

Would a stock by any other ticker smell as sweet?

Alex Head, Gary Smith*, Julia Wilson

Department of Economics, Pomona College, Claremont, CA 91711, United States

Received 13 December 2006; received in revised form 15 February 2007; accepted 20 March 2007

Available online 25 September 2007

Abstract

Some stocks have meaningful ticker symbols; for example, LUV (Southwest Airlines), MOO (United Stockyards), and GEEK (Internet America). Such tickers might be a useful signal of the company's creativity, a memorable marker that appeals to investors, or a warning that the company feels it must resort to gimmicks to attract investors. This paper investigates the performance of stocks with memorable ticker symbols during the years 1984–2005 and finds that, on average, their daily returns are higher than for the overall market.

© 2007 The Board of Trustees of the University of Illinois. Published by Elsevier B.V. All rights reserved.

JEL classification: G11; G14

Keywords: Ticker symbols; Efficient market; Behavioral finance

To facilitate trading, stocks are identified by ticker symbols (so-called because trading used to be reported on ticker tape machines). Because the original intention was to speed up the transmission of trading reports, actively traded stocks were given single-letter ticker symbols; for example, the Atchison, Topeka, and Santa Fe (A) and American Telephone and Telegraph (T).

Today, New York Stock Exchange (NYSE) stocks have one to three letters plus additional characters that can be used to identify the type of security; for example, Citigroup (C), General Electric (GE), and Berkshire class A (BRK.A). NASDAQ stocks have four or five letters with the fifth letter often used to identify the type of security; for example, Microsoft (MSFT), Intel (INTC), and Advanta class B (ADVNB). As in these examples, ticker symbols are usually abbreviations of a company's name, and companies sometimes become known by these abbreviations: GE, IBM, 3M.

Companies choose their ticker symbols, though the exchanges can reject a choice that is offensive, misleading, or duplicates another company's symbol. In practice, the company's choice

* Corresponding author. Tel.: +1 909 607 3135; fax: +1 909 621 8576.

E-mail address: gsmith@pomona.edu (G. Smith).

is almost always honored. One notable exception was Furr's/Bishop's Inc., which applied for the symbol FBI, but was rejected because this is the well-known acronym for the Federal Bureau of Investigation.

In recent years, several companies have shunned the traditional name-abbreviation convention and chosen ticker symbols that are related to what the company does. Some are memorable for their cheeky cleverness; for example, Southwest Airlines' choice of LUV as a ticker symbol was related to its efforts to brand itself as an airline "built on love." Southwest is based at Dallas' Love Field and has an open-seating policy that reportedly can lead to romance between strangers who sit next to each other. Its on-board snacks were originally called "love bites" and its drinks "love potions," and a Southwest spokesman boasted about the number of romances begun on board: "At times, we feel that we are the love brokers of the sky" (Herskovitz, 2004).

The efficient market hypothesis assumes that a stock's market price incorporates all publicly available information and implies that investors cannot use public information to beat the market consistently. Those who beat the market are lucky, not skillful. A stock's ticker symbol is no secret and it would be surprising if a stock's performance were related to its ticker symbol. Surely, savvy investors focus on a company's cash flow, not its ticker symbol!

1. Misinformed investors

However, not all investors are savvy. After Charles Lindbergh's 1927 flight from New York to Paris, there was a surge in the price of airline stocks including Seaboard Air Line Railroad, even though Seaboard was a railroad whose name "Air Line" referred to its long stretches of straight track (Allen, 1931; Bishop, 2003).

Rashes (2001) found that investors are not always well-informed about ticker symbols. Two completely different firms, Massmutual Corporate Investors (traded on the NYSE with the ticker symbol MCI) and MCI Communications (traded on the NASDAQ with the ticker symbol MCIC), exhibited strong comovements in their prices, apparently because investors who wanted to invest in MCI Communications mistakenly bought Massmutual stock.

