

## Key Factors of Mutual Funds' Performance

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*Abstract.* The demand for mutual funds is determined by their ability to convince investors to achieve their investment goals. Whether mutual fund managers can collect and analyze existing information in such a way as to select assets that yield returns above the market or not, that is a very significant question for both financial industry theorists and practitioners. For the latter, the solvency of mutual funds as investment institutions determines the choice between active and passive management of the investment portfolio. From the theoretical point of view, the answer to this question is an argument: "for" or "against" the validity of the theory of efficient market.

A significant part of researchers agree that actively managed funds, on average, lose to the benchmark. Among them are M. Jensen (1968) , Burton G. Malkiel(1995) , M. Gruber (1996) , M. Carhart (1997), Y. Fama and K. French (2015). As a part of this approach, the authors resort, among other things, to various ways to estimate the stability of deviations (both positive and negative) of mutual fund returns from market returns. For example, M. Jensen (1968) did not find confirmation of the fact that the resulting super-yield is usually being followed by further "beating" the market. Burton G. Malkiel also finds no evidence of stability of the results of mutual funds over a 20-year period in an article investigating the return on investment in mutual funds of stocks (Burton,1995).

But many researchers admit that certain categories of mutual funds may still have the ability to beat the market index. For example, Chen et al. (2000) find that funds that invest in growing assets are more likely to demonstrate the ability of the management team to identify areas that will generate super-returns. Wermers (2003) shows that the returns of funds with high asset turnover exceeded the returns of the S&P 500 from 1975 to 1994.

The recent paper (Artamonov et al., 2020) examines the impact of US government Treasury bonds yield on the return of mutual funds. Based on the sample from the CRSP database which consisted 376 American funds from 2006 to 2017 authors concluded that the yield of US government bonds is a significant factor for the mutual funds "alpha" (the difference between fund's and benchmark return).

Our sample was constructed from US funds over 14 years of observations from 2006 to 2019. We include funds which invest mostly in different US sectors with SP500 as their benchmark. To compare funds with active strategies and passive ones we use different types of time series models and dynamic panel data model with the dependent variable is excess return over the benchmark. It turned out that active funds didn't give significant benefit. Nevertheless, the spread between long term and short term US government Treasury bonds yield is a significant factor. This confirms that actively managed funds gain more on the expectation of the market's growth than the passive ones.

*Keywords:* mutual funds; S&P500 index; tracking error; government bond yields, active strategy, time series

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