

# The Value of Past Performance Data: The Case of Mutual Funds

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*An estimate of the potential value of using past performance data in the selection of mutual funds is presented. Empirical results are based on historical returns and information that is readily available in popular press sources. The payoff from obtaining and evaluating past performance data prior to selecting and investing in mutual funds was found to be positive, and in many cases substantial.*

KEY WORDS: *past performance data, mutual fund selection.*

The first open-end investment company (mutual fund) in America was formed in 1924. In 1980, the number of mutual funds had grown to 564 (Investment Company Institute, 1987). By 1991, over 3,200 were in existence (phone call, Investment Company Institute, June 1991). This "explosion" in the number of mutual funds in recent years has had a profound impact upon the financial services sector in several important ways.

First, investors now have a wider variety of mutual funds from which to choose<sup>1</sup>. Secondly, increased competition within the mutual fund industry has prompted many companies to enhance and upgrade shareholder services. Lastly, growth in the mutual fund industry has facilitated the entrance of smaller-scale investors into the securities investment market. In short, growth has had positive effects on the mutual fund industry. However, growth in the number of mutual funds has brought challenges. A primary challenge is evaluating and selecting an appropriate fund from among so many. This problem has been recognized, inasmuch that there are now numerous sources of mutual fund performance data. As of 1987, there were more than 20

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*The reader is referred to a lengthier discussion of information search by these authors in Journal of Consumer Studies and Home Economics, 15, (1991).*

newsletters and 13 directories devoted to mutual funds (Changing Times, 1987). In addition, a half dozen financial magazines report regularly on mutual fund performance.

The purpose of this paper is to present research which demonstrates the potential value of using past performance data to evaluate mutual funds. A low-cost, easily accessible data source was used in this research.

### Research Methods

Data for this study were obtained from *Forbes* (1976, 1987). The value, or payoff, from using past performance data as a selection criterion in the mutual fund market was estimated by comparing the total investment return of each fund on the 1976 Honor Roll with the total return of the Standard & Poor's 500 Index over a subsequent period of nearly eleven years (1976 to 1987). Inasmuch as the S&P 500 represents the return of the "market" it is customarily used by mutual fund companies, financial journals and periodicals, and investment advisors as a standard for comparison, or benchmark of performance<sup>2</sup>. This empirical approach is similar to that employed by Shepard (1976) in which he evaluated the performance of stocks recommended by several investment advisory services over a period of three years. *Forbes* was one of the advisory sources used in Shepard's study.

Each year *Forbes* identifies an "Honor Roll" consisting of equity (stock and stock/bond) mutual funds which have had superior performance in both up and down markets during the preceding 10 or so years. *Forbes* ranks mutual fund performance in up and down markets using an academic scale, A+ through F. To be included on the Honor Roll funds generally must have an A or B grade in up and down markets and achieve some threshold level of total investment return determined by the *Forbes* research staff.

The *Forbes* Honor Roll in 1976 consisted of 15 equity funds ranked to be superior on the basis of their performance over the preceding ten year period (1966 to 1976). From among 217 funds (the number of equity funds rated over the ten year period from 1966-1976) the 1976 Honor Roll represented the top seven percent of mutual funds.

In 1976, a consumer desiring to invest in mutual funds could have used the *Forbes* Honor Roll as a source of data regarding mutual fund past performance.

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To illustrate the value of such data, hypothetical investments of \$10,000 were made into each fund on the 1976 Honor Roll and held through 1987. Sales load (front-end commission) was taken into account, thereby reducing the \$10,000 investment according to the size of the sales load. In addition, \$10,000 was invested in the S&P 500 Index<sup>3</sup>. No sales load was assumed for the investment into the S&P 500 inasmuch as the largest S&P 500 clone fund (Vanguard Index 500) is a no-load fund.

Results of this "simulation" are shown in Table 1. (Data for three of the funds on the 1976 Honor Roll were unavailable in 1987, hence only 12 funds are shown). Funds are listed in order of performance over the ten years prior to 1976 (1966-1976).

By 1987, eight of the funds on the 1976 *Forbes* Honor Roll had exceeded the return of the market, as measured by the Standard & Poor's 500 Index. Four funds had under-performed the market. Funds which had been ranked high in 1976 based on prior performance (The Japan Fund, Templeton Growth, and Mutual Shares) were among the top performers<sup>4</sup> over the subsequent ten and three-quarter years (9/30/1976 to 6/30/1987). One exception was the Windsor Fund which did exceptionally well despite an average Honor Roll ranking in 1976.

The payoff from using past performance data in selecting a mutual fund can yield substantial dollar returns. As shown in Table 1, a \$10,000 investment in the Standard & Poor's 500 Index on 9/30/76 would have grown to \$47,955 as of 6/30/87 (not adjusted for inflation or taxes). Over the same time period, the top fund on the 1976 Honor Roll turned \$10,000 into \$70,990. The payoff from using the 1976 *Forbes* Honor Roll of mutual funds as a criterion for selecting a mutual fund could have been as high as \$23,035 when compared to the dollar return of the S&P 500.

Our comparison of the 1976 Honor Roll funds to the S&P 500 Index provides a **conservative** estimate of the potential dollar payoff of using past performance data as a mutual fund selection criterion. The reason for this is that the S&P 500 Index outperforms many mutual funds. Between 1976 to 1987, almost half (43%) of the 314 equity mutual funds available in 1976 failed to equal the 15.70% average annual return achieved by the S&P 500 Index. For this reason, many investors simply select a mutual fund which attempts to mirror the performance of the Standard & Poor's 500 Index.