Rashes briefly cites other examples of ticker-symbol mistakes. Transcontinental Realty Investors (TCI) was evidently confused with Tele-Communications Inc., causing significant comovements in price when there was news regarding the takeover of Tele-Communications by BellAtlantic and later AT&T. Castle Convertible Fund, a closed-end mutual fund with the ticker symbol CVF, briefly fell 32% after the Financial Times published a report of impending losses for the Czech Value Fund, which it abbreviated in the text as CVF. A 1998 Barron's article was bullish on the Morgan Stanley Asia Pacific Fund, but the ticker symbol was misprinted as APB, rather than APF. The ticker symbol APB belongs to the Barings Asia Pacific Fund, which opened up 30% the first trading day after the Barron's article appeared. More than 15% of Barings' outstanding shares were traded that day as misinformed investors and arbitrageurs bought and sold the stock.

In 1999, AppNet Systems filed for an IPO under the ticker symbol APPN, which was currently being used by Appian Technology. In the 2 days following the filing (when it was not yet possible to trade AppNet stock), 7.3 million shares of Appian Technology stock were traded (compared to 200 shares the day before AppNet's IPO filing) and the price increased by 142,757% (Ewing, 1999). During the initial public offering of Ticketmaster Online-CitySearch using the ticker symbol TCMS, shares of Temco Service Industries, whose ticker symbol was TCMO and had previously been TCMS, rose from \$28.875 to \$65 before investors realized their mistake and the price plunged to \$25.50 (Fisher, 1998). When Amazon.com had an IPO in 1997 using the ticker symbol AMZN,

stock in a company called Amazon Natural Treasures which had been using the ticker symbol AMZN before Amazon went public (and switched to AZNT afterward) rose from \$1 a share to \$3 and then fell back to \$1 after investors realized their mistake (CBS.MarketWatch.Com, 1999).

2. Why might tickers matter?

Our research question is not whether investors are confused by ticker symbols, but whether stocks with clever ticker symbols tend to do better or worse than other stocks—in either case, a challenge to the efficient market hypothesis. For our purposes, a clever ticker symbol is not simply an abbreviation of a company's name that turns out to be a pronounceable word; for example BEAR (Bear Automotive Service Equipment). A ticker symbol is clever if it is related to the company's business in a witty and ingenious way that makes the symbol memorable for investors; for example, MOO (United Stockyards) and GEEK (Internet America). Because cleverness is in the eye of the beholder, a survey is used to identify ticker symbols that people consider to be clever.

A priori, a clever symbol might be a useful signal of a clever company. Philip Fisher (1958) argued that investors should look beyond the balance sheets and try to identify an able company by talking to a company's employees and competitors. Similarly, legendary money manager Peter Lynch (Lynch & Rothchild, 1994) purchased one firm's stock based on the CEO's impressive display of knowledge about company details. Perhaps a clever ticker symbol is an indicator that a firm's managers are clever and creative, with a sense of humor.

On the other hand, wary investors may interpret a clever symbol as a silly marketing ploy by a company that feels it must resort to gimmicks to attract investor attention. Perhaps a clever symbol is a signal of desperation rather than intelligence.

Another theoretical possibility is related to the idea that human judgments are shaped by how easily information is processed and remembered (Higgins, 1996; Pennington & Hastie, 1988; Tversky & Kahneman, 1973; Wyer & Srull, 1989). Cognitive psychologists use the word *fluency* to encompass the processing of stimuli and memory recall. Many studies have shown that stimuli that are processed fluently are viewed more positively. For example, Reber, Winkielman, and Schwarz (1998) found that objects shown for longer periods of time or with greater background contrast increased fluency and caused the objects to be rated more favorably.

Processing fluency also affects our judgment of a statement's accuracy (Begg, Anas, & Farinacci, 1992). Reber and Schwartz (1999) found that statements ("Osorno is in Chile") were more likely to be judged true if written in colors that were easier to read. Hasher, Goldstein, and Toppino (1977) found that repetition increased fluency and made people more likely to believe unsubstantiated statements ("Divorce is found only in technically advanced societies"). McGlone and Tofighbakhsh (2000) found that aphorisms that rhyme (for example, "Woes unite foes" versus "Woes unite enemies") are more likely to be judged true.

