Fundamental Value Investors: Characteristics and Performance

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Preliminary Work, Comments Welcome

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ABSTRACT

We examine novel data on the detailed investment decisions of professional value investors. We find evidence that value investors are not easily defined: they exploit traditional tangible asset valuation discrepancies such as buying high book-to-market stocks, but spend more time analyzing intrinsic value, growth measures, and special situation investments. We also test whether fundamental value investors outperform the market in our sample (January 2000 to June 2008). Analyzing buy-and-hold abnormal returns and calendar-time portfolio regressions, we conclude that value investors have stock picking skills.

JEL Classification: G10, G11, G14

Key words: Value investing, abnormal returns, hedge funds, market efficiency, Valueinvestorsclub.com, internet message boards.

This paper adds to the research on the issue of market efficiency. Instead of developing a quantitative trading rule that may or may not be implementable in the real world, or examining the returns of a broad cross-section of money managers who presumably have no skill on average, we analyze 2912 individual investment decisions of professional fundamental value investors, whose job is to discover inefficiently priced assets and determine if the costs of pursuing them (noise-trader risk, liquidity risk, distress risk, macro risks, trading costs, and so forth) are worth the benefits. We answer a simple question: do professional value investors have stock picking skills?

We present evidence that suggests value investors have stock picking skills on both the long and short side. Using buy-and-hold-return (BHAR) analysis, we find that abnormal returns for long positions are economically and statistically significant for one-year holding periods. Short positions generate even stronger abnormal returns over one-, two-, and three-year horizons. Calendar-time portfolio regressions show similar results. Alphas across various models and time periods are economically large and, for the most part, statistically significant.

We address another important question in this paper: how do real world value investors make investment decisions? The common assumption in academic work is that value investors are those who focus on high book-to-market stocks (e.g. Piotroski (2000)). And yet, Martin and Puthenpurackal (2008) show that Warren Buffett, widely known as the greatest value investor of all time, is a "growth" investor according to the Fama and French size and book-to-market classification scheme.

Real world value investors presumably drive asset prices to fundamental values (in contrast to technical traders or index investors). Studying the fundamental investor's thought process can help researchers understand why and how assets are priced empirically. Are these investors examining the correlation of their consumption habits with past return data to make their decision? Are they calculating CAPM, Fama-French, or momentum factor weightings? Or are they focused on identifiable processes such as business fundamentals, management signals, and the competitive landscape?

We find that, in our sample, value investors overwhelmingly focus on measures of intrinsic value: they examine valuation models based on discounted free cash flows, use

various earnings multiple measures, and often search for growth-at-a-reasonable-price (GARP) investments. These same investors spend much less time analyzing book to market or other tangible asset undervaluation measures. To a lesser extent, these investors favor the analysis of open market repurchases, net operating losses, spin-offs, turnarounds, and activist involvement. None of the investment thesis we analyze make use of statistical models of asset pricing in the academic literature.

The remainder of the paper is organized as follows. Section I discusses the related literature. Section II describes the data. Section III provides the main results on the characterization of value investor decisions. Section IV tests for skill amongst real world value investors. Section V discusses the results, and Section VI concludes.

I. Related Literature

Researchers have studied the performance of professional money managers extensively. There is an ongoing debate addressing whether or not practitioners have stock picking skills. In general, such work has supported the efficient market hypothesis, but the results are mixed.

Specifically, studies of mutual fund managers have found that mutual funds, on average, do not outperform their benchmarks (Carhart (1997), Malkiel (1995), Daniel et al. (1997)). However, other papers have found that there is predictive content in mutual funds' past excess returns for future excess returns (Carlson (1970), Lehman and Modest (1987), Grinblatt and Titman (1992), Hendricks et al. (1993), Goetzmann and Ibbotson (1994), Brown and Goetzmann (1995), Elton et al. (1996), Carhart (1997)). This finding suggests that although a broad cross-section of mutual fund managers fails to outperform, certain managers may have stock picking skill (Baks et al. (2001)). Using new statistical techniques, Kosowski et al. (2006) add to the debate and present evidence that some money managers can cover their costs and maintain persistent alphas.

Studies of individual money managers provide more evidence for market efficiency. Desai and Jain (1995) examine the performance of recommendations made by "superstar" money managers and find little evidence of superior stock picking skill. Barber et al. (2001) confirm this result and find that excess returns to the

recommendations of stock analysts are not reliably positive.

Professional investors (value investors tend to be the most outspoken) understandably resist the implication that, as a group, they are destined to fail in their attempts to outperform the market. This has led to harsh criticism of the efficient market hypothesis and sometimes a rebuke of academic finance generally. Charles Munger, the co-chairman of Berkshire Hathaway and lifelong partner of Warren Buffett, sumed up a familiar sentiment in a 2003 lecture at the University of California at Santa Barbara:

> "First, he [the academic] said Berkshire beat the market in common stock investing through one sigma of luck, because nobody could beat the market except by luck. This hard-form version of efficient market theory was taught in most schools of economics at the time. People were taught that nobody could beat the market. Next the professor went to two sigmas, and three sigmas, and four sigmas, and when he finally got to six sigmas of luck, people were laughing so hard he stopped doing it" (Munger (2003)).

Academics have attempted to address the concerns of Mr. Munger and the rest of the professional value investor community. Numerous studies have examined the performance of quantitative measures meant to capture the techniques used by practitioners—the evidence for anomalous market behavior is persuasive. For instance, Basu's (1977) study on Price-Earnings ratios, Banz' (1981) work on the size effect, Stattman (1980) and Rosenberg, Reid, and Lanstein's (1985) discovery of the book-to-market effect, and Fama and French's (1992) analysis of the intersection between size and value all imply the existence of empirically tested market-beating strategies. Other authors have analyzed more focused value strategies. Examples include the accrual anomaly (Sloan (1996)), balance sheet screens (Piotroski (2000) and Mohanram (2005)), open market repurchase strategies (Ikenberry, Lakonishok, and Vermaelen (1995)), and insider trading rules (Seyhun (1988)).

