

WHY MUTUAL FUNDS PERFORM SO POORLY

The primary purpose for which mutual funds are acquired and held is for their expected good performance. Mutual funds are said to have "professional" managements which, presumably, provide the potential for investment results better than those that the layman might achieve by selecting his own individual securities and subsequently managing his portfolio himself.

Mutual funds, however, are saddled with two burdens which offset some, all, or more than, the performance benefits derived from the "professionalism" of their managements. The lesser of these two burdens is routinely measured in a mutual fund's "expense ratio" which includes its management fees, administration and operational expenses, and 12b-1 marketing fees.

MARKET IMPACT COSTS

Still greater burdens imposed upon mutual funds are what are known as "market impact costs." These are concessions in price to which all institutional investors are subject when they buy or sell securities by virtue of the large sizes of the positions they must trade. In addition to being functions of the sizes of their positions, the magnitudes of such concessions also vary with the "liquidity" of the securities traded which, in turn, is related to the "market capitalizations" of such securities. The market impact cost of a mutual fund transaction may vary anywhere from 1/2 of 1% to 20% of the value of the security traded.

The relative burden of market impact costs on a mutual fund's entire portfolio can be estimated, given the total size of its portfolio, the number of issues in its portfolio, the median market capitalization of the securities in which the fund specializes, and the rate of the fund's portfolio turnover (buying and selling).

PORTFOLIO TURNOVER

If one examines the portfolio practices of mutual funds, one is apt to be astounded by the high rates of turnover characteristic of most. In one study, large-capitalization growth funds had an average annual rate of portfolio turnover of 93%, which is equivalent to an average holding period for the stocks in these portfolios of just 12.9 months. Of particular fascination is the extraordinary rates of turnover of the more active mutual funds. The twenty-five most active growth funds covered by this study had portfolio turnover rates that ranged from 215% to 972% and averaged 320%, which rates translate into average holding periods of 24 weeks, 5 weeks, and 16 weeks, respectively. Clearly,

the detrimental effects of market impact costs on portfolio performance are exacerbated by such high rates of turnover.

Why, then, do mutual funds indulge in so much self-abuse?

One cynical, but plausible, explanation is that active trading is the mutual fund manager's "raison d'être." If an inactively traded mutual fund does well, it may be concluded that the manager's services were superfluous; if it does poorly, the manager will be blamed for inaction. On the other hand, if an actively traded fund does well, the manager is a hero; but, if it does poorly, it can be said that the manager at least tried.

There is, however, an even more compelling reason for these high mutual fund portfolio turnover rates. This issue is tax-related and, again, is a burden associated with the nature of the beast. If an investor purchases a mutual fund in a taxable account, he takes on the capital gains tax liabilities for the unrealized gains in the mutual fund portfolio.

For example, assume that an investor purchases \$10,000 in the shares of a mutual fund for his taxable account and that these shares have a cost basis to the fund of \$6,000. Assume that the market sector in which the fund is invested performs poorly, and a year later the investor's shares are worth only \$8,000. Assume, further, that, because of its poor performance, the fund experiences heavy redemptions and/or management decides drastically to alter its investment strategy; it sells securities and realizes \$2,000 in capital gains. In this case, the mutual fund investor has a \$2,000 loss but must pay a tax on \$2,000 in gains. In short, he must pay taxes on somebody else's gains. He can reverse the injustice only if he sells his shares and realizes his own loss.

Large unrealized capital gains, then, are clearly a liability for any mutual fund wanting its shares to be purchased by taxable investors. It is in the marketing interests of funds to keep these unrealized gains reasonably low, and they can do this only by selling securities in which they have gains.

Interestingly, the motivation for realizing gains in a mutual fund portfolio is diametrically opposite to the motivation for realizing gains in a personal portfolio. While the mutual fund manager is motivated to minimize the unrealized gains in his portfolio in order to attract new investors, the individual investor is motivated to minimize realized gains so as to defer or avoid capital gains taxes.