These arguments suggest that ticker symbols that are easily processed and recalled might be rated favorably. For example, an investor might be looking at pet-related companies and come across VCA Antech, which operates a network of animal hospitals and diagnostic laboratories. A ticker symbol VCAA might pass unnoticed. But the actual ticker symbol, WOOF, is much more memorable. Perhaps a few days, weeks, or months later, this investor decides to invest in a pet-related company and remembers the symbol WOOF.

Similarly, a recent study by Alter and Oppenheimer (2006) found that IPOs with pronounceable ticker symbols did better on their first trading day than did IPOs with disfluent tickers. If stocks with pronounceable ticker symbols do well, so might stocks with memorably clever symbols.

3. Methods

To minimize survivor bias, the Center for Research in Security Prices (CRSP) database was used to identify approximately 33,000 ticker symbols for past and present companies. Two people independently looked at every symbol in this database for ticker symbols that might be considered noteworthy. Ninety-three percent of their selections coincided. The two lists were merged and the paper's authors looked at each company's line of business to gauge whether the ticker symbol was either intentionally clever or simply an abbreviation of the company's name. Examples of the former are GEEK (Internet America, an internet service provider), GRRR (Lion Country Safari, a safari park), and BOOM (Explosive Fabricators, which uses explosives to perform metallurgical bonding). Examples of the latter are BEAR (Bear Automotive Service Equipment), CARD (Cardinal Bankshares), and GLAD (Gladstone Capital). We further restricted our study to stocks that were traded sometime since 1984, because clever ticker symbols have only recently become popular.

We distributed 100 surveys with our culled list of 358 ticker symbols, the company names, a brief description of each company's business, and the following instructions:

Stocks are traded using ticker symbols. Some are simply the company's name (GM, IBM); some are recognizable abbreviations of the company's name (MSFT for Microsoft, CSCO for Cisco); and some are unpronounceable abbreviations (BZH for Beazer Homes, PXG for Phoenix Footwear Group). Some companies choose symbols that are cleverly related to the company's business; for example, a company making soccer equipment might choose GOAL; an Internet dating service might choose LOVE.

From the attached list of ticker symbols, please select 25 that are the cleverest, cutest, and most memorable.

We intentionally excluded seasoned investment professionals whose choices might have been influenced by the investment performance of the companies on the list. We received 22 responses. Table 1 shows the 82 stocks that received more than two votes.

For each trading day from the beginning of 1984 to the end of 2005, we calculated the daily return for an equally weighted portfolio consisting of those clever-ticker stocks with daily returns in the CRSP database. As time passed, some clever-ticker stocks stopped trading for a variety of reasons (including bankruptcy, merger, buyout) and other clever-ticker stocks entered the CRSP database. The clever-ticker portfolio began in 1984 with 17 stocks and averaged 25 stocks over this period, with a low of 17 and high of 34 stocks.

The comparison portfolio consisted of the stocks in the NASDAQ/NYSE portfolio constructed by CRSP. This portfolio also has had additions and deletions over time as stocks enter and leave the index. Capital gains taxes and transaction costs were ignored for both the clever-ticker portfolio and CRSP's NASDAQ/NYSE portfolio.