One problem with emulating value strategies through simple quantitative trading rules is that these emulation strategies can never fully incorporate the realities of the

marketplace. The limits to arbitrage and behavioral finance literature (see Barberis and Thaler (2003) for a survey of the literature) have highlighted some of the issues real-world investors must face. The work of these researchers suggests that human psychology (Kahneman and Tversky (1979)), institutional constraints (Shleifer and Vishney (1997)), and implementation costs (Pontiff (1996), Ackert and Tian (1998), and Wurgler and Zhuravskaya (2002)) keep market prices from reflecting proper values because they directly affect the professional investor's ability to profit.

Fama (1998) analyzes the various trading anomalies as a group. He shows that the anomalous results from the behavioral finance literature are conflicting in many cases and that the results can depend on the methodology employed. His conclusion is that market efficiency holds; our results suggest otherwise.

II. Data

A. *Value Investors Club*

The data in this study are collected from a private internet community called Valueinvestorsclub.com (VIC), proclaimed by the founders to be an "exclusive online investment club where top investors share their best ideas."[1] The site has been heralded in many business publications as a top-notch resource for anyone who can attain membership (*Financial Times, Barron's, Business Week, and Forbes* among others). The site was founded by Joel Greenblatt and John Petry, both successful value investors and managers of the large hedge fund Gotham Capital. It was created with $400,000 of start-up capital to be the site with "the best-quality ideas on the Web" (Barker (2001)). The investment ideas submitted on the club's site are broad, but are best described as fundamental value plays. The VIC site mentions that it is open to any well thought-out investment recommendation, but has a particular focus on equity or bond-based plays (either long or short), traditional asset undervaluation plays (high B/M, low P/E, liquidations, etc.), and investment ideas based on the notion of value as articulated by Warren Buffett (firms selling at a discount to their intrinsic value irrespective of common valuation ratios).

[1] http://www.valueinvestorsclub.com/Value2/Guests/Info.aspx

Membership in the club is capped at 250 and admittance to the club is based on an initial investment idea write up. If the quality of the research is satisfactory and the aspiring member is deemed a credible value investor and contributor to the club, he is admitted. Once admitted, members are required to submit two ideas per year with a maximum of six ideas a year (to ensure only their best ideas are submitted). Members can share comments with each other and rank each other's ideas on a scale of 1 (bad) to 10 (good). In addition, there is a weekly $5,000 prize awarded to the best idea submitted. Membership is continually monitored and those who fail to keep up with standards are thrown out.

The membership of VIC is highly confidential both to the public and within the club itself and all members post under aliases unrelated to their true identity. We have analyzed all of the VIC idea submissions since the club's founding (January 1, 2000) and have reconciled the information in the recommendations with contemporaneously filed 13-Ds, 13-Gs, and public statements to conclude that the membership of VIC primarily consists of value hedge fund managers, activist investors, and their associates. In addition, the authors have spoken to multiple professional investors and hedge fund managers to ascertain that VIC membership is exclusive and coveted by those in the industry. Our working assumption is that the investment ideas submitted to VIC are representative of professional value investors.

B. *Data Description*

We analyze all investment reports submitted to VIC since the club's founding on January 1, 2000 through June 30, 2008. In total we examine 2912 investment submissions. Reports length can range from a few hundred a few thousand words (see appendix for an example write-up). Investment ideas are wide ranging in respect to the asset traded, where the assets trade, and the complexity of the strategy employed.

For each investment report analyzed, we record various data: date and time of submission, symbol, price (at time of recommendation), market(s) traded, security(s) traded, strategy recommended (long, short, or long/short) and the "reasons for investing." All data collected are unambiguous except for the reasons for investing. We compile a list of sixteen criteria that are frequently cited in VIC submissions as a reason

for investing. Criteria were judged to be sufficiently common if at least 10 investment submissions acknowledged the use of the category. The sixteen categories are as follows: *lack of sell-side analyst coverage*, *tangible asset undervaluation* (high book-to-market, hidden real estate assets, etc.), *insider buying/selling*, *intrinsic value undervaluation* (discounted cash flow analysis, low P/E, EBIT/TEV, P/Sales, industry undervaluation, hidden growth opportunities, and so forth), *complicated business or taxes creating investor confusion*, *"sum-of-parts" discount*, *liquidation potential*, *active share repurchase programs*, *recent restructuring or spinoff situation*, *misunderstood net operating loss tax assets*, *merger arbitrage* (Mitchell and Pulvino (2001)), *stub arbitrage* (Mitchell, Pulvino, and Stafford (2002)), *activist involvement* (Boyson and Mooradian (2007)), *merger arbitrage trading opportunity*, *turnaround and/or bankruptcy emergence*, and *pair trade arbitrage* (Froot and Dabora (1999)).

With the sixteen categories established we analyze every idea and assign it to the appropriate categories. For example, the VIC submission cited in the appendix received four category labels: *tangible asset undervaluation*, *insider buying*, *intrinsic value undervaluation*, and *net operating loss tax assets*. By assigning investment submissions discrete criteria, we capture the essence of the why VIC members make their recommendations.

Next we gather fundamental data about the recommended securities to determine the nature of the securities on which value investors focus. These include SIC sector classification, book values, market value of equity, profitability measures, and price ratios (see Table 4).