From a tax perspective for a taxable investor, a mutual fund may be said to function as a "Reverse IRA." Whereas a traditional IRA serves to defer the taxes on one's income, a mutual fund serves to accelerate the payment of taxes.

It is, of course, after the stock market has had a large rise that the magnitude of unrealized capital gains in mutual fund portfolios becomes an important consideration. It

is presumably because the stock market has performed so well over most of the past half century that mutual funds have had to employ such high turnover rates to keep their unrealized gain problems under control.

EFFICIENCY

The "efficiency" or "inefficiency" of a mutual fund portfolio, or the extent to which market impact costs and other expenses detract from its overall performance, may be estimated by comparing the fund's performance with some appropriate market index over some long period of time. For mutual funds invested in U. S. common stocks, arguably the most appropriate index is the Wilshire 5000 Total Market Index, as it is regarded as the most comprehensive index measuring the performance of the entire U. S. stock market. The equally-weighted, rather than the capitalization-weighted, version of the index also provides a more realistic portfolio performance benchmark, in that the size of security positions in actively managed portfolios are rarely, if ever, equated to their capitalization positions in the U. S. economy; and, for individual portfolios, prudent diversification usually dictates approximately equally-weighted positions. This benchmark, then, should indicate the expected performance of randomly selected, broadly diversified, unmanaged portfolios of U. S. stocks, with just as many such portfolios outperforming the benchmark as underperforming it. The inception date of this index is December 31, 1970.

The extent to which the burdens of market impact costs and other expenses offset the benefits of professional management in a mutual fund portfolio, then, can be effectively estimated, over time, by the degree to which the mutual fund underperforms the market index for the class of securities in which it invests.

MEASUREMENTS OF VALUE ADDED AND EFFICIENCY SHORTFALLS

It goes without saying that, by employing the services of a mutual fund, an investor hopes to achieve a level of performance superior to what he would achieve by selecting securities at random and then never managing his list. To the extent that a mutual fund provides an "above-the-market" level of performance, its professional management is said to "add value."¹ To the extent that a mutual fund fails to provide such performance, it may be said to suffer an "efficiency shortfall."

Unlike its other expenses, a mutual fund's market impact costs cannot be measured with precision, and so they are not reported in the institution's prospectus or sales literature.

¹ The amount of "above-the-market" value added to a portfolio's total return is referred to by the term "alpha."

Their magnitude can, however, be inferred collectively for mutual funds in general from tabulations such as the following:

<u>Average Annual Rates of Total Return Over the 43-Year Period 1971-2013</u>				
<u>Index</u>	<u>Nominal</u>	<u>Real</u>	<u>Shortfall</u>	<u>As % of Benchmark</u>
Consumer Price Index	4.70%	-	-	-
Wilshire 5000 Equal Weight Index	18.01%	13.31%	-	-
All Equity Mutual Funds	10.03%	5.33%	-7.98%	-60%
All US Equity Mutual Funds	10.30%	5.60%	-7.71%	-58%
All Non-US Equity Mutual Funds	9.57%	4.87%	-8.44%	-63%
All Global Equity Mutual Funds	9.90%	5.20%	-8.11%	-61%

SURVIVORSHIP BIAS

Even the foregoing comparisons appear to understate the collective underperformance of mutual funds because of an analytical handicap called "survivorship bias." This is the tendency for the reported data to be skewed in favor of the funds by the practice of mutual fund sponsors to merge or liquidate their lagging funds out of existence and so bury their track records with them. If a sponsor has Fund X which has done well and Fund Y which has done poorly, it need only have Fund X acquire the assets of Fund Y and the poor performance of Fund Y disappears from the record books.

INFERENCES RELATING TO THE EFFICIENCY OF THE SECURITIES MARKETS

Either of two conclusions may be drawn from the foregoing performance data:

1. If, as many scholars contend, the securities markets are "efficient"² and professionals cannot add value by actively managing a mutual fund portfolio, then, the figures in the above table labeled "Shortfall" represent the sum of the mutual fund industry's reported expenses and market impact costs.
2. If, however, as most mutual fund managers contend, the markets are not efficient, and so professionals can make enlightened purchase and sale decisions by identifying and exploiting underpriced and overpriced securities, then, the shortfall figures in the above table understate the magnitude of the mutual fund industry's reported expenses and market impact costs by whatever value these professional managers add.