4. Results

A matched-pair *t*-test was used to gauge the statistical significance of the observed daily differences between the returns on the clever-ticker portfolio and the NASDAQ/NYSE portfolio. The null hypothesis is that the expected value of the daily difference is zero: $H_0: \mu = 0$. The

Table 1

Tickers with more than two votes (votes in parentheses)

GEEK (13)	Internet America	Internet service provider
MOO (12)	United Stockyards	Livestock company
BEER (9)	Big Rock Brewery	Brewery
DNA (9)	Genentech	Gene research
QPON (9)	Seven Oaks International	Retail-coupon processor
SPUD (9)	1 Potato 2	Quick-service potatoes restaurant
ACES (8)	American Vantage Cos	Leisure activities, including casino gaming
OUCH (8)	Occupational-Urgent Care	Health-care network
GRRR (7)	Lion Country Safari	Safari park
WOOF (7)	VCA Antech	Veterinary services
BUD (6)	Anheuser Busch	Makes Budwesier beer
CASH (6)	Comdata Network	ATM networks
CASH (5)	First Midwest Financial	Banking
JACK (6)	Golden Bear Golf	Golf (Jack Nicklaus nicknamed Golden Bear)
JAVA (6)	Mr. Coffee	Coffee-making machines
UEAT (6)	Restaurant Hotline Systems	Restaurant reviews
ZAPS (6)	Cooper Lifesciences	Laser and ultrasonic medical devices
BABY (5)	Fertility and Genetics Resh	Fertility research
BABY (5)	Natus Medical	Medical products for babies
BEEP (5)	Roadrunner Enterprises	Trucking company
BOOM (5)	Explosive Fabricators	Explosives to perform metallurgical bonding
KDNY (5)	Home Intensive Care	Dialysis services
MPH (5)	Championship Auto Racing Team	Car racing team
ODDS (5)	Sport of Kings	Casino
PUFF (5)	Grand Havana Enterprises	Private membership cigar clubs
SLOT (5)	Anchor Gaming	Gaming machines, operations, and systems
VINO (5)	Wine Inc	Wine
WHOA (5)	American Equine Product	Horse-related products
BID (4)	Sotheby's Holdings	Auctions
BLMP (4)	Airship International, Ltd.	Blimps
BUNZ (4)	Schlotzky's	Deli restaurant chain
CHIC (4)	Charlotte Russe Holding	Teeny-bopper clothing
FUN (4)	Cedar Fair L P	Amusement parks
HIFI (4)	Cambridge Soundworks	Sound systems
NUTS (4)	Nutrition World	Vitamins and supplements
RUBB (4)	Great American Backrub Store	Stress relief products
SIZL (4)	Galveston Steakhouse Corp	steakhouse restaurants
TINY (4)	Harris & Harris Group	Venture capital in tiny technology
BOOK (3)	Village Green Bookstore	Bookstore
BREW (3)	Rock Bottom Restaurants	Brewery and restaurant chain
BTU (3)	Peabody Energy Corp	Coal
BTU (3)	Pyro Energy Corp	Energy
BYTE (3)	Compucom Systems	Computers
CAKE (3)	Charlotte Charles	Specialty foods and food-gift packages
CAKE (3)	Cheescake Factory	Restaurant and dessert chain
CHAI (3)	Life Medical Sciences	Medical products
COW (3)	United Stockyards	Cattle stockyards
DICE (3)	Crown Casino Corp	Gambling
DIET (3)	American Health Companies	Helps people with dieting
EYE (3)	VISX	Eyecare and eyewear
EYE (3)	Benson Eyecare Group	Eyecare and eyewear
EYE (3)	Coopervision	Eyecare and eyewear
EYE (3)	Sterling Optical Corp	Eyecare and eyewear

Table 1 (Continued)

