

BNY Mellon Endowments and Foundations Performance and Asset Allocation Study

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Colleges, philanthropies, cultural institutions and many other non-profit organizations, with their mission-oriented purpose, play a significant role in society. In the United States in particular, they have historically made a big impact in education, health and many other areas. These institutions also share similar financial goals as they often strive to balance the two-fold objectives of supporting a stable stream of spending while preserving or enhancing the real purchasing power of assets in perpetuity. In this whitepaper, we analyze performance and asset allocations across a broad spectrum of endowments and foundations—both large and small.

While public attention tends to focus on a relatively small number of endowments and foundations with the largest holdings, the vast majority of institutions tend to have assets of less than \$1 billion. According to recent industry surveys, the median endowment for colleges and universities is approximately \$701 million, and foundations have a median asset size in the \$101 to \$500 million range. Assuming a conservative spending rate of five percent, institutions with these median asset holdings would support expenditures of about \$35 million and \$5 million to \$25 million per year, respectively. Even for larger universities with graduate and professional schools, the aggregate size of the institution's endowment can be misleading because donors often choose to place restrictions on the use of their gifts to specific schools or types of spending.

As one would expect, investment return and asset allocation strategy for endowments and foundations (E&Fs) can diverge greatly as a function of sheer size.

Institutions with smaller asset bases tend to have fewer in-house investment professionals. They can also find it more difficult to access private equity and other alternative investment options that have been utilized by the largest E&Fs.



With strong financial markets in 2017, and market volatility surfacing in early 2018, it is timely to delve deeper into the performance and allocation trends of larger versus smaller E&Fs, as segmented by their total asset size. This paper examines 85 E&Fs using aggregate data from BNY Mellon's Asset Strategy View® solution to observe performance and asset allocation for endowments and foundations.

While we recognize that E&Fs have unique investment objectives, foundations in this data set generally have less than \$1B in assets. While not broken out in more detail in this summary, we found that foundations in this data set tended to have assets less than \$1B and their performance and allocation trends tracked closely with endowments with less than \$1B in assets.

E&Fs in this study saw strong performance in 2017, with larger institutions outperforming their smaller peers by just over 1%.

PERFORMANCE TRENDS

Data gathered from this universe of 85 E&Fs showed an average performance return of 14.57% for the 2017 calendar year, with three-year and five-year returns at 6.92% and 8.19%, respectively. Figure 1 below provides more detailed information on returns of smaller (<\$1B) E&Fs versus their larger (>\$1B) peers. It is noteworthy to point out that larger institutions have outperformed smaller institutions in total by an annualized amount of 1.4% over a five-year period.

FIGURE 1—Average Performance for E&Fs for One (2017), Three (2015-17) and Five (2013-17) Year Periods

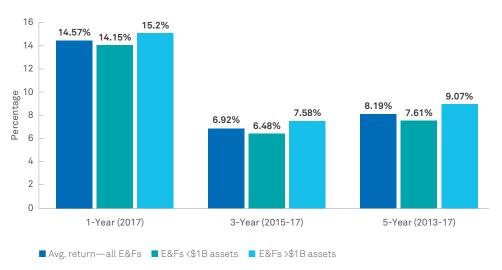


FIGURE 2—Five-Year (2013-17) Performance by Sub-Asset Class for E&Fs

| | Total Endowments and Foundations | Assets <\$1 Billion | Assets >\$1Billion | Differential |
|-----------------------|----------------------------------|------------------------|-----------------------|--------------|
| | N=85 | n=51 | n=34 | |
| U.S. Equity | 13.2 | 12.7 | 13.9 | -1.2 |
| Non-U.S. Equity | 8.0 | 6.9 | 9.1 | -2.2 |
| Global Equity | 10.4 | 10.7 | 10.1 | +0.6 |
| U.S. Fixed Income | 2.1 | 1.9 | 2.3 | -0.4 |
| Non-U.S. Fixed Income | 3.4 | 2.8 | 5.0 | -2.2 |
| Global Fixed Income | 2.0 | 1.7 | 2.1 | -0.4 |
| Hedge Funds | 7.0 | 6.4 | 7.6 | -1.2 |
| Private Equity | 11.8 | 10.4 | 13.1 | -2.7 |
| Real Estate | 11.0 | 11.0 | 11.0 | 0.0 |
| Other Real Assets | -0.2 | -1.4 | .9 | -2.3 |

Numbers are percentages

ASSET ALLOCATION TRENDS

Differences in performance between larger and smaller E&Fs can be attributed, in part, to divergences in asset allocation. Smaller E&Fs have taken larger positions in traditional equity and fixed income asset classes, while larger peers have invested more heavily in alternative investments.