Table 1  
1976 Honor Roll - Performance Ten Years Before and Eleven Years After

Fund Name (Listed in order of performance from 1966 to 1976)	Percent Average Annual Return 1966-1976	Percent Average Annual Return 1976-1987	Percent Sales Load	Value in 1987 of \$10,000 Investment made in 1976 (a)	Difference from S&P 500
The Japan Fund	18.6	20.0	CE	\$70,990	\$23,035
Templeton Growth Mutual Shares	14.2	20.1	8.5	\$65,540	\$17,585
Petroleum Corp of America	8.8	22.1	0.0	\$85,545	\$37,590
Pioneer Fund	7.1	15.5	CE	\$45,659	(\$2,296)
Istel	6.1	16.0	8.5	\$45,117	(\$2,838)
Putnam Investors	5.6	11.9	3.0	\$33,491	(\$14,464)
Financial Industrial Income	5.3	15.8	8.5	\$48,402	\$447
Windsor Fund	5.1	17.0	.0	\$54,075	\$6,120
The Lehman Group	4.8	20.8	8.5	\$76,246	\$28,291
Niagra Share Corp.	4.5	15.8	CE	\$48,402	\$447
Guardian Mutual	4.2	15.5	CE	\$43,070	(\$4,885)
Average of Honor Roll Funds	4.1	18.0	.0	\$54,219	\$6,264
Standard & Poor's 500 Index	7.4	17.4	4.6	\$55,897	\$7,942
	1.0	15.7	.0	\$47,955	

a = Accounting for sales load. Investment period of 10 3/4 years. Value of investment in 1987 may not exactly match average annual return figure from 1976 to 1987 due to rounding.

CE = Closed-End Fund. Closed-end funds do not have an explicit sales load. They are traded in the open market like stocks and bonds, either at a premium or at a discount to their net asset value.

### Summary and Conclusions

Empirical observation indicates that the potential payoff from using past performance data as a mutual fund selection criterion can be positive and substantial. Recognizing that the popular press disseminates information pertaining to mutual fund performance quickly and efficiently, practitioners and educators in the field of consumer economics and family financial management would do well to utilize such sources of information.

The authors suggest that the primary goal of using low-cost, publicly available performance data is simple -- namely, to lessen the probability of selecting a

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very poor mutual fund. Inasmuch as the stock market cannot be predicted with any high degree of accuracy, utilizing past performance data will not likely identify the best possible mutual fund in the future. However, it may increase the probability of avoiding funds which chronically underperform the market.

Extension agents, and others involved in information dissemination, might consider referring individuals to publicly available information (such as high quality popular press magazines) rather than attempting to compile handouts and factsheets themselves. Demands upon extension professionals may necessitate increased usage of public and private sector resources.

### Suggestions for Future Research

The research reported has several deficiencies. First, our methodology has facilitated the use of only a small portion of the data available in the popular press. Second, the estimated dollar payoff from a market search is limited to the specific 10 3/4 year period used in the study (9/30/1976 to 6/30/1987). Hence, this type of historical analysis needs to be replicated using additional sources of past performance data over several time periods before findings can be generalized with confidence.

### Endnotes

<sup>1</sup> *The Investment Company Institute classifies mutual funds into 22 broad categories based upon their investment objectives. The 22 mutual fund categories include the following: aggressive growth, balanced, corporate bond, flexible portfolio, GNMA, global bond, global equity, growth, growth and income, high-yield bond, income (bond), income (equity), income (mixed), international, long-term municipal bond, money market, option/income, precious metals, short-term municipal bond, state municipal bond-long term, state municipal bond-short term, U.S. Government Income (Investment Company Institute, 1987). In addition to the great variety of funds available, investment companies also differ in other characteristics, such as: shareholder services (IRA and Keogh accounts, telephone switching, automatic investing and withdrawal, etc.), sales loads and redemption fees, annual management expenses, portfolio management philosophies, minimum initial investment requirements, and the number of funds available within the investment company.*

<sup>2</sup> "The Standard & Poor's Composite Index (S&P 500) has been utilized as the model for virtually all the U.S. Index funds... Its 500 securities present a representative slice of corporate America, and its historical record has made it a fast rabbit on the performance track...judgement is used in selecting the firms and industries to be represented in the index. A committee of five employees of the Standard & Poor's Corporation (a division of McGraw-Hill) selects those securities. It does not religiously follow a buy-and-hold strategy. To maintain the magical number of 500, it removes firms that merge, declare bankruptcy, or lose investment favor, and it adds firms with favorable historical records" (Blume and Friedman, 1982, pp. 320-321).

The S&P 500 is used by virtually all the major investment advisory services and financial magazines as the general stock market index against which mutual fund performance is compared. The S&P 500 is not a random selection of securities, but represents the usual universe of stocks held by institutional investors (Fischer and Jordan, 1987).

<sup>3</sup> Investing in the Standard & Poor's 500 Index is easily done. As of 12/31/88 over \$31 billion was invested in mutual funds and retirement pension accounts designed to mirror the S&P 500 Index. The bulk of that total (\$29.3 billion) was in the College Retirement Equity Fund (CREF). By design, the year to year performance of CREF is almost identical to that of the S&P 500. (The authors found that regressing the yearly return of CREF and the yearly return of the S&P 500 over the period from 1953-1988 yielded a coefficient of determination, or  $R^2$ , of .947).

The remainder (almost \$2 billion) was distributed among at least four mutual funds which clone the S&P 500, the S&P 500 futures contract (traded at the Chicago Mercantile Exchange), and retirement accounts set up by banks (such as Wells Fargo) which duplicate the holdings in the S&P 500 Index. Indeed, many investors have chosen to diversify their investment dollar by utilizing mutual funds and retirement accounts which mimic this important market index.

<sup>3</sup> That is, the top performers among the funds on the 1976 Honor Roll. The best performing fund over this period (1976-1987) was Fidelity Magellan, which was not on the 1976 Forbes Honor Roll.

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