

## Is There Too Much Benchmarking in Asset Management?

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Most funds in the asset management industry are managed against benchmarks. For example, over \$10 trillion is managed against the S&P 500 alone. Yet, there is no standard explanation for why benchmarking is so pervasive and only a handful of papers that study the effects of benchmarking. Our paper proposes a theory for why benchmarking would naturally arise and studies its consequences.

The starting point for our analysis is the observation that fund investors cannot perfectly deduce what fund managers' portfolios invest in and exactly how they earn returns. It is true that snapshots of portfolios are disclosed, but trading occurs all the time, so merely knowing the holdings on specific dates provides limited information.

More importantly, there are a variety of return-augmenting activities that managers can undertake to boost performance (generate "alpha"). Some examples include securities lending, which is very profitable, crossing trades of different managers in house and avoiding transactions costs, and watching the order book and providing liquidity to other market participants. These activities are costly for the manager and infeasible for individual investors to execute. So in order to realize these gains investors must delegate their money to asset managers.

For the fund managers there is some risk in engaging in any of these activities because the returns from all of them are uncertain and depend on market conditions that are outside of their control. Moreover, the investors cannot see what the managers are doing, so they do not know if they incurred the costs needed to boost returns or not. This means that if the overall portfolio returns are low, that could be because the manager chose to shirk and did not try to do any of the return-boosting activities, or it could be just because of bad luck.

To induce the manager to work on their behalf, the fund investors will want to pay for performance and condition some of the manager's fee on the overall return on the portfolio. This "skin in the game" creates at least some incentive to bear the costs needed to generate abnormal returns. This is still an imperfect solution to the problem because in that case bad luck will still reduce the fees. Exposure to this risk will lead the fund manager to shy away from trying to boost returns.

The resolution to this tension is to also condition fund manager compensation on the portfolio return relative to a benchmark. The presence of the benchmark partially shields the manager from risks that are outside of her control and creates incentives to undertake more of the return-enhancing actions. This logic is similar to the classic analysis of Holmstrom (1979) of why a principal might want to include a signal that is correlated with the output of an agent in the agent's contract.

The bulk of our analysis goes on to study the implications of how this kind of performance contract for fund managers will influence asset prices. The first important finding is that these contracts encourage fund managers to hold the same assets, pushing up their prices and reducing expected returns. Fund investors do not internalize the effects of contracts on asset prices, so when they all deploy such contracts they dull the effectiveness of the contracts because all the managers are incentivized to hold overpriced securities.

We next ask what would happen if the contract terms were set instead by a benevolent social planner. The planner would understand that the contracts affect equilibrium prices and generate crowded trades, which in turn means that the contracts provide less powerful incentives than the individuals believe. Accordingly, the planner's contract will rely less on both skin in the game and on benchmarks relative to the individual investors' contracts. By reducing incentive provision the planner also conserves on the costs incurred by the fund managers. So our model predicts that private contracts will lead to higher costs than contracts chosen by a planner.

The model can also be used to study benchmark design. The point of the benchmark in our framework is to insure the manager against risk incurred in generating higher returns. If we assume that these gains vary across securities, say, because portfolio lending opportunities' returns and costs vary, then the private contract would potentially put high weights on the securities where extra returns are highest (relative to the costs). A planner would again realize this will lead to crowding that will be ineffective once all contracts tilt in that direction.

Summing up, we conclude from our analysis that the combination of the moral hazard problem and the resulting benchmark contract to address it distorts asset prices via crowded trades. This crowding means the benchmark is less effective in providing incentives to fund managers and therefore private contracts do lead to excessive use of benchmarks.

"Moral Hazard and Observability." Holmstrom B. *The Bell Journal of Economics* 10(1), Spring 1979, pp. 74–91.