

Research Commentary

Mutual Funds and Portfolio Turnover

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From time to time, reports in the media and elsewhere raise questions about whether managers of stock mutual funds trade securities too frequently in the funds that they advise. One commentator has asserted that portfolio turnover is near record levels.¹ Others have recently reported that stock fund managers are turning over securities so frequently that the average holding period is a year or less.²

The trading activity of fund managers is important to fund shareholders because funds incur transaction costs whenever their portfolio securities are bought or sold. These costs can be explicit, as in the case of brokerage commissions, or implicit, as when a trade moves a stock's price in a direction that reduces the fund's gain from the investment. Whether transaction costs are explicit or implicit, funds must take into account all such costs when they report their returns. Costs arising from frequent trading reduce overall returns to fund shareholders if the trades do not add value. Trading securities also may produce taxable distributions for fund shareholders.

The frequency with which fund managers buy and sell securities is one of many factors that mutual fund shareholders and their financial advisers may wish to consider when evaluating a fund. The U.S. Securities and Exchange Commission (SEC) requires each mutual fund to report its *turnover rate* to help shareholders and their advisers evaluate funds. This rate is an indicator of how often a fund's manager trades securities.³ For example, an annual turnover rate of 100 percent indicates that the dollar value of the securities traded during a year equals 100 percent of the fund's assets.

This *Research Commentary* addresses two questions about portfolio turnover. First, are fund managers on average turning over their portfolios more frequently than in the past? Some commentators suggest an answer that uses an averaging method that is heavily influenced by a relatively small number of funds with high turnover rates. An alternative averaging method used here does not have this shortcoming, and shows that fund managers generally are not trading any more frequently than managers did 20 years ago.

The second question is what is the portfolio turnover rate that most shareholders actually experience in their stock funds? A close examination of mutual fund turnover rates and assets reveals that shareholders tend to invest in stock funds with lower-than-average turnover rates.

Turnover Rate for the Typical Fund

There is no "correct" amount of portfolio turnover that a fund should have. All mutual funds buy and sell securities, and they do so for a variety of legitimate reasons. Managers of index funds buy and sell securities to reflect changes in the stocks tracked by the indexes. Managers of actively managed funds trade securities in order to implement their funds' investment strategies. Managers of index and actively managed funds alike also buy and sell securities to accommodate the ebb and flow of investable dollars, as investors purchase and redeem shares of their funds.

Simple-Average Turnover Rate. There are more than 4,500 stock funds offered in the United States. To determine the average or typical fund's turnover rate, analysts must use some type of averaging technique to summarize the turnover rate of these funds. Analysts often use a "simple average." This method is a standard

¹ See remarks by John C. Bogle, "As the Index Fund Moves from Heresy to Dogma ... What More Do We Need to Know?" The Gary M. Brinson Distinguished Lecture, Washington State University, April 13, 2004.

² See "Fast Turnover of Stocks Does Not Add Up for Mutual Funds," *Financial Times*, September 7, 2004; and "Ahead of the Tape: Turn, Turn, Turn," *The Wall Street Journal*, September 30, 2004.

³ The SEC requires that the turnover rate be calculated by dividing the lesser of purchases or sales of portfolio securities for the reporting period by the monthly average of the value of the portfolio securities owned by the fund during the reporting period.

averaging technique that treats each fund equally in the calculation. Such an approach works well if the items being averaged—in this case the turnover rate of each stock fund—exhibit the standard textbook “bell-shaped” curve, with roughly an equal number of observations above and below the simple average, and with few observations that are very far from that average.

Turnover rates of funds do not fit this pattern, however, and the simple average accordingly is not the most accurate depiction of a typical fund’s turnover. First, there are many more funds with turnover rates below the simple average than above. Nearly three-quarters of all stock funds have a turnover rate below the simple average of 117 percent in 2004, and about half of all stock funds have a turnover rate of less than 60 percent in 2004 (Figure 1). The reason that most funds have a turnover rate below the simple average is that a small percentage of funds have turnover rates that are considerably higher than the simple average. Even though these funds with high turnover rates are a small

