

LAST YEAR'S WINNERS AS THIS YEAR'S PICKS: AN ANALYSIS OF RECENT HINDSIGHT AS A MUTUAL FUND TRADING RULE?

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Abstract

Financial theory has long postulated that financial markets are efficient in the semi-strong form [1]. This hypothesis suggests that market prices reflect all publicly held information. The result of semi-strong efficiency is that an investor cannot earn returns in excess of market returns without a greater risk. Furthermore, after adjusting for risk, there is no systematic method to "beat the market." However, numerous studies suggest that historical information does provide a guide for successful current investing. This study proposes a simple trading rule that does seem to "beat the market" and does so without increasing risk.

INTRODUCTION

One of the central tenets in the finance literature is that financial markets are efficient in the semi-strong form [1]. This suggests that asset prices reflect all publicly available information. Since market prices adjust to new information quickly, investors cannot profit from public information because the price reflects the new information before the investor can react. Empirical studies of portfolio returns utilizing trading rules and/or professional management indicate that neither activity produces returns in excess of the market return. For examples, see Treynor [7], Sharpe [6] and Jensen [2]. Grinblatt and Titman [3] however, did find a statistically significant higher return for mutual fund performance based on past returns. However, this difference is not sufficient to cover transactions costs. Thus, these studies provide support for the semi-strong form of market efficiency.

In spite of these results that support market efficiency, mutual funds continue to emphasize their past performance in their advertising. Investors include this information on past performance in determining their mutual fund selection. However, this selection process disregards the actual variability in the returns of these mutual funds as well as the lack of support from financial theory.

Recent articles by Hendricks, Patel and Zeckhauser [5] and Goetzmann and Ibbotson [2] again address the issue of the predictive power of past performance by a mutual fund. Their results contradict the earlier findings and indicate that recent performance is an indication of performance in the near future. Hendricks, Patel and Zeckhauser [5] examine portfolios of "top performing" mutual funds (with "top performers" defined as the top octile of no-load growth funds). Their findings suggest that these "winners" tend to earn a higher risk-adjusted return than some, but not all, market indices in the period following their outstanding return. Their results are even stronger for poor performing portfolios. A portfolio made up of mutual funds from the lowest octile continues to have returns less than the market.

Grinblatt and Titman [3] also examined the performance of mutual funds over time. Their study evaluated the abnormal return to the mutual fund by comparing the fund's return to benchmark portfolios constructed from individual stocks. These portfolios were formed based on numerous characteristics, including firm size, dividend yield, three-year return history, and the CAPM (capital asset pricing model) beta of the firm's stock. Their results did indicate superior performance by successful funds did tend to persist over time.

Goetzmann and Ibbotson [2] defined winners as those mutual funds whose risk-adjusted return exceeded the median return to mutual funds. Their study examined monthly returns over a two year period. These returns were compounded to simulate the reinvestment of income. They found that in their sample, "winners" repeat

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approximately 64% of the time. Thus, past performance does seem to contain information on future portfolio returns that should be considered when selecting a mutual fund.

METHODOLOGY

Mutual funds' returns are the target of significant interest in the popular press. *Money*, *Consumer Reports*, *Kiplinger's Personal Finance Magazine*, and other magazines list the top mutual funds for the preceding year. Typically, the returns are not adjusted for risk, but they are quite understandable to the lay investor.

However, the theoretical sophistication of the studies by Hendricks, Patel and Zeckhauser [5] and Goetzmann and Ibbotson [2] cause them to be of limited value, if any, to the average mutual fund investor. For instance, Hendricks, Patel and Zeckhauser [5] estimate the portfolio return in excess of the market return. The determination of the risk-adjusted return, or even a quantifiable measure of risk, is beyond most mutual fund investors.