FUNN (3)	Mountasia Entertainment Intl	Entertainment company
FUNN (3)	Pizza Entertainment Centers	Pizza and entertainment
GAIT (3)	Langen Biomechanics Group	Orthotics products company
GAME (3)	Casino America	Casinos
GRIN (3)	Grand Toys International	Toy manufacturer
GRR (3)	Asia Tigers Fund	Closed-end investment company
HOPE (3)	Allied Nursing Care	Provides end-of-life care
IDEA (3)	Innovasive Devices	Devices for sports medicine surgery
IQ (3)	Ideon Group	Intellectual property
JAIL (3)	Adtec Detention Systems	Detention and security related equipment
JOB (3)	General Employment Entrepreneurs	Employment
LENS (3)	Concord Camera Corporation	Cameras
LENS (3)	Jones Optical Co	Glasses and contact lens retailer
LUCK (3)	Lady Luck Gaming Corp	Casinos
LUV (3)	Southwest Airlines	Low-fare airline
OIL (3)	Triton Energy Corp	Oil and gas company
PNUT (3)	Jimbo's Jumbos	Raw, roasted, salted and Cajun peanuts
POPS (3)	National Beverage Corp	Beverages
PORK (3)	Sooner State Farms	Hog raising
RAYS (3)	Sunglass Hut International	Sells sunglasses
ROCK (3)	Gibraltar Industries	Metal processing (Rock of Gibraltar)
ROOM (3)	Hospitality Worldwide Services	Renovation package for hospitality industry
ROOM (3)	Hotel Reservations Network	Online hotel room bookings
SMIFF (3)	American Sensors	Smoke alarms
TUTR (3)	Plato Learning	Computer and Web-based instruction
TUX (3)	After 6	Formal-wear company
YUM (3)	Tricon Global Restaurants	Quick-service restaurants
YUMY (3)	Tofruzen	Food products
ZYME (3)	Synthetech	Organic synthesis technologies

t -statistic is

$$t = \frac{\bar{X} - 0}{s/\sqrt{n}}$$

where \bar{X} is the mean of the daily differences, s is the standard deviation of the daily differences, and n equals 5552, the number of trading days during this period. We report the two-sided p -value because, as explained earlier, we cannot *a priori* rule out the possibility that the clever-ticker portfolio will do better or worse than the market.

Table 2 shows the mean and standard deviation of the daily returns for the clever-ticker portfolio and for the NASDAQ/NYSE portfolio. As shown, the observed difference in average daily returns is statistically persuasive and very substantial. (Over 250 trading days, daily returns of 0.000918 and 0.000499 imply respective annual returns of 25.8% and 13.3%.)

Table 2
Daily returns, 1984–2005

Clever-ticker portfolio		NASDAQ/NYSE portfolio		Difference			
Mean	Standard deviation	Mean	Standard deviation	Mean	Standard deviation	t -value	Two-sided p -value
0.000918	0.01269	0.000499	0.009788	0.000419	0.011739	2.660	0.0079

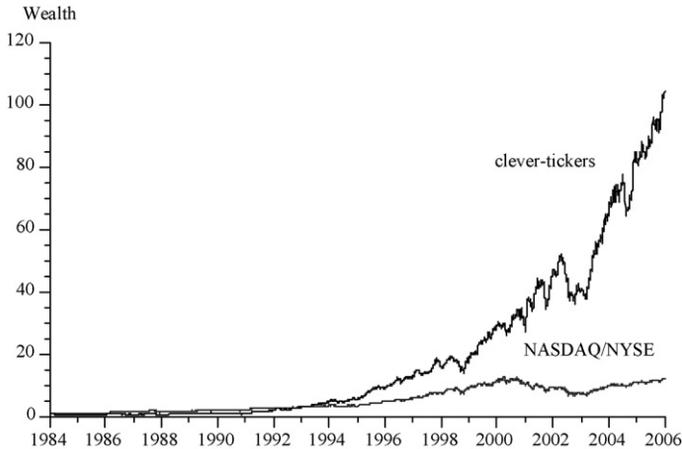


Fig. 1. Clever-ticker portfolio and NASDAQ/NYSE portfolio.



Fig. 2. Clever-ticker portfolio relative to NASDAQ/NYSE portfolio.

Figs. 1 and 2 compare the performance of the clever-ticker portfolio and the NASDAQ/NYSE portfolio, with the value of each portfolio normalized to equal 1 on the first trading day. The clever-ticker portfolio lagged behind slightly until 1993, and then spurted ahead over the next decade. Overall, the compounded annual returns were 23.5% for the clever-ticker portfolio and 12.0% for the NASDAQ/NYSE portfolio.