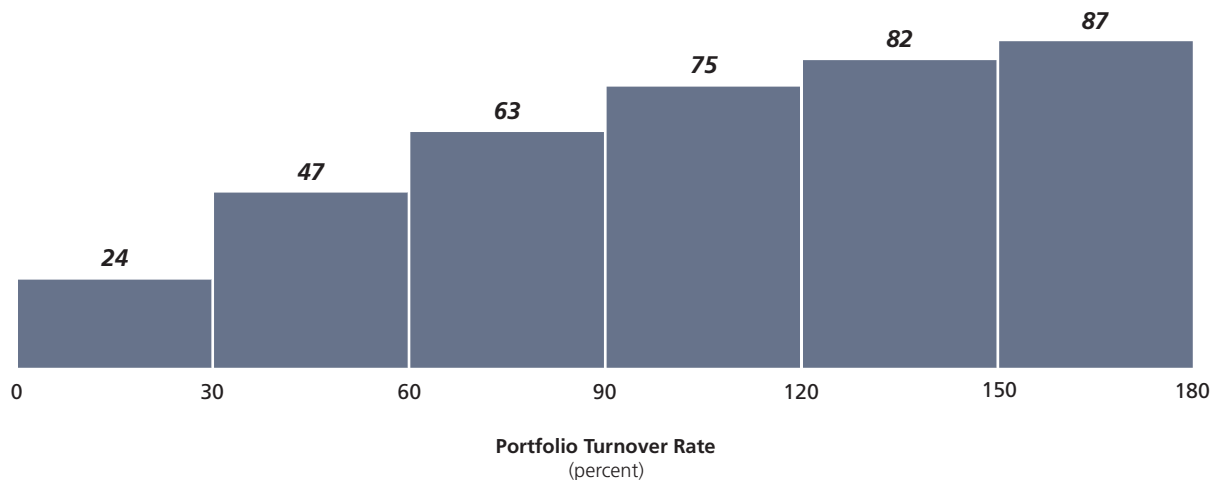
percentage of all stock funds, there are more of these funds than what is assumed by the standard textbook bell-shaped curve, and the turnover rates of these funds cause the simple average to overstate the trading activity of most fund managers. For example, excluding the 200 funds with the highest annual turnover rates—about 4 percent of all stock funds—drops the simple average by more than 40 percentage points to 76 percent in 2004.⁴

Many of the funds with the highest turnover rates trade frequently because they are designed expressly for investors who want to move in and out of the stock market quickly and frequently. These funds must regularly buy and sell securities to accommodate the purchase and redemption activity of their shareholders. The total assets of these funds tend to be small because they have fewer long-term investors than the typical stock fund. Both the higher transaction activity and lower levels of assets produce higher turnover rates for these funds. The managers of these funds often attempt to minimize transaction costs by using futures and options contracts.

FIGURE 1

Cumulative Percent of Stock Funds by Annualized Portfolio Turnover Rate, 2004

(percent of funds)



Source: Morningstar Principia Pro Plus (June 2004)

⁴ The simple-average portfolio turnover rate for 2004 is computed from data in the Morningstar Principia Pro Plus, June 2004 database. The turnover rates for 2004 are stated at an annual rate to make them comparable to earlier years. Only one share class of each multiple share class fund is included in the computation of the average.

Median Turnover Rate. The median turnover rate is an alternative to the simple average for characterizing the typical turnover behavior of stock funds. The median turnover rate is the rate at which half of all stock funds have a turnover rate above the median and half have a turnover rate below the median. Unlike the simple-average turnover rate, the median does not overemphasize the turnover rates of a small number of funds. The median stock fund turnover rate in 2004 is 65 percent, in line with the turnover rates observed during the past two decades (Figure 2).

In addition, the median turnover rate has not shown the pronounced increase that the simple-average turnover rate has exhibited in the past few years. A major reason that the simple average has risen since the 1990s is that fund sponsors in recent years have organized new funds specifically designed for investors

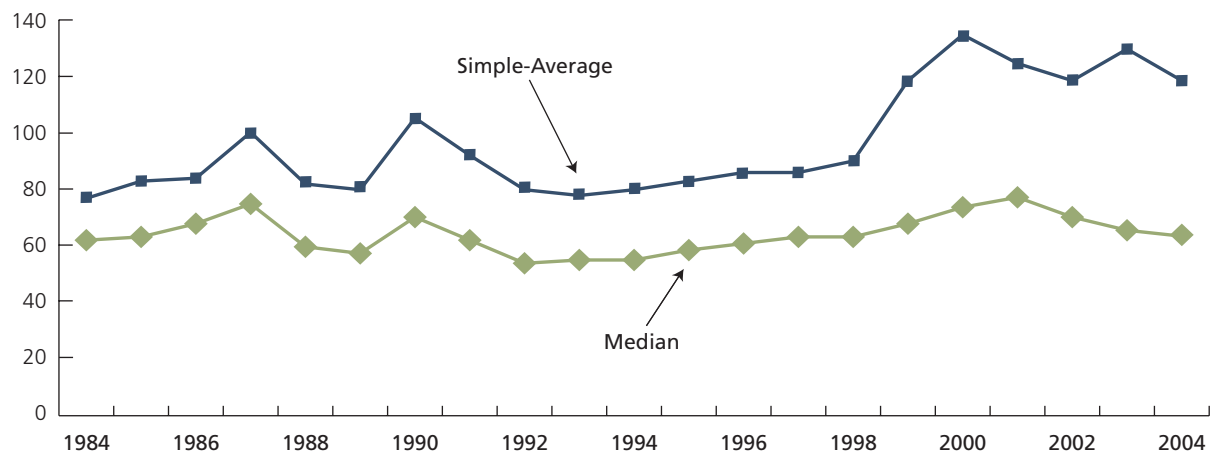
wishing to trade frequently. In addition, momentum investment strategies that entail higher-than-average trading volumes are more common now than 20 years ago. The introduction of these kinds of funds contributed to the increase in the simple-average turnover rate and exaggerates the change in the average fund's turnover rate.⁵

