predictor of future returns to analyst picks. Only time will tell.

These results should help inform the debate over the usefulness of analyst stock recommendations. Additionally, our results should alert researchers to the possibility that excluding the years 2000–2001 from their sample periods could have a significant impact on any conclusions they draw regarding analyst stock recommendations.

Notes

1. See "'Incredible Buys'" (1995), "The Fall of the Net Analyst" (2000), "Tech's Cheerleader Won't Say Die" (2001), and "Requiem for an Honorable Profession" (2002). The effect of investment banking relationships on analysts' stock recommendations has been studied empirically by Dugar and Nathan (1995), Lin and McNichols (1998), and Michaely and Womack (1999).
2. Other papers examining the investment performance of analyst stock recommendations are Barber and Loeffler (1993), Bidwell (1977), Diefenbach (1972), Dimson and Marsh (1984), Groth, Lewellen, Schlarbaum, and Lease (1979), Stickel (1995), and Womack (1996). Copeland and Mayers (1982) studied the investment performance of the *Value Line Investment Survey*, and Desai and Jain (1995) analyzed the return from following *Barron's* annual roundtable recommendations.
3. For this comparison, we used the (untabulated) market-adjusted returns from BLMT for the years 1986–1995 together with the market-adjusted returns calculated here for 1996–2001.
4. In the 1996–99 period, the Russell 2000 Value Index, for example, lagged the Russell 2000 Growth Index by about 100 pps. In the 2000–01 period, the value index beat the growth index by about 37 pps.
5. The descriptive statistics presented here for the years 1996–2000 differ somewhat from those reported in a previous version of our paper because of changes recently made by First Call in the compilation of data.
6. These totals exclude recommendations for companies without CUSIP numbers in the First Call database (a necessary input to obtain return data).
7. The reduction in number of covered companies in 2001 probably stems, in part, from a 9 percent decrease in the combined number of companies listed on the NYSE, Amex, and Nasdaq that year. It is also consistent with that year's steep market decline and evidence in McNichols and O'Brien (1997) that analysts tend to drop coverage of companies that they expect to do poorly (rather than retain them and issue negative comments).
8. The research design for our analysis closely followed that of BLMT; it is described only in brief here.
9. The value-weighted return for portfolio p on date τ was calculated by multiplying the date τ return of each component stock by the stock's share of the total portfolio market value as of the close of trading on date $\tau - 1$. The daily security returns were value weighted rather than equally weighted because an equal weighting (and the implicit assumption of daily rebalancing) leads to portfolio returns that are severely overstated. (For more details, see Barber and Lyon 1997, Blume and Stambaugh 1983, Canina, Michaely, Thaler, and Womack 1998, and Lyon, Barber, and Tsai 1999.) A value weighting also better captures the economic significance of our results because the returns of the larger companies are more heavily represented in the aggregate return than are those of the smaller companies.
10. The lack of statistical significance for the years 1996–2001 is likely a consequence of there being fewer observations during this shorter time period.
11. We used the industry classifications provided by I/B/E/S International to divide the sample.
12. Further analysis of the composition of Portfolio 5 revealed that the subsample results were not driven by only a few companies with large positive returns.
13. Construction of size and BV/MV portfolios is discussed in detail in Fama and French (1993). We thank Kenneth French for providing us with these data.
14. This measure of price momentum was used by, among others, Carhart (1997).
15. By touting small-cap growth companies, analysts may have actually helped fuel the sharp increase in these companies' stock prices in the late 1990s.

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