5. Discussion

One possible explanation for our results is that the clever-ticker stocks were concentrated in an industry that happened to do very well over this period. The descriptions provided in Table 1 indicate that the clever-ticker companies are quite diverse. To investigate this more formally, we looked at the Standard Industrial Classification (SIC) codes used by the U.S. government and

Table 3
 Distributon of standard industrial classification (SIC) two-digit codes

SIC code	Description	Number of companies	Average daily return relative to market	
			Better	Worse
02	Agricultural production- livestock	2	1	1
07	Agricultural services	1	1	0
12	Coal mining	1	1	0
13	Oil and gas extraction	2	1	1
20	Food and kindred products	7	4	3
23	Chemicals and allied products	1	1	0
28	Chemicals and allied products	3	2	1
33	Primary metal industries	1	1	0
34	Fabricated metal products	2	1	1
35	Industrial machinery and equipment	1	1	0
36	Electrical and electronic equipment	6	5	1
38	Instruments and related products	6	3	3
42	Motor freight transportation and warehousing	1	1	0
45	Transportation by air	1	1	0
48	Communications	1	0	1
50	Wholesale trade—durable goods	2	1	1
51	Wholesale trade—nondurable goods	2	0	2
54	Food stores	1	1	0
56	Apparel and accessory stores	1	1	0
58	Eating and drinking places	8	4	4
59	Miscellaneous retail	4	4	0
60	Depository institutions	1	1	0
62	Security, commodity brokers, and services	1	1	0
65	Real estate	1	1	0
67	Holding and other investment offices	3	1	2
73	Business services	7	5	2
79	Amusement and recreational services	7	3	4
80	Health services	5	3	2
82	Educational services	1	1	0
87	Engineering and management services	2	2	0
Total		82	53	29

reported in the CRSP database. There are 81 major-group (two-digit) SIC codes. Our 82 clever-ticker companies span 31 of these groups, with the highest concentration being eight companies in Group 58 (eating and drinking places), of which four beat the market and four did not. The next highest concentrations were seven companies in Groups 20 (food and kindred products), 73 (business services), and 79 (amusement and recreational services) of which the number that beat the market were four, five, and three, respectively, Table 3 shows the complete distribution of two-digit SIC codes for our data.

Another possible explanation for our results is that they are distorted by the extraordinary performance of a small number of clever-ticker stocks. However, 53 of the 82 clever-ticker stocks (65%) had higher average daily returns than did the NASDAQ/NYSE index. If a clever-ticker stock were equally likely to do better or worse than the index, the binomial distribution tells us that there is only a 0.0053 probability that as many as 53 of 82 stocks would beat the market (a two-sided p -value of 0.011). Two clever-ticker stocks beat the market for the entire period: LUV

Table 4
Estimates of a four-factor model, *t*-values in parentheses

Mean excess return R	Alpha	MKT	SMB	HML	UMD	Adjusted R-squared
0.00073	0.00049 (3.45)	0.81 (39.52)	0.64 (22.96)	0.28 (7.48)	−0.10 (4.56)	0.29

and OIL (both with average daily returns of 0.008). Twelve clever-ticker stocks essentially went bust by losing more than 95% of their initial value; eight clever-ticker stocks did very well in part because of mergers.

A search of quarterly earnings announcements and news stories for the 53 clever-ticker stocks that beat the market found no evidence that their superior performance was due to extraordinary earnings surprises. The only unusual events that explained their superior performance were related to some stocks being acquisition targets.

Interestingly, those stocks that received the most votes in our survey – the most clearly clever – did better than the marginally clever. Of the 38 stocks that received three or more votes, 27 (71%) had higher average returns than the market (two-sided $p = 0.013$); of the 44 stocks that received only two votes, 26 (59%) beat the market (two-sided $p = 0.291$). The average daily return was 0.001063 for the 38 stocks that received more than two votes, and 0.000833 for the 44 stocks that received two votes.