Finally, we match the firms associated with a VIC recommendation to accounting and stock return data from CRSP/COMPUSTAT. For the purposes of this study, we only analyze traditional long and short investment recommendations and set aside all ideas that would be considered special situations (liquidations, pairs arbitrage, stub arbitrage, and merger arbitrages), long/short recommendations, non-equity plays, and foreign-traded/ADR recommendations. We believe that while the non-traditional VIC submissions would be interesting to analyze, they are difficult to understand, require esoteric knowledge in many cases, and are hard to assess with statistical asset pricing tools. Our final sample used to conduct long-term asset pricing tests includes 554 long

recommendations and 56 short recommendations between January 1, 2000 and December 31, 2005.

III. Results: The Characteristics of Fundamental Value Investor Decisions

Are value investors obsessed with book value? Do they dwell on E/P ratios? Do they incorporate open market repurchases, insider buying patterns, post earnings announcement drift, accruals, or other documented alpha producing strategies found in the academic literature? In this section we examine how fundamental value investors actually make investment decisions.

Using the full sample of recommendations (n=2912), we find that value investors focus on US based common stock investments (84% of total recommendations), but find value in other markets as well: 13% of the recommended investments are internationally traded and 4% are non-equity investments. We also find that long recommendations in common stock represent the bulk of ideas submitted (87%) (see Table 1, Panel B).

In Table 2 we present a summary of the criteria cited by VIC members as the basis for their recommendations.[2] We find that investors are overwhelmingly concerned with assessing intrinsic value. Discounted cash flow models, earnings multiples, GARP, and other similar valuation techniques are overwhelmingly used (87.50% include this analysis in their recommendation). Based on these results, professional value investors tend to be Warren Buffett-style growth investors; however, approximately 24% of value investors do incorporate the classic value technique of focusing on tangible asset undervaluation. The other favorite tools of value investors are open market repurchases (12.12%), the presence of net operating loss assets (5.29%), restructuring and spin-off situations (5.12%), and insider trading activity (4.70%).

VIC members sometimes cite more than one criteria in an investment analysis. Table 3, Panel A describes the frequency of various permutations of criteria cited. Panel A shows that although value investors are highly focused on intrinsic value, many cite additional criteria, indicating not all investors are one-dimensional. Some of the

[2] We analyze the full sample in this section, however, the characteristics of the sub-sample (n=610 (554 (longs)+56(short)) we use for the asset pricing tests are very similar.

most common criteria combinations paired intrinsic undervaluation with signaling factors such as share repurchase programs, insider buying, and activist involvement.

A surprising result from our analysis is the number of investors who referenced net operating loss assets as part of their investment thesis. We posit that net operating losses are typically complicated and associated with companies that have recently performed poorly and are hated by Wall Street. These two factors likely lead to attractive investment opportunities for professional investors that are unrecognized by the broader investment community.

Value investors use a wide range of tools in their investment decisions, however, it is surprising how few criteria value investors use in their analysis. Panel B of Table 3 shows that value investors typically employ up to three different criteria when making investment decisions. Ninety-eight percent of the recommendations cite three or fewer investment criteria, whereas only 2% cite four or more. We conjecture that limited resources and attention (Kahneman and Tversky (1973)), asset specific issues, overconfidence in one's investment approach, and skepticism of academic anomalies are the primary reasons why professional value investors focus on very few criteria when making investment decisions.

In Table 4 we present descriptive statistics of the securities recommended segregated by type of recommendation (long versus short). In Panel A we tabulate the sector classification. The recommendations are weighted heavily towards the manufacturing firms, representing 35.9% (40.7%) of the total of long (short) recommendations. Other sectors of focus for value investors are on services and financial services: services represent 16.4% (20.4%) and financial services comprise 14.8% (22.2%) of the long (short) recommendations. We conjecture that manufacturing firms are attractive to value investors because these firm's businesses are easier to understand and evaluate.

Panels C and D of Table 4 present a summary of the financial data pertaining to the recommended securities. Long investment recommendations are concentrated in small companies (with a slight tilt towards value) and short investment recommendations are concentrated in small-growth companies. The median market capitalization is $379 million ($510 million) for long (short) recommendations. The

median book-to-market ratio among long recommendations is 0.63, which suggests a slight tilt towards value based on average B/M breakpoints from 2000 to 2008. However, among short recommendations the median is much lower, 0.32, suggesting that when betting against a firm, value investor focus on securities that would be considered overvalued on a book-to-market basis. With respect to profitability, long recommended firms are generally more profitable than the firms that are short recommendations. Median return on assets is 5% for long recommendations and 4% for short recommendations.

IV. Results: Analysis of Value Investor Performance

In this section we examine the performance of the recommendations made by value investors. We calculate abnormal returns in both event time and calendar time because of the considerable debate in the literature about the preferable technique for determining long-run abnormal performance. We perform our calculations over horizons of one-, two- and three-years because these are the time horizons most commonly referenced in the VIC community member recommendations. As Barber and Lyon (1997) argue, traditional event-time buy-and-hold abnormal returns (BHAR) "precisely measure investor experience" of buy-and-hold investors, the contingent most common in the value investing community. However, Mitchell and Stafford (2000) find that this method fails to account for cross-sectional dependence among firm abnormal returns in event time. As such, we choose to present results under both methodologies.

Our event-time BHAR methodology follows that of Lyon, Barber and Tsai (1999) and we account for event-time skewness bias by using the bootstrapping method they suggest when calculating t-statistics. We calculate abnormal returns as

$$AR_{it} = R_{it} - E(R_{it}),$$

where AR_{it} is the BHAR to firm i in period t, R_{it} is the return generated by compounding successive monthly returns to firm i over period t and $E(R_{it})$ is the compounded benchmark return in the same period. The benchmark returns are generated in a two-step procedure from either the single-factor market model, Fama-French three-factor model, and the four-factor model (Carhart (1997)). The model parameters are estimated using data from the period of 60 months ending twelve

months before the recommendation is posted to the community.

We calculate the one-, two- and three-year BHARs to each recommendation using monthly CRSP data, following the advice of Brown and Warner (1985) who espouse the benefits of using monthly data rather than daily data. The event period return data begin on the first of the month following the date the recommendation was posted to the community.

