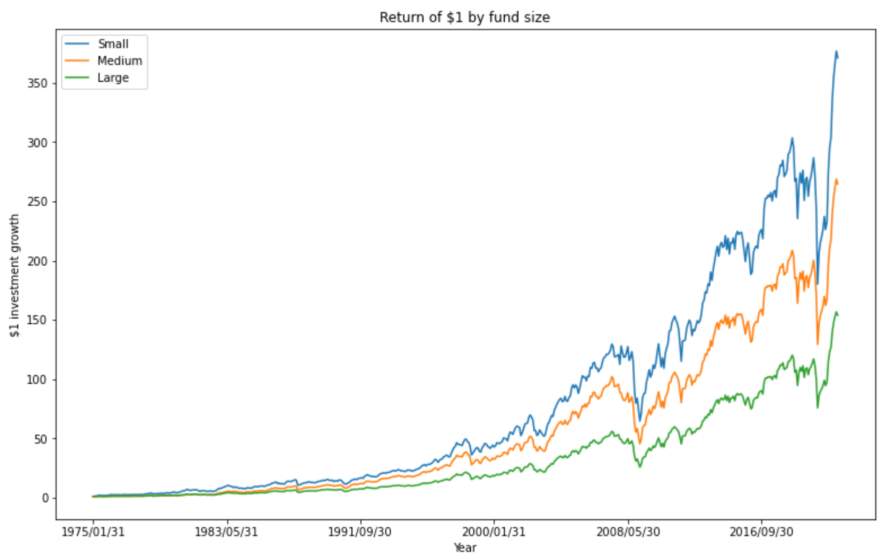
Executive Summary

Statement of Analysis

The purpose of our analysis is to determine the effect of fund size on Small-Cap Value mutual funds and their respective long-term performance. Based on initial intuition, smaller funds should have higher returns than larger funds that invest in small-capitalization securities. The reason for our intuition is that we expect larger funds to struggle to move capital around to adjust to market conditions effectively. However, we will conduct further analysis to determine the validity of our hypothesis.

Discussion

We gathered monthly mutual fund data and summaries from Wharton Research Data Services (WRDS) to accurately represent publicly traded mutual funds from 1961-2020. As a preprocessing step, we removed the data before 1975 because we determined it was too volatile and full of outliers. Next, we deleted data containing non-numeric values for returns. Finally, our analysis uses total net assets (mtna) as an indicator of fund size, which we readjusted monthly to account for fund and market growth.



As seen in the plot above, smaller funds have higher cumulative returns than medium and large funds. The spread between fund returns seems to grow larger as time goes on, magnifying the differences between the three. The most significant reason for small funds outperforming medium and large funds is that smaller funds can move their investments quicker than larger ones. Thus, smaller funds likely do not have to deal with liquidation price movements in illiquid markets as much as their larger peers. Lastly, smaller funds can effectively allocate capital as higher returns become more reliant on speed and technology.

Key Takeaway

In general, large small-cap value mutual funds' returns come with less variance, on average, than their smaller counterparts. However, smaller funds' returns are, on average, higher than medium and large funds. As we previously discussed, the differences in fund performance depending on size are likely due to capacity constraints, slow adjustments to asset allocation, and a lack of opportunities for larger investments. As a result, it is crucial to consider these factors when paying premiums for small-cap exposure in mutual funds.

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