It is possible that the median turnover rate for stock funds has remained so stable because the introduction of index funds in the past 20 years conceals an upward trend in turnover rates among actively managed funds. Many index funds have turnover rates that are lower than the typical actively managed stock fund. Removing index funds does show that the turnover rate for the median actively managed stock fund is a bit higher than the median

FIGURE 2

Simple-Average and Median Stock Fund Turnover Rates, 1984–2004

(percent)



Sources: Morningstar Principia Pro Plus (June 2004) and CRSP University of Chicago, used with permission, all rights reserved (773.702.7467/ www.crsp.com)

⁵ Data for 2004 are from the Morningstar Principia Pro Plus and are presented at an annualized rate to make them comparable to earlier years. Data prior to 2004 are from CRSP University of Chicago, used with permission, all rights reserved (773.702.7467/www.crsp.com). Morningstar data could not be used for years before 2004 because Morningstar does not report data for funds that have been liquidated or merged.

turnover rate that includes index funds (Figure 3). Nevertheless, even if index funds are removed, the median turnover rate is not significantly higher in 2004 than it was in the mid-1980s, demonstrating that the introduction of index funds is not masking an upward trend in the turnover rate for actively managed stock funds.

Turnover Rates Experienced by Stock Fund Shareholders

To analyze the turnover rate that shareholders actually experience in their funds, it is important to identify

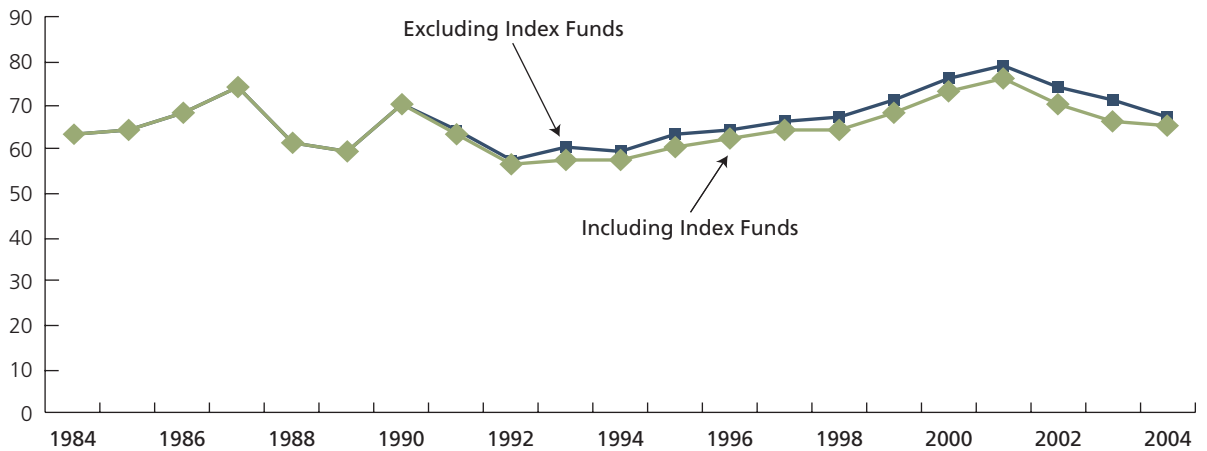
those stock funds in which shareholders are most heavily invested. Neither the simple average nor the median provides any indication of the turnover actually experienced by mutual fund investors because they do not take into account where stock fund assets are concentrated. For this purpose, a more appropriate measure is an “asset-weighted” average. This calculation gives more weight to funds with large amounts of assets and, accordingly, indicates the average portfolio turnover actually experienced by fund shareholders.