Table 5 presents raw buy-and-hold returns to long and short recommendations and BHARs using benchmarks calculated with the CRSP Value-Weighted Index. As shown in Panel A, fundamental value investors appear to have stock picking ability over one-year time horizons for long recommendations. Raw one-year returns are large—more than 33% per year. Further, the market model-adjusted returns are also large, at 19.14%, and statistically significant at the 1% level. One-year BHARs calculated with the three-factor and four-factor benchmark are not as large—10.12% and 9.39%, respectively—but still impressive and statistically significant.

For horizons beyond one year, stock picking ability declines. After accounting for various combinations of factor returns, two-year BHARs for long recommendations are not significantly different from zero. At three-year horizons, BHAR returns are actually negative and statistically significant for the three- and four-factor models. This data seems to suggest that value investors identify undervalued assets in the current period that the broader market later identifies throughout the year.

Table 5, Panel B shows the performance of short sale recommendations. Raw returns to short selling recommendations are negative over all time horizons, which is expected if the general market has an upward drift. However, after controlling for risk, evidence suggests that value investors are successful short sellers. Abnormal returns for all benchmark models and all holding periods are positive, economically large, and statistically significant. These results are similar to recent findings from Boehmer, Jones, and Zhang (2008), who analyze short sales using proprietary NYSE order data.

We also find abnormal returns using the calendar-time portfolio approach advocated by Mitchell and Stafford (2000) and Fama (1998). First, we create event portfolios consisting of all firms recommended in month t. We then calculate the monthly returns to the portfolio in excess of the risk free rate and then regress this

variable on the excess value-weighted market index return as well as the SMB (small minus big), HML (high book-to-market minus low book-to-market) and MOM (high momentum minus low momentum) pricing factors.[3] We perform this procedure for portfolios constructed on both a value-weighted and an equal-weighted basis.

The results of the calendar-time portfolio regressions are presented in Table 6. Whereas BHAR analysis shows strong evidence for the hypothesis that value investor have stock picking skills, the calendar-time portfolio regression provides favorable, but less convincing results. In Panel A we present the alphas of regressions of long recommendation portfolios. These estimates represent the mean monthly abnormal return over the calendar time horizon. Alphas for the three- and four-factor models all have economically significant positive point estimates for the one-, two-, and three-year calendar-time portfolio regressions, however, their significance is mixed.

Significance of alphas estimated by portfolio regressions depends on whether a value- or equal-weighted portfolio is used. Equal-weighted portfolio regressions produce much more significant (both economically and statistically) alphas. Because the equal-weighted portfolios weight small firms more heavily by construction, we interpret the result as a small-firm effect. Further, because informational asymmetries are greater among small firms, there should be more reward to investors' research efforts in small firms. We interpret this result as evidence that value investors are more successful at identifying undervalued stocks among small firms than they are in the large cap universe.

Panel B presents the results to portfolios formed from short recommendations. These results are consistent with the BHAR analysis. Mean monthly abnormal returns are large and statistically significant in all instances, but decrease monotonically as the calendar time horizon is increased.

To further investigate the hypothesis that alpha-generation by value investors is the result of a small-firm effect, we segregate our sample of long recommendations by market value of equity and repeat the calendar-time approach. First we calculate market value of equity on the day the recommendation was made and assign each

[3] Factors obtained from Ken French's website
http://mba.tuck.dartmouth.edu/pages/faculty/ken.french/data_library.html

observation to one of five quintiles, where quintile 1 represents the smallest firms and quintile 5 represents the largest. We then calculate calendar-time portfolio regression alphas over the same one-, two- and three-year time horizons used above, using the three- and four-factor asset pricing models used above.

The results of this analysis are presented in Table 7. Consistent with our hypothesis, we find much larger and more statistically significant alphas in our small firm quintile. Alphas across all models, portfolio weightings, and time horizons are statistically significant in quintile 1, but very small and generally insignificant in quintile 5.

Overall, the results of these calendar time portfolio regressions corroborate the BHAR analysis and provide further evidence for value investor stock picking skill.[4]

V. Discussion

An underlying assumption of our analysis is that value managers would submit "actionable" investment recommendations to Valueinvestorsclub.com. This raises the basic question of why investors share information about a great investment opportunity. According to efficient market logic (Fama (1970)), the rational arbitrager should act alone, drive the price to the fundamental level, and reap all the rewards of the arbitrage he has found. Unfortunately, arbitragers find this difficult in practice. Two primary reasons for this are capital constraints and the limits to arbitrage arising from the realities in the investment management business (Shleifer and Vishny (1997)). Stein (2007) also questions why one would tell another honestly about an attractive investment opportunity when money managers care about relative performance. Stein's question is valid, however we agree with prior researchers (Shleifer and Vishny (1997)) who suggest that a lack of transparency and understanding of what "relative performance" actually means, cause investors to simply focus on past returns.

Dow and Gorton's (1994) analysis of arbitrager behavior suggests that arbitragers will only make investments if they believe subsequent arbitrager demand will push the asset price to fundamental value. One way arbitragers can help ensure other arbitragers

[4] We analyze the sample matched with the BHAR sample for ease of comparison. We have conducted calendar time portfolio analysis using a larger sample of firms (we include firms that were dropped in the BHAR sample due to an inability to find model estimates using 60 months of data) and the results are quantitatively and qualitatively similar.

take a position in an asset is by sharing their ideas with others. Practitioners refer to this as "talking up your own book." We believe this is one reason investors may share ideas on Valueinvestorsclub.com.

