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Does Dollar-Cost Averaging Make Sense for Investors?

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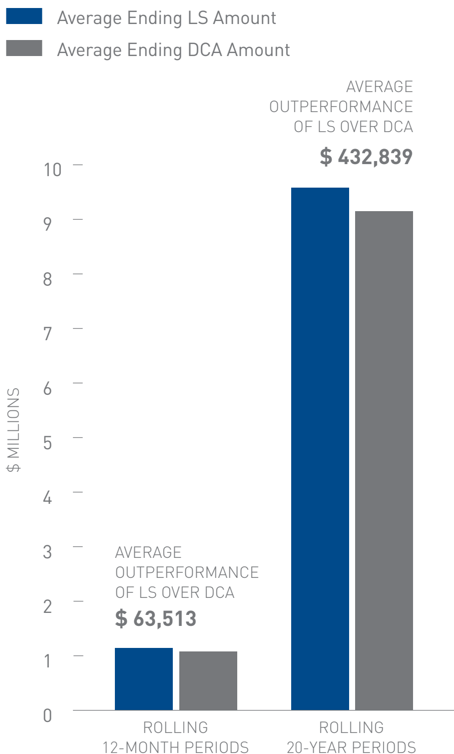
Average Ending Amounts for LS and DCA Investing

$1 Million Initial Investment

Jan 1, 1926 — Dec 31, 2017



Sources: S&P Indices, Gerstein Fisher Research

Let's say you come into a good chunk of money, such as an inheritance or cash from the sale of a house or business, and you plan to invest it in the stock market. Should you invest the cash all at once as a lump sum (LS), or should you spread out your stock purchases using a dollar-cost averaging (DCA) method?

Many investment advisors recommend the DCA approach to clients. The research department of Gerstein Fisher, the quantitative investment arm of People's United Bank, recently conducted research to compare, historically, the outcomes of the LS vs. DCA approaches.

First, let's be clear what we're talking about with DCA. Here, we're not referring to the common (and laudable) DCA approach of investing a portion of each paycheck in, say, a 401(k) or other retirement plan. Rather, we mean the practice of investing a chunk of money in smaller batches over time rather than investing all at once. As described in our methodology below, we're simply comparing two approaches to investing a chunk of money.

To compare performance, we back-tested DCA and LS methods during all rolling 12-month and 20-year periods from January 1926 to December 2017. We assumed an initial portfolio of $1 million in cash and used the S&P 500 Index as the investment proxy. For DCA, on the first day of each month for one year, we assumed 1/12 of the cash was invested in the S&P, whereas for LS all of the cash was invested on day one and allowed to compound.

The exhibit at left shows the results. For both 1- and 20-year periods, the LS method handily outperformed DCA. These results intuitively make sense since the LS portfolios spent more time fully invested and the stock market generally tends to have positive returns (the S&P 500 has risen in more than 70% of calendar years since 1926). For all 865 20-year periods, LS won in 73% of cases. LS also generated a much greater margin of outperformance than DCA did in the periods when it held sway.

Given that LS clearly generated better returns in the majority of historical periods, why do so many investors adopt the DCA method? We think there is a sound behavioral-finance explanation: loss aversion. Loss aversion is the tendency of investors to choose the option that minimizes the regret they would feel if they lost money.

To read our research on dollar-cost averaging and many other investment topics, please see www.gersteinfisher.com.