Risk is another possible explanation for the observed difference in returns, but it is hard to imagine a degree of riskiness that would explain a 12% annual risk premium. The beta for the clever-ticker portfolio relative to the NASDAQ/NYSE is only 0.61, indicating that clever-ticker stocks actually have considerable potential to reduce systematic risk.

We also gauged risk with the Fama and French (1993) three-factor model augmented by a momentum factor (Carhart, 1997)

$$R = \alpha + \beta_1 \text{MKT} + \beta_2 \text{SMB} + \beta_3 \text{HML} + \beta_4 \text{UMD} + \varepsilon$$

where R: return on clever-ticker portfolio minus the return on Treasury bills, MKT: return on all NYSE, AMEX, and NASDAQ stocks (from CRSP) minus the return on Treasury bills, SMB: average return on three small portfolios minus the average return on three big portfolios (size factor), HML: the average return on two value portfolios minus the average return on two growth portfolios (book-to-market factor), UMD: average return on two high prior return portfolios minus the average return on two low prior return portfolios (momentum factor).

This specification reflects the historical evidence that there are macro factors that cause stock returns to be positively correlated; small stocks tend to outperform big stocks (Banz, 1981; Reinganum, 1981); value stocks with high book-to-market ratios tend to outperform growth stocks (Rosenberg, Reid, & Lanstein, 1985); and stocks that have been doing well tend to outperform those doing poorly (Jegadeesh & Titman, 1993). It is an unsettled whether these factors reflect risks that matter to investors (Fama & French, 1992) or are evidence of market inefficiencies (Lakonishok, Shliefel, & Vishny, 1994). Either way, the question here is whether the relatively strong performance of the clever-ticker portfolio can be explained by these four factors.

All of the factor data were taken from Ken French's web site (2007). Table 4 shows the results. The substantial and statistically significant alpha value shows that these four factors do not explain the strong performance of the clever-ticker portfolio. (Over 250 trading days, the annualized value of a 0.00049 daily excess return is 12.3%.) The coefficient of the market factor is less than 1 and the coefficients of the other three factors are highly statistically significant but relatively small.

The large excess return is difficult to reconcile with the efficient market hypothesis since it does not appear that the success of the clever-ticker portfolio can be attributed to the effects of the market, size, value, or momentum factors.

6. Conclusion

In recent years, a substantial number of companies have chosen clever ticker symbols. On average, these stocks have outperformed the market by a substantial and statistically persuasive margin. We do not know why these stocks have done so well. Perhaps a clever ticker symbol has been a useful indicator of the managers' ability—ability that revealed itself over time as the company repeatedly exceeded investors' expectations. Or perhaps a clever ticker matters because it is memorable and has a subtle, but persistent, influence on investors who buy the stock and on those who are considering a merger or acquisition. If the former explanation is correct, then the choice of a clever ticker symbol does not guarantee a stock's success; if ineptly managed companies begin choosing clever ticker symbols, the signal will become noise. If the latter explanation is correct, then perhaps companies can use a memorable ticker symbol to attract attention.