However, after examining all investment theses and the subsequent commentary, we believe members submit many ideas to Valueinvestorsclub.com in which they are still accumulating shares or have yet to take a position. Gray (2008) provides a framework for this no-strings-attached sharing behavior in an investment world where there are limited research resources and money managers must deal with investors who are prone to pulling their funds when a fund manager posts a negative return. He finds that fund managers will desire to share ideas with other fund managers so they can diversify their portfolios amongst a group of good ideas, as opposed to holding concentrated positions in their own good ideas.

Quantitatively determining the specific motivations behind the drive for members of Valueinvestorsclub.com to post investment ideas is intrinsically difficult; however, our extensive analysis of investment recommendations allows us to make qualitative assessments. We believe a few managers use the site to talk up their own book and may only post ideas once they have taken a full position. One value investor who recommended purchasing Aavid Thermal Technologies 12.75% senior subordinate noted on December 31, 2002, that, "Self-interest precluded me from posting the idea [earlier] because the bonds are fairly illiquid and it takes a few months to build a position."

Nevertheless, it seems that the majority of the VIC members are genuinely interested in adding value to the community by posting actionable investment recommendations and frequently state that they are actively buying (or selling in the case of short sale ideas) in the market. Our asset pricing results lend indirect evidence that members are not using the site purely as a marketing tool. If this were the case, we would not expect to find the economically large and statistically significant long-term abnormal returns we find in our database. Plus, if arbitragers (or value hedge fund managers in this case) are capital constrained as a group they will not have the capability to drive prices to fundamental value in the short run and must eventually rely on a broader flow of capital from the markets in order for their investment to realize it's return (Gray (2008)). In this capital constrained world, as long as VIC keeps

its membership limited and exclusive, there should be ample opportunity for the community to take positions at undervalued prices before the broader market discovers the undervaluation.

VI. Conclusion

This paper addresses two economic questions: how do value investors make investment decisions, and do they have stock picking skills? We find that value investors are not focused on high book-to-value stocks, but instead focus on intrinsic value (discounted value of after-tax free cash flows generated by a business) and signaling factors in the market (e.g. open market repurchases, insider buying, activist activity). These investors also tend to favor smaller stocks with a value bias for long positions and small growth stocks for short positions. We also determine that value investors are fairly one dimensional and utilize only a few tools when making their investment decisions. This suggests that professional investors may suffer from limited attention and resource deficiency.

Our analysis of value investors' investments suggests that value investors do have stock picking skills. Utilizing the BHAR and the calendar-time portfolio regression approaches, we find evidence that value investors reliably outperform the market. This result is not surprising. The recommendations we analyze are well researched, and required numerous costly resources to create. In equilibrium, value investors should be compensated for their efforts in analyzing businesses and driving assets to fundamental value (Grossman and Stiglitz (1980)).

Appendix

The following idea to go long Sunterra Corporation was submitted on 6/22/2004 by the VIC user "ruby831" and received a club average rating of 5.8—a good idea according to the community, but not stellar. The write-up is roughly representative of the average idea submission by VIC members.

Submission begins:

Sunterra Corporation (SNRR), a post-reorg equity, is the largest independent vacation ownership company in the world, with more than 300,000 owner families vacationing at 94 resorts in 12 countries in North America, Europe and the Caribbean. Originally founded as Signature Resorts, prior management built the company through multiple acquisitions that were never integrated. As a result, poor operations and controls, combined with an overly leveraged balance sheet, forced the company to file for bankruptcy in 2000. During Chapter 11, a new management team was assembled, with the CEO slot filled by the chief of its successful European operations. Although Sunterra emerged as a public company from bankruptcy in 2002, the company required a continued turnaround in operations, including unifying its systems, re-building its sales force, improving its credit processes and opening a new headquarters.
By the third quarter of 2003, the evidence of a turnaround clearly emerged, as operating margins improved substantially from 3% in Q3 2002 to 16% in Q3 2003. Also significant by late 2003, money losing US operations, which had been depressing overall results, turned profitable for the first time in years. Following the release of 2003 results, management provided guidance for 2004 that projected sales growth of approximately 17%, but due to the full year impact of improved operations, margins and refinancings, an almost doubling of net income (fully taxed and excluding non-cash, reorg related expenses) from approximately $0.52/share to $0.97/share.

In addition to the positive trends specific to Sunterra, the company also benefits from positive industry fundamentals. The vacation ownership industry has shown consistent annual growth, even during recessions and the aftermath of terrorist attacks. Also significant, the industry has evolved into a more professionally managed and institutionally driven market. In addition to Sunterra, industry leaders include major lodging and leisure companies, such as Cendant, Starwood, Marriot, Hilton and Disney, among others. The vacation ownership industry should continue to enjoy strong fundamentals, with a market penetration rate of about 7% domestically and less than 3% in Europe, coupled with the positive demographics of aging baby boomers.

Furthering Sunterra's momentum will be the nationwide availability by the third quarter of a global "points-based" marketing and sales format. Currently in the U.S., customers purchase vacation ownership units through a deeded interest in a property for a certain number of weeks of usage per year at specific resorts. By selling on a global points based system, in which customers purchase points rather than weeks, Sunterra will significantly enhance its value proposition and its marketing capability to the existing customer base (the best source of new sales) and decrease marketing expenses. (The European unit has operated under a points system for many years and has historically shown marketing expenses as a percentage of sales lower than the U.S. by over 300bps.)

Other factors highlight Sunterra's solid business characteristics. These include a strong recurring revenue base (about 30% of revenues), including property management fee income (about $30mm); resort rental revenues ($11mm-$15mm); interest income on a $230mm+ receivables portfolio ($26mm+); and other income, including annual Club Sunterra, travel agency commissions and other fees ($20mm). In addition, about 40% of the balance of revenues (comprised of the sale of VOIs, or "vacation ownership interests"), comes from existing customers. Solid barriers to entry exist in the increasingly institutionalized vacation ownership industry, including the significant capital and scale required for multiple properties and global operations, as well as state regulatory hurdles in creating a global points- based system (SNRR labored for two+ years to implement it). Smaller, regional players are finding it difficult to compete, providing opportunities for Sunterra to acquire inventory, portfolios and customers at attractive prices (two deals closed in the last five months). Alternatively, since SNRR is the largest independent operator in the industry, it offers a compelling strategic asset to other lodging and leisure industry companies.

