## Fund Performance

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- Sharpe (1966) looked at the performance of open-end mutual funds and found that to a major extent the capital market is highly efficient, but there is some evidence of persistence in performance.
- Jensen (1968) evaluated the performance of mutual funds in the period 1945–1964 and found no evidence of manager skill.
- Henriksson (1984) evaluated the performance of open-end mutual funds and concluded that their empirical results do not support the hypothesis that mutual fund managers are able to follow an investment strategy that successfully times the return on the market portfolio.
- Ippolito (1989) looked at mutual fund data and found evidence that is consistent with optimal trading in efficient markets. They concluded that risk-adjusted returns in the mutual fund industry, net of fees and expenses, are comparable to returns available in index funds.
- Grinblatt and Titman (1989) looked at mutual fund performance and tests indicated that the risk-adjusted gross returns of some funds were significantly positive.
- Sharpe (1992) described an asset class factor model, which makes it possible to determine how effectively individual fund managers have performed their functions and the extent (if any) to which value has been added through active management.
- Brown, *et al.* (1992) show that survivorship bias can give the false impression of persistence in mutual fund performance.
- Grinblatt and Titman (1992) looked at mutual fund data and found evidence that differences in performance between funds persist over time and that this persistence is consistent with the ability of fund managers to earn abnormal returns.
- Zeckhauser (1993) found that in the period 1974–1988 relative performance of no-load, growth-oriented mutual funds persisted in the near term, with the strongest evidence for a one-year evaluation horizon.

- Coggin, Fabozzi and Rahman (1993) examined the investment performance of US equity pension fund managers. They found that pension fund managers were good at picking stocks, but poor at timing the market. The best managers produced substantial risk-adjusted excess returns.
- Brown and Goetzmann (1995) explored equity mutual fund data and found clear evidence of *relative* risk-adjusted performance persistence; however, the persistence was mostly due to funds that lag the S&P 500, depends upon the time period observed and is correlated across managers.
- Elton, Gruber and Blake (1995) found that bond funds underperformed the returns predicted by a relative pricing model that they developed by the amount of expenses, on average. They note that there is no evidence that managers, on average, can provide superior returns on the portfolios they manage, even if they provide their services free of cost.
- Grinblatt, Titman and Wermers (1995) found that mutual funds which bought past winners (followed a momentum strategy) realized significantly better performance than other funds.
- Brown, Harlow and Starks (1996) looked at growth-oriented mutual funds and demonstrated that mid-year losers tend to increase fund volatility in the latter part of an annual assessment period to a greater extent than mid-year winners.
- Elton, Gruber and Blake (1996b) provide estimates of survivorship bias that can be used as benchmarks to determine the amount of bias in studies that do not take survivorship bias into account.
- Elton, Gruber and Blake (1996a) found persistence in risk-adjusted stock mutual fund returns.
- Ferson and Schadt (1996) advocate conditional mutual fund performance evaluation in which the relevant expectations are conditioned on public information variables. This method made the average performance of the mutual funds in their sample look better.
- Gruber (1996) seeks to solve the puzzle as to why investors buy actively managed open end mutual funds when their performance on average has been inferior to that of index funds. He suggests that the solution to the puzzle is that if managers have skill, future performance is in part predictable from past performance, and this management ability may not be included in the price.
- Ferson and Warther (1996) modified classical performance measures to take account of well-known market indicators (interest rates, dividend yields and other commonly available variables). This conditional performance evaluation makes mutual funds' performance look better.

- Goetzmann and Peles (1997) presented evidence that cognitive dissonance explains mutual fund investor inertia. That is, investor aversion to switching from poor performers may be explained by overly optimistic perceptions of past mutual fund performance.
- Carhart (1997) considered the persistence in equity mutual funds' mean and risk-adjusted returns. He concluded that the results do not support the existence of skilled or informed mutual fund portfolio managers.
- Daniel, et al. (1997) looked at the performance of equity mutual funds. Their results showed that mutual funds, particularly aggressive-growth funds, exhibit some selectivity ability, but that funds exhibit no characteristic timing ability.
- Indro, *et al.* (1999) reported that fund size (net assets under management) affects mutual fund performance and found that, in effect, 20% of nonindexed US equity funds were too small and 10% too large.
- Ackermann, McEnally and Ravenscraft (1999) examined hedge fund data from 1988–1995 and found that hedge funds consistently outperform mutual funds, but not standard market indices. However, hedge funds are more volatile than both mutual funds and market indices. Incentive fees explained some of the higher performance, but were not correlated with total risk.
- (Chevalier and Ellison 1999) found that mutual fund managers who attended higher-SAT undergraduate institutions have systematically higher risk-adjusted excess returns.
- Liang (1999) looked at hedge fund performance. "Funds with "high watermarks" (under which managers are required to make up previous losses before receiving any incentive fees) significantly outperform those without. Hedge funds provide higher Sharpe ratios than mutual funds, and their performance in the period of January 1992 through December 1996 reflects better manager skills, although hedge fund returns are more volatile. Average hedge fund returns are related positively to incentive fees, fund assets, and the lockup period."
- Edelen (1999) show that the common finding of negative return performance at open-end mutual funds is attributable to the costs of liquiditymotivated trading: open-end equity funds provide diversified equity positions with little direct cost to investors for liquidity.
- Blake, Lehmann and Timmermann (1999) analyzed a data set on UK pension funds. Their main finding was that strategic asset allocation accounts for most of the ex post variation of UK pension funds' returns. Moreover, the vast majority of funds had negative market-timing estimates.

- Wermers (2000) examined mutual fund databases and concluded that their evidence supported the value of active mutual fund management.
- Liang (2001) studied hedge fund performance and risk from 1990 to mid-1999. Hedge funds had an annual return of 14.2 percent in this period, compared with 18.8 percent for the S&P 500 Index, although the S&P 500 was much more volatile.
- Kothari and Warner (2001) argue that standard mutual fund performance measures are inadequate for detecting abnormal fund performance. They suggest using event-study procedures that analyze a fund's stock trades.
- Berk and Green (2004) derived a parsimonious rational model of active portfolio management. They state that "[t]he lack of persistence in returns does not imply that differential ability across managers is nonexistent or unrewarded or that gathering information about performance is socially wasteful."
- Bollen and Busse (2005) examine daily mutual fund data, consider quarterly returns and conclude that superior performance is a short-lived phenomenon that is observable only when funds are evaluated several times a year.

In total, for every paper that supports market efficiency (most of these were published before 1990), there are three that reject the EMH. Of the four papers that explicitly mentioned market timing (Henriksson 1984; Coggin, Fabozzi and Rahman 1993; Daniel, *et al.* 1997; Blake, Lehmann and Timmermann 1999), none of them found that fund managers were able to time the market. To conclude, it appears that stock picking is a worthwhile activity, whilst market timing is not. This bodes well for fundamental analysis (a method of forecasting markets through the analysis of relevant news), but poorly for technical analysis (the forecasting of market prices by means of analysis of data generated by the process of trading).

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