References

- Allen, F. L. (1931). *Only yesterday: An informal history of the 1920s*. New York: Harper & Brothers., 273.
- Alter, A. L., & Oppenheimer, D. M. (2006). Predicting short-term stock fluctuations by using processing fluency. *Proceedings of the National Academy of Sciences*, 103, 9369–9372.
- Banz, Rolf. (1981). The relationship between return and market value of common stocks. *Journal of Financial Economics*, 9, 3–18.
- Begg, I. M., Anas, A., & Farinacci, S. (1992). Dissociation of processes in belief: Source recollection, statement familiarity, and the illusion of truth. *Journal of Experimental Psychology: General*, 121, 446–458.
- Bishop, R. (2003). Lindbergh's influence on aviation. *Tar Heel Junior Historian*, 43, 1.
- Carhart, Mark M. (1997). On persistence in mutual fund performance. *Journal of Finance*, 52, 57–82.
- CBS.MarketWatch.Com. (1999). VERT-igo story causes queasiness for some investors. February 10, 1999, Retrieved March 13, 2007, from <http://www.marketwatch.com/News/Story/Story.aspx?guid={AD6B4E7B-E0CE-476D-8160-01A8BCBBFC54}&dist=bigcharts¶m=archive&siteid=bigcharts&garden=&minisite=>
- Chan, K. (1988). On the contrarian investment strategy. *Journal of Business*, 61, 147–163.
- Ewing, Terzah. (1999, April 1). Stock snafu hits traders on Internet. *The Wall Street Journal*, C1.
- Fama, E. F., & French, K. R. (1992). The cross-section of expected stock returns. *Journal of Finance*, 47, 427–465.
- Fama, E. F., & French, K. R. (1993). Common risk factors in the returns on bonds and stocks. *Journal of Financial Economics*, 33, 3–53.
- Fisher, Lawrence. (1998). *Initial offering of Ticketmaster rises four times opening price*. The New York Times. December 4.
- Fisher, Philip A. (1958). *Common Stocks and Uncommon Profits*. Hoboken, NJ: John Wiley & Sons, reprinted and updated 2003.
- French, Kenneth R. (2007). Data Library. Retrieved February 8, 2007, from http://mba.tuck.dartmouth.edu/pages/faculty/ken.french/data_library.html.
- Hasher, L., Goldstein, D., & Toppino, T. (1977). Frequency and the conference of referential validity. *Journal of Verbal Learning and Verbal Behavior*, 16, 107–112.
- Higgins, E. T. (1996). Knowledge activation: Accessibility, applicability, and salience. In E. T. Higgins & A. Kruglanski (Eds.), *Social psychology: Handbook of basic principles* (pp. 133–168). New York: Guilford.
- Herskovitz, J. (2004). Love is in the air: Southwest passengers find love in an empty seat, Reuters, July 7, 2004, Retrieved April 28, 2005, from <http://msnbc.msn.com/id/5444145>.
- Jegadeesh, N., & Titman, S. (1993). Returns to buying winners and selling losers: implications for stock market efficiency. *Journal of Finance*, 48, 65–91.
- Lakonishok, J., Shliefier, A., & Vishny, R. W. (1994). Contrarian investment, extrapolation, and risk. *Journal of Finance*, 49, 1541–1578.

- Lynch, Peter, & Rothchild, Jon. (1994). *Beating the Street*. New York, NY: Fireside.
- McGlone, M. S., & Tofighbakhsh, J. (2000). Birds of a feather flock conjointly (?): Rhyme as reason in aphorisms. *Psychological Science*, 11, 424–428.
- Pennington, N., & Hastie, R. (1988). Explanation-based decision making: Effects of memory structure on judgment. *Journal of Experimental Psychology: Learning, Memory, and Cognition*, 14, 521–533.
- Rashes, Michael. (2001). Massively confused investors making conspicuously ignorant choices. *The Journal of Finance*, 56, 1911–1927.
- Reber, R., & Schwartz, N. (1999). Effects of perceptual fluency on judgments of truth. *Consciousness and Cognition*, 8, 338–342.
- Reber, R., Winkielman, P., & Schwarz, N. (1998). Effects of perceptual fluency on affective judgments. *Psychological Science*, 9, 45–48.
- Reinganum, Marc. (1981). Misspecification of capital asset pricing: Empirical anomalies based on earnings' yields and market values. *Journal of Financial Economics*, 9, 19–46.
- Rosenberg, B., Reid, K., & Lanstein, R. (1985). Persuasive evidence of market inefficiency. *Journal of Portfolio Management*, 11, 9–17.
- Tversky, A., & Kahneman, D. (1973). Availability: A heuristic for judging frequency and probability. *Cognitive Psychology*, 5, 207–232.
- Wyer, R. S., Jr., & Srull, T. K. (1989). *Memory and cognition in its social context*. Hillsdale, NJ: Lawrence Erlbaum Associates, Inc.