On the acquisition front, SNRR recently announced the purchase of 100% of a premier Hawaii resort that it managed and in which it owned a 23% stake. This property boosts an already impressive amount of resort inventory from about $600m at retail to $835mm at retail, representing almost 2.5 years of inventory. While the company has stated (without specifics) that this acquisition will be accretive, we estimate that it will add about $0.04 per share annually on a fully taxed basis. Importantly, there is no integration risk, since SNRR already manages and sells this property as part of its vacation network.

Based on a stock price of $12.40, a market capitalization of $248mm and net corporate debt of $135mm (excludes debt secured by the mortgage receivable portfolio), SNRR has an enterprise value of $383mm. We estimate EBITDA (our definition of which, consistent with the view of strategic buyers, is after interest expense on debt secured by mortgage receivables) to be $55mm for 2004 and $74mm for 2005, implying multiples of 7.0 and 5.2x, respectively. We estimate fully taxed EPS (excluding non-cash charges related to the reorganization and certain non-cash interest amortization) of $0.99 for 2004 and $1.44 for 2005, implying P/E multiples of 12.5x and 8.6x. A domestic NOL of $137.5mm, worth more than $1.00/share on a present value basis, makes these multiples even more attractive.

Industry transaction multiples have ranged from 7-11x EBITDA; we believe that SNRR would garner a premium multiple, but even applying the low end of the range of 7x 2005 EBITDA implies a $17.50 stock price (based on fully diluted shares included a recently issued convert, warrants and options and including corporate debt related to the Hawaii acquisition). The high end multiple would suggest a $28 stock price. Book value per share of about $10 ($7/share tangible book) also provides support for the stock. In any case, the stock appears attractively valued with earnings expected to grow organically at 25%+ for the near future.

Finally, we note that management has strong incentives to create shareholder value, with two million options struck at $15.25 per share. Following the release of Q1 earnings, management further proved its commitment and incentives, with the CEO and CFO both reporting purchases of the stock at approximately $11.00 per share.

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Table 1: Investment Characteristics

This table reports summary statistics for the sample of professional value investor investment recommendations. The sample includes all recommendations shared with the Valueinvestorsclub.com community from the time of the community's launch on January 1, 2000 through June 30, 2008. Panel A reports where assets are traded and the asset type recommended. Panel B reports the number of each long, short and long/short recommendation by the type of asset. Panel C reports the number of each long, short, and long/short recommendation by trading location.

Panel A: Asset type and trading location (n=2912)

Market	Common Stock	Bonds	Preferred Stock	Convertible Securities	Warrants	Options	Other	Total
US	2442	37	24	4	7	7	25	2546
Canada	138	1	2	0	0	0	2	143
UK/Europe	121	2	0	0	0	0	1	124
Japan	14	0	0	0	0	0	1	15
Hong Kong	13	0	0	0	0	0	0	13
Korea	13	0	0	0	0	0	0	13
Other	57	0	0	0	0	0	1	58
Total	2798	40	26	4	7	7	30	2912

Panel B: Recommendation by asset type (n=2912)

	Common Stock	Bonds	Preferred Stock	Convertible Securities	Warrants	Options	Other	Total
Long	2537	35	20	4	7	7	8	2618
Short	230	0	3	0	0	0	5	238
Long/Short	31	5	3	0	0	0	17	56
Total	2798	40	26	4	7	7	30	2912

Panel C: Recommendation and market location (n=2912)

	US	Canada	UK/ Europe	Japan	Hong Kong	Korea	Other	Total
Long	2271	140	116	14	11	12	54	2618
Short	232	0	4	0	0	0	2	238
Long/Short	43	3	4	1	2	1	2	56
Total	2546	143	124	15	13	13	58	2912

Table 2: Frequency of Criteria Cited as Basis for Recommendations

This table summarizes how frequently Valueinvestorsclub.com members cited various reasons as the basis for their recommendations. Each recommendation is assigned at least one reason, and many ideas receive multiple reasons. Criteria were included if there were at least 10 recommendations that cited it as a unique criteria for investing in a particular asset.

N=2912 Criteria description	% of total
Intrinsic Value Undervaluation	87.50
Tangible Asset Undervaluation	23.56
Active Open-Market Share Repurchase Program	12.12
Net Operating Loss Assets	5.29
Recent Restructuring, Spinoff or Spinoff Potential	5.12
Undervaluation on a "Sum-of-the-Parts" Basis	4.84
Insider Buying	4.70
Involvement of Activist Investor	4.29
Lack of Sell-Side Analyst Coverage	2.75
Turnaround and/or Recent Bankruptcy	2.40
Liquidation Potential	2.30
Complicated Business or Taxes Creating Investor Confusion	2.06
Merger Arbitrage Situation	1.44
"Stub" Arbitrage Situation	1.37
Merger Arbitrage Trading Opportunity	0.82
Pair-trade Strategy	0.69

Table 3: How Value Investors Make Decisions

This table shows summary statistics for the sample of investment recommendations submitted to Valueinvestorsclub.com between January 1, 2000 and June 30, 2008. Panel A highlights the top combinations of investment criteria used by value investors. Panel B reports the number of investment criteria used by investor recommendations submitted to Valueinvestorsclub.com. (n=2912).