² Supporters of the "efficient market hypothesis" assert that the price of every security in the marketplace already incorporates, discounts, or reflects all the information known (and that can be legally acted upon) with respect to that security, and so no investor, neither layman nor professional, can outperform the market in which he invests with a probability greater than that of random chance.

The fact that the shortfall figures have been rising in recent years may indicate that the mutual fund industry's market impact problems are becoming increasingly severe. This is not surprising, given the rapid growth in the size of mutual funds and the increase in the rates of their portfolio turnover.

THE MUTUAL FUND PERFORMANCE JINX

There are purported to be over 25,000 mutual funds available to the public for purchase. There are also many hundreds of sponsors, each with a stable of these funds. Each of a sponsor's funds pursues a different investment strategy. At any point in time, and over varying periods of time, merely by the laws of random chance, it is inevitable that some funds will have delivered higher returns than others. Those funds which have delivered the highest returns are given the greatest visibility by the many mutual fund rating services; and they are also the specific funds that their sponsors most heavily merchandise. As a result, massive amounts of money pour into them.

The laws of random chance, however, also indicate that, after a period of above-average performance, a fund will probably return to normalcy at best (referred to by mathematicians as a "reversion to the mean").³ Furthermore, after an influx of new money, the fund's outlook may be even less promising than normal. The formerly successful fund may be more likely than other funds to underperform. The source of the underperformance is the exacerbation of "market impact costs" associated with the larger amount of money now under management.

A mutual fund that has been showing a decreasing rate of performance, relative to the market in which it invests, is very likely the victim of this commonplace "performance jinx." In short, the very fact that a mutual fund has done well before one acquires it, may be the primary cause of its doing poorly after he acquires it. The validity of the mutual fund performance jinx is supported by some fascinating statistics showing that the average mutual fund investor experiences a rate of return that is less than half the rate returned by the mutual fund he owns.

Given that it is hard to believe mutual fund investors experience little over half the returns delivered by their funds, let us illustrate the above phenomenon with a hypothetical example: In Year 1, mutual fund "Red Hot" is small, has 10,000 shareholders, and returns 35%. As a result of its good performance, Red Hot attracts new money and, in Year 2, has 50,000 shareholders. As a consequence of its larger size, however, the fund delivers only 5% in Year 2. The fund has averaged a return of 20%

³ Numerous studies have actually demonstrated a negative correlation between the past performance of a mutual fund and its future performance, indicating that funds that have delivered an above-average performance in the past are more likely to be underperformers in the future.

per year⁴ over the two-year period, but the average shareholder in the fund has experienced a return of only 10% per year.⁵

In addition to the shortcomings of the vehicles in which they invest, then, it appears that mutual fund shareholders tend to be burdened with a form of mutual fund "whiplash" related to a misguided timing of their purchases and sales.

SUMMARY

Given that the mutual fund industry's performance figures, as published, are extremely poor; given that, because of "survivorship bias," the industry's actual results are even worse than those published; given that, because of misguided timing, most mutual fund investors themselves do little better than half as well as the mutual funds in which they invest; and given that the tax motivations and practices of mutual fund managers are inimical to the tax interests of their shareholders, it appears that such investors are playing with a deck that is stacked heavily against them.

CONCLUSION

At least one alternative obviously superior to the purchase of common stocks indirectly via mutual funds is the random selection, outright purchase, and unmanaged retention of common stocks directly, without the mutual fund as an intermediary.

Clifford G. Dow, CFA, CHFC, CFP®

*Chartered Financial Analyst
Chartered Financial Consultant
Certified Financial Planner™*

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⁴ $(35\% + 5\%)/2 = 20\%$

⁵ $[(1 \times 35\%) + (5 \times 5\%)]/6 = 10\%$