In addition, the results of Hendricks, Patel and Zeckhauser [5] and Goetzmann and Ibbotson [2] only examine whether or not the last year's winner will yield an above average return the next year. These studies ignore how much the investor's return will be over time by following this investment strategy. For instance, using the Goetzmann and Ibbotson [2] study as your guide, will you earn enough in the 64% of the cases when winners are succeeded by winners to recover your losses in the 36% of the cases when winners are succeeded by losers? For an investor, this is the critical piece of information.

The present study takes the Hendricks, Patel and Zeckhauser [5] and Goetzmann and Ibbotson [2] postulate that outstanding mutual fund performance one year often carries into the succeeding year. However, this study examines whether a simplified definition of a "winner" (no risk adjustment) can produce similar results. Additionally, this study evaluates the effect on the portfolio's return over time by following this strategy. Can an investing rule with a simpler and more easily applied definition of "winners" produce the excess returns found in the more sophisticated studies? If this is so, then it suggests a trading rule that could be employed by the average investor.

To determine whether winners repeat, the present study examines the annual return of the mutual fund for the year after the fund was the top performer. This annual return is compared to the annual return for the market. The return of the S&P 500 is used as a proxy for the market. If the return to the winners for the succeeding year is greater than the return to the market for equivalent levels of risk, then this suggests a trading rule that is simple to follow and generates excess returns. This study uses annual returns for top performing widely held mutual funds from 1963 through 1994 from the *Weisenberger Investment Companies Services* data set [8].

FINDINGS

The findings are shown in Table 1. ROR(t) is the return the year the fund was the best performer. ROR(t+1) is the fund's return the following year. S&P 500 ROR is the return to the S&P 500 for that year. The analysis indicates that the geometric average return from 1963 through 1994 for widely diversified funds the year after they were the top fund is 15.58%, with a standard deviation of 21.7%. (The geometric average is preferred over the arithmetic average as the former includes the effect of compounded interest.) The geometric return to the S&P 500 is 8.08%, with a standard deviation of 21.01%. Thus, for similar levels of risk (as measured by the standard deviation), the return to the winning indexed fund is nearly 93% higher than the proxy for the market return.

For the sample period of this study, the return to last year's winner the following year exceeded the market return the following year in 21 out of the 32 years. This suggests that "winners follow winners" 65.6% of the time. This is approximately the same as the 64.4% Goetzmann and Ibbotson found in their 1994 study. Thus, while no mutual fund was the top performer for two successive years, there was a preponderance of evidence that last year's top performer would out-perform the market the following year as well.

Of particular interest is the effect this investment strategy would have had on a given investment. Assume \$1000 was invested in 1963 in top mutual fund of 1962, the Ivest Fund. At the end of 1963, the \$1000 had grown to \$1204. A similar investment into a market fund, as approximated by the S&P 500, would have yielded only \$1188.90. If the investment strategy of using last year's winners as this year's guide had been followed for the thirty-two years of this study, the \$1000 would have grown to \$107,889.42. This corresponds to a geometric average annual rate of return of 15.58%. If the \$1000 is left in the S&P 500 fund, it would have grown to only \$13,422.37. This reflects an geometric average annual rate of return of 8.08%.