Panel A: Most common combinations

Rank	Criteria combination	# criteria	% of total
1	Intrinsic value	1378	45.57
2	Tangible assets; intrinsic value	278	9.55
3	Intrinsic value; share repurchase program	181	6.22
4	Tangible assets	117	4.02
5	Intrinsic value; net operating loss assets	64	2.20
6	Intrinsic value; restructuring, spinoff, or spinoff potential	62	2.13
7	Intrinsic value; insider buying	60	2.06
8	Tangible assets; intrinsic value; share repurchase program	58	1.99
9	Intrinsic value; sum of parts	50	1.72
10	Intrinsic value; activist investor involvement	37	1.27
Others		571	23.28

Panel B: # of criteria used

	#	% of total
1	1568	53.85
2	973	33.41
3	308	10.58
4	57	1.96
5+	6	.21

Table 4: Descriptive Statistics

This table reports summary statistics for the sub sample of professional value investor investment recommendations that have the necessary data from CRSP/Compustat to perform asset pricing tests. Panel A and B examine the distribution of investment recommendations using four-digit Standard Industry Classification (SIC) industries. Panel C and D show the fundamental characteristics of investment ideas. B/M is the ratio of the LTM book value of equity to the market value of equity measured at the end of the month in which the investment is recommended. E/M is the ratio of LTM trailing earnings to the market value of equity measured at the end of the month in which the investment is recommended. ROA is the LTM return on assets. ME is the market value of equity measured at the end of the month in which the investment is recommended.

		Panel A: Industry representation for long recommendations (n=554)		*Panel B: Industry representation short recommendations (n=56)*	
Industry	SIC codes	Number of recommendations	Percent of sample	Number of recommendations	Percent of sample
Agriculture	$<$ 1,000	2	0.4	2	3.7
Mining	1,000-1,499	15	2.7	0	0
Construction	1,500-1,999	12	2.2	0	0
Manufacturing	2,000-3,999	197	35.9	24	40.7
Transportation	4,000-4,999	54	9.8	2	3.7
Wholesale trade	5,000-5,199	26	4.7	1	1.9
Retail trade	5,200-5,999	74	13.4	4	7.4
Financial Services	6,000-6,999	81	14.8	12	22.2
Services	7,000-8,999	90	16.4	11	20.4
Other	$>$ 9,000	3	0.6	0	0
Total		554	100.0%	56	100.0%

Table 4: Descriptive Statistics (continued)

	Panel C: Long recommendation fundamental characteristics (n=554)				*Panel D: Short recommendation fundamental characteristics (n=56)*			
Variable	Mean	25th Percentile	Median	75th Percentile	Mean	25th Percentile	Median	75th Percentile
ME (millions)	2,994	94	379	1,441	1,115	219	510	1,268
B/M	0.77	0.38	0.63	1.04	0.57	0.23	0.32	0.48
E/M	-0.08	0.01	0.06	0.10	-0.01	0.00	0.04	0.08
ROA	0.02	0.00	0.05	0.09	0.09	0.00	0.04	0.11
ROE	1.56	0.01	0.11	0.20	0.05	0.00	0.13	0.20

Table 5: One-, Two- and Three-year BHAR to Community Member Recommendations Using CRSP Value-Weighted Index

Returns are calculated for all observations with sufficient return data. We require that all event period returns have no missing values and no missing values during the estimation period. Raw returns are simple buy-and-hold returns (BHAR) calculated by compounding monthly returns over the event period. Market model BHAR are calculated with the single-factor market model as a benchmark. Fama-French Three-Factor BHAR are calculated with the three-factor model as a benchmark. Four-factor BHAR uses benchmark returns generated by the Fama-French three-factors plus the Carhart (1997) momentum factor. Bootstrapped skewness-adjusted t-statistics are in parentheses.

Panel A: Long Recommendations (n=554)

	Raw Return	Market Model	Three-Factor	Four-Factor
One-year	**33.46%**	**19.14%**	**10.12%**	**9.39%**
	(15.97)***	(7.16)***	(3.75)***	(3.39)***
Two-year	**63.08%**	**20.86%**	**5.73%**	**-3.65%**
	(21.97)***	(3.71)***	(1.03)	(-0.61)
Three-year	**92.82%**	**3.23%**	**-16.77%**	**-41.23%**
	(24.81)***	(0.30)	(-1.71)*	(-3.90)**

Panel B: Short Recommendations (n=56)

	Raw Return	Market Model	Three-Factor	Four-Factor
One-year	**-7.22%**	**24.83%**	**29.96%**	**33.12%**
	(-1.05)	(2.82)**	(3.20)**	(3.41)**
Two-year	**-21.60%**	**38.75%**	**46.46%**	**51.10%**
	(-2.27)*	(2.60)*	(2.96)*	(3.27)**
Three-year	**-42.67%**	**42.10%**	**51.90%**	**57.63%**
	(-3.23)**	(1.97)	(2.34)	(2.63)*

*, ** and *** denote one-tailed statistical significance at the 5%, 1% and 0.1% levels respectively.

Table 6: Calendar-Time Portfolio Regressions

One-, two- and three-year calendar-time regressions using the model given by $R_{p,t} - R_{f,t} = \alpha_i + \beta_i(R_{m,t} - R_{f,t}) + \delta_i(SMB_t) + \gamma_i(HML_t) + \varepsilon_{i,t}$, or $R_{p,t} - R_{f,t} = \alpha_i + \beta_i(R_{m,t} - R_{f,t}) + \delta_i(SMB_t) + \gamma_i(HML_t) + \theta(MOM_t) + \varepsilon_{i,t}$, where $R_{p,t}$ is the return in month t to a calendar-time portfolio of firms constructed from community member long recommendations. $R_{m,t}$ is the return on the value-weighted market portfolio. $R_{f,t}$ is the one-month T-bill rate. SMB_t is the difference in the returns of the portfolios of small stocks and big stocks. HML_t is the difference in the returns of the portfolios of high book-to-market stocks and low book-to-market stocks. MOM_t is the difference in the return of the average of portfolios of small and big past winners and the average of portfolios of small and big past losers. The factors used in the regressions are obtained from Ken French's website. The sample used in these regressions consists of 554 long recommendations or 56 short recommendations. Heteroskedasticity-consistent t-statistics are in parentheses.