In 2004, the asset-weighted turnover rate for stock funds is 51 percent (Figure 4). Two-thirds of

FIGURE 3

Median Stock Fund Turnover Rates Including and Excluding Index Funds, 1984–2004

(percent)

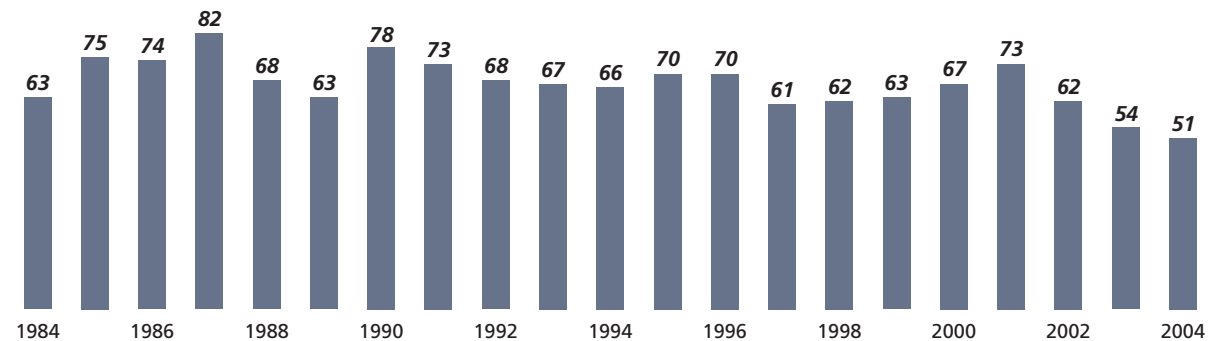


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FIGURE 4

Average Portfolio Turnover Experienced by Stock Fund Investors,* 1984–2004

(percent)



*Measured as an asset-weighted average annual turnover rate.

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stock fund assets were invested in funds with portfolio turnover rates under 50 percent (Figure 5). The asset-weighted average has been below the simple-average turnover rate for the past two decades, and has been below the median rate since the late 1990s. This reflects shareholders' tendency to own funds with below-average turnover or, put differently, the propensity for funds with below-average turnover to attract more shareholder dollars.

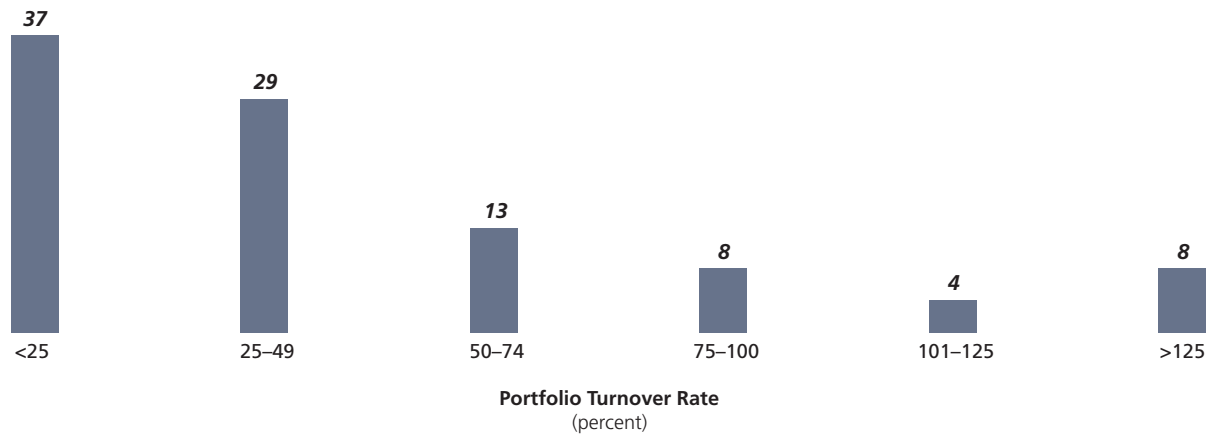
Performance competition among funds may help to explain why shareholders invest heavily in funds with lower-than-average portfolio turnover. SEC rules require funds to report their returns net of all costs, including those incurred in buying and selling securities.⁶ Funds incurring abnormally high trading

costs that are not recaptured through shrewd stock selection will experience sub-par returns and thus are less attractive to investors.

Conclusion

Mutual funds offer investors a broad range of investment options and employ a variety of investment strategies. Some investment strategies entail more portfolio turnover than others, and, in some cases, significantly more than in the past. Nevertheless, it seems fair to conclude that stock funds typically do not have more portfolio turnover than they did 20 years ago. Moreover, stock fund shareholders are predominantly invested in funds with lower-than-average portfolio turnover rates.

FIGURE 5
Percent of Stock Fund Assets by Portfolio Turnover Rate, 2004



Source: Morningstar Principia Pro Plus (June 2004)

⁶ In the case of equity securities, commissions incurred on stock purchases are added to the cost basis and those incurred in the sale of stock are deducted from the proceeds. In this manner, commissions impact and ultimately are reflected in a fund's reported performance.