TABLE 1
Rates of Return

Year	Best Performer	ROR (t)	ROR (t+1)	S&P 500 ROR	Value of \$1000 Invested in Last Year's Winner	Value of \$1000 Invested in S&P 500
1963	Ivest Fund	58%	20%	19%	\$1,204.00	\$1,188.90
1964	Over-The-Counter	28%	32%	13%	\$1,586.87	\$1,343.10
1965	Security Equity	79%	9%	91%	\$1,726.52	\$2,559.95
1966	Country Capital Investment Fund	41%	33%	-13%	\$2,296.27	\$2,224.85
1967	Enterprise Fund	117%	44%	20%	\$3,313.51	\$2,671.82
1968	Neuwirth Fund	90%	-17%	8%	\$2,740.28	\$2,876.49
1969	Channing Growth Fund	28%	-18%	-11%	\$2,257.99	\$2,549.72
1970	Country Capital Investment Fund	27%	12%	0%	\$2,517.66	\$2,552.27
1971	Nicholas Strong Fund	85%	28%	11%	\$3,225.12	\$2,827.66
1972	Omega Fund	44%	-18%	16%	\$2,641.37	\$3,269.62
1973	ISI Trust Fund	14%	8%	-17%	\$2,842.12	\$2,701.69
1974	Sherman, Dean Fund	25%	20%	-30%	\$3,421.91	\$1,899.02
1975	44 Wall Street Fund	184%	47%	32%	\$5,013.09	\$2,498.16
1976	Sequoia Fund	73%	20%	19%	\$6,010.70	\$2,976.55
1977	Value Line Leveraged Growth	52%	28%	-12%	\$7,669.65	\$2,634.25
1978	Twentieth Century Growth Fund	48%	74%	1%	\$13,360.53	\$2,662.17
1979	Fiduciary Growth Associates	86%	23%	12%	\$16,460.18	\$2,989.88
1980	Hartwell Emerging Growth	94%	-13%	26%	\$14,287.43	\$3,760.38
1981	Lindner Fund	35%	27%	-10%	\$18,187.90	\$3,394.49
1982	Oppenheimer Target Fund	81%	25%	15%	\$22,698.50	\$3,895.52
1983	Oppenheimer Regency Fund	58%	-23%	17%	\$17,432.45	\$4,567.50
1984	Vanguard High Yield Stock Fund	26%	30%	1%	\$22,679.62	\$4,632.36
1985	Fidelity O-T-C Portfolio	69%	11%	26%	\$25,265.09	\$5,850.20
1986	Fidelity Growth & Income	35%	6%	15%	\$26,730.47	\$6,707.84
1987	Oppenheimer Premium Income	46%	5%	2%	\$27,986.80	\$6,844.01
1988	Integrated Equity - Agg Growth	49%	23%	12%	\$34,423.76	\$7,691.98
1989	Alger Fund Small Cap. Portfolio	65%	7%	27%	\$36,730.16	\$9,788.82
1990	Phoenix Capital Appreciation	21%	48%	-7%	\$54,323.90	\$9,146.67
1991	CGM Capital Developemnt	99%	18%	26%	\$63,830.59	\$11,553.16
1992	Oakmark Fund	49%	31%	4%	\$83,298.91	\$12,068.43
1993	PBHG Growth Fund	47%	5%	10%	\$87,297.26	\$13,263.21
1994	Montgomery Growth Fund	21%	24%	1%	\$107,899.42	\$13,422.37
	Geometric average return		15.58%	8.08%		
	Average return		17.15%	10.47%		
	Standard deviation		21.73%	21.01%		

Source: Weisenberger Investment Companies Service, 1964-1995

CONCLUSIONS

These results seem to indicate that buying last year's mutual fund winner may be a trading rule that outperforms the market. This result is surprising for several reasons. First, the semi-strong form of the efficient market theory suggests that such a trading rule should not exist. Also, with only a few exceptions, the funds have not been stellar performers the year after being number one.

A key difference between this study and the analysis by Goetzmann and Ibbotson [2] is that this study makes no attempt to adjust for risk. One reason for this approach is that the portfolio betas for the mutual funds included in

this study are not known. However, it is questionable in this analysis whether the portfolio beta is the relevant measure of risk. The portfolio beta captures the variability of the mutual fund's return relative to the market. However, if risk is defined as the variability in the investment's return, then the standard deviation of the return is an appropriate risk measure. In this case, that is the standard deviation of the returns associated with investing in last year's mutual fund with the highest return. The standard deviation of the return to a particular mutual fund over time is of little interest because this trading rule assumes the investor does not expect to remain in that particular mutual fund for more than one year.

Thus, the answer to the initial question, "Is there a trading rule based on previous winners?" is a cautious yes. Years of financial theory and empirical studies are not easily dismissed. However, the results of this study do support the Grinblatt and Titman [3] and the Goetzmann and Ibbotson [2] findings. Further investigation into this area is certainly warranted.

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