	Value-Weighted Portfolios			Equal-Weighted Portfolios		
	One-year	Two-year	Three-year	One-year	Two-year	Three-year
Panel A: Long Recommendations						
Three-Factor model alpha	0.0072	0.0078	0.0067	0.0158	0.0124	0.0091
	(1.09)	(1.54)	(1.64)	(5.51)***	(3.18)***	(2.74)**
Four-Factor model alpha	0.0069	0.0073	0.0076	0.0156	0.0120	0.0098
	(1.09)	(1.52)	(1.93)*	(3.97)***	(3.52)***	(3.34)***
Panel B: Short Recommendations						
Three-Factor model alpha	-0.0308	-0.0280	-0.0171	-0.0173	-0.0126	-0.0086
	(-2.85)**	(-3.00)**	(-2.16)*	(-2.42)**	(-2.14)*	(-1.88)*
Four-Factor model alpha	-0.0309	-0.0279	-0.0172	-0.0179	-0.0127	-0.0093
	(-2.90)**	(-3.02)**	(-2.24)*	(-2.59)**	(-2.19)*	(-2.18)*

*, ** and *** denote one-tailed statistical significance at the 5%, 1% and 0.1% levels respectively.

Table 7: Calendar-Time Portfolio Regressions by Market Value of Equity

Observations were sorted into quintiles based on market value of equity (MVE) of the underlying firm at the time of recommendations. Each quintile was then independently subjected to the calendar-time portfolio regression methodology. Shown in this table are one-, two- and three-year calendar-time regressions using the model given by $R_{p,t} - R_{f,t} = \alpha_i + \beta_i(R_{m,t} - R_{f,t}) + \delta_i(SMB_t) + \gamma_i(HML_t) + \varepsilon_{i,t}$,(Panel A), or $R_{p,t} - R_{f,t} = \alpha_i + \beta_i(R_{m,t} - R_{f,t}) + \delta_i(SMB_t) + \gamma_i(HML_t) + \theta(MOM_t) + \varepsilon_{i,t}$, (Panel B), where $R_{p,t}$ is the return in month t to a calendar-time portfolio of firms constructed from community member long recommendations. $R_{m,t}$ is the return on the value-weighted market portfolio. $R_{f,t}$ is the one-month T-bill rate. SMB_t is the difference in the returns of the portfolios of small stocks and big stocks. HML_t is the difference in the returns of the portfolios of high book-to-market stocks and low book-to-market stocks. MOM_t is the difference in the return of the average of portfolios of small and big past winners and the average of portfolios of small and big past losers. The factors used in the regressions are obtained from Ken French's website. The sample used in these regressions consist of 554 long recommendations, with 110 or 111 recommendations in each quintile. Size quintile 1 is the quintile of the smallest MVE firms and Size quintile 5 is the quintile of the largest. Heteroskedasticity-consistent t-statistics are in parentheses.

Panel A: Three-Factor Model alphas

	Value-Weighted Portfolios			Equal-Weighted Portfolios		
	One-year	Two-year	Three-year	One-year	Two-year	Three-year
Size Quintile						
1	**0.0187**	**0.0126**	**0.0132**	**0.0239**	**0.0175**	**0.0157**
	(2.35)**	(2.03)*	(2.60)**	(2.99)**	(3.07)**	(3.30)**
2	**0.0102**	**0.006**	**0.0008**	**0.0111**	**0.0061**	**0.0007**
	(1.47)	(1.46)	(0.24)	(1.74)*	(1.65)*	(0.20)
3	**0.0192**	**0.0166**	**0.0093**	**0.0174**	**0.0150**	**0.0080**
	(2.08)*	(2.32)*	(1.50)	(2.34)**	(2.56)**	(1.53)
4	**0.0058**	**0.0031**	**0.0000**	**0.0086**	**0.0045**	**0.0014**
	(0.92)	(0.64)	(0.00)	(1.53)	(0.98)	(0.28)
5	**0.0037**	**0.0050**	**0.0045**	**0.0046**	**0.0065**	**0.0055**
	(0.53)	(0.98)	(1.08)	(0.84)	(1.49)	(1.55)

Table 7: Calendar-Time Portfolio Regressions by Market Value of Equity (continued)

Panel B: Four-Factor Model alphas

	Value-Weighted Portfolios			Equal-Weighted Portfolios		
	One-year	Two-year	Three-year	One-year	Two-year	Three-year
Size Quintile						
1	**0.0185**	**0.0123**	**0.0138**	**0.0237**	**0.0172**	**0.0163**
	(2.34)**	(1.99)*	(2.63)**	(3.32)**	(3.03)**	(3.39)***
2	**0.0102**	**0.0057**	**0.0009**	**0.0111**	**0.0060**	**0.0007**
	(1.46)	(1.40)	(0.27)	(1.75)*	(1.61)	(0.22)
3	**0.0197**	**0.0166**	**0.0109**	**0.0178**	**0.0150**	**0.0094**
	(2.24)*	(2.38)*	(1.95)*	(2.53)**	(2.73)**	(1.95)*
4	**0.0053**	**0.0024**	**0.0005**	**0.0081**	**0.0039**	**0.0018**
	(0.94)	(0.60)	(0.09)	(1.61)	(0.99)	(0.38)
5	**0.0036**	**0.0048**	**0.0054**	**0.0045**	**0.0062**	**0.0067**
	(0.52)	(0.93)	(1.30)	(0.92)	(1.63)	(2.25)*

*, ** and *** denote one-tailed statistical significance at the 5%, 1% and 0.1% levels respectively.