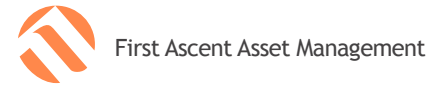


# Fund Fees & Expenses

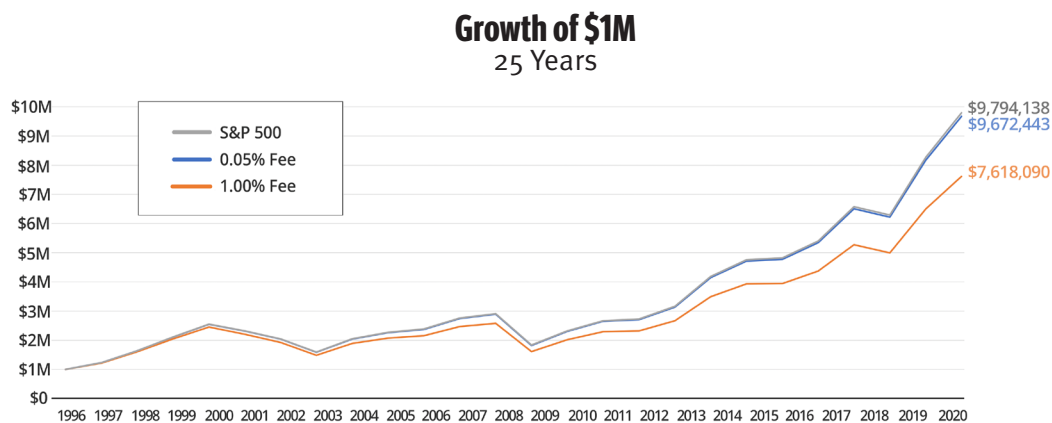


Fund fees and expenses are two of the most important factors to consider when investing. You can't control the direction of the financial markets, but you can control what you pay to invest.

## Fees Come Out of Your Pocket

Investment costs might not seem like a big deal, but they add up and compound over time. You lose the amount you pay in fees and the growth that money would have generated for years into the future.

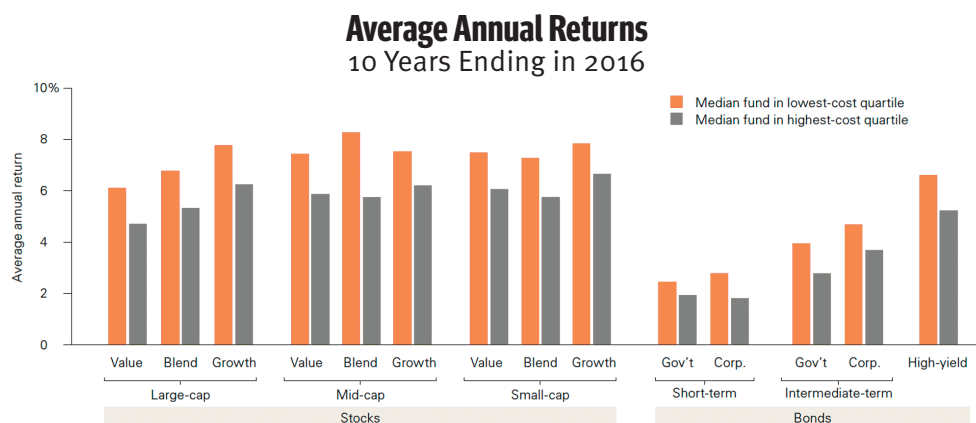
The chart below shows the growth of \$1 million invested in the S&P 500 index over 25 years. It also shows the return you would have received during that period if you had invested \$1 million in an S&P index fund with a .05% expense ratio vs. a fund with a 1.00% expense ratio.



Source: Morningstar and First Ascent Asset Management

## Fees and Performance

Studies have found that mutual fund and ETF expenses are a strong predictor of future fund performance. In every asset class over every period, low expense funds, on average, outperformed high expense funds.



Source: Vanguard calculations using data from Morningstar. All mutual funds in each Morningstar category were ranked by their expense ratios as of December 2016. They were then divided into four equal groups, from the lowest-cost to the highest-cost funds. The chart shows the ten-year annualized returns for the median funds in the lowest-cost and highest-cost quartiles. Returns are net of expenses, excluding loads and taxes. Both actively managed and index funds are included, as are all share classes with at least ten years of returns.

## Pay Attention to Trading Costs

It's also important to keep an eye on fund trading costs. The more a fund buys and sells securities, the greater those costs. So, it's important to track how frequently funds trade the securities that they hold.