FIGURE 3—Asset Allocation Percentages for E&Fs (ending December 2017)

| | Total Endowments and Foundations | Assets <\$1 Billion | Assets >\$1Billion | Differential |
|-----------------------|----------------------------------|------------------------|-----------------------|--------------|
| | N=85 | n=51 | n=34 | |
| U.S. Equity | 18.87 | 24.57 | 10.0 | 14.57 |
| Non-U.S. Equity | 14.57 | 14.18 | 15.18 | -1.00 |
| Global Equity | 6.73 | 6.17 | 7.59 | -1.42 |
| U.S. Fixed Income | 10.65 | 13.01 | 6.97 | 6.04 |
| Non-U.S. Fixed Income | 0.27 | 0.39 | 0.09 | 0.30 |
| Global Fixed Income | 0.99 | 0.99 | 1.00 | -0.01 |
| Other Fixed Income | 0.45 | 0.57 | 0.27 | 0.30 |
| TIPS | 0.72 | 0.80 | 0.61 | 0.19 |
| Hedge Funds | 20.49 | 17.67 | 24.87 | -7.20 |
| Private Equity | 14.64 | 11.63 | 19.33 | -7.70 |
| Real Estate | 2.80 | 1.69 | 4.53 | -2.84 |
| Other Real Assets | 2.96 | 1.93 | 4.57 | -2.64 |
| Cash | 3.58 | 3.89 | 3.10 | 0.79 |
| Other | 2.27 | 2.52 | 1.90 | 0.62 |

Numbers are percentages

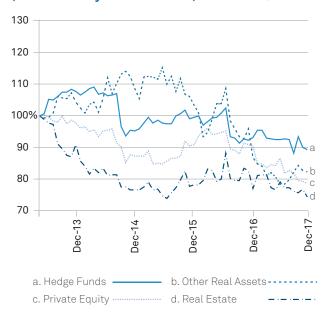
Over the last five years, larger institutions outperformed smaller ones by 1.4% on an annualized basis. This outperformance is consistent in nearly every asset class, with the largest differential being in alternative investments—most notably in private equities, hedge funds and non-U.S. equities.

Figures 4A to 4D show the trend-line for asset class allocation over a five-year period (2013-17). In Figure 4A, one can see that smaller endowments and foundations tended to increase their exposure to fixed income and equity over five years, while lowering their exposure to alternative assets. The largest declines were in real estate and private equity. Interestingly, for these smaller institutions, while performance in hedge funds was one of the lower performing alternative asset classes (6.4% five-year return as seen in Figure 2), smaller E&Fs, on average, maintained more exposure to hedge funds than to real estate and other asset classes within their alternative investment allocations (Figure 4B).

FIGURE 4A—Five-Year Asset Class Changes (since January 2013 baseline) for E&Fs <\$1B assets



FIGURE 4B—Five-Year Alternative Asset Class Changes (since January 2013 baseline) for E&Fs <\$1B assets

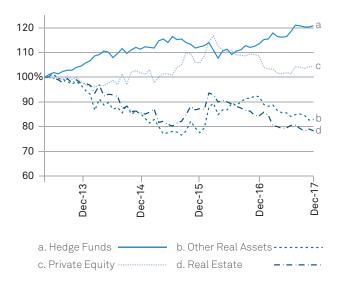


As seen in Figures 4C and 4D (next page), larger institutions, with over \$1B in assets, maintained relatively consistent allocations in equity and alternative asset classes over the last five years but reduced lower performing fixed income positions. Within the alternative asset classes, hedge funds and private equity exposures increased over the five-year period while real estate and other real asset classes saw dramatic declines.

FIGURE 4C—Five-Year Asset Class Changes (since January 2013 baseline) for E&Fs >\$1B assets



FIGURE 4D—Five-Year Alternative Asset Class Changes (since January 2013 baseline) for E&Fs >\$1B assets



SUMMARY AND OUTLOOK

This snapshot analysis of relative performance and asset allocation trends for E&Fs revealed a few key trends:

- E&Fs with less than \$1B in assets and those with more than \$1B in assets saw strong one-year performance in 2017 (14.15% and 15.20% respectively). These institutions benefited from their relatively large exposures to a buoyant U.S. equities market, which saw returns of 18.96%. The FTSE Russell 3000 benchmark return for 2017 was 21.13%.
- Larger E&Fs with more than \$1B in assets outperformed their smaller peers for the one, three and five-year time periods. These larger institutions also outperformed their smaller peers in nearly every sub-asset class.
- Larger E&Fs, over the five-year period (2013-2017), tended to maintain exposures to alternatives and equity, while significantly decreasing their holdings in fixed income. Meanwhile, their peers with less than \$1B in assets tended to increase their exposure to fixed income and equities, while lowering their exposure to alternatives dramatically. The steepest declines were in private equity and real estate.

To provide broader context for this analysis, for the larger universe of 116 E&Fs tracked by BNY Mellon, the 10-year average return ending December 31, 2017 was 5.35%.³ With this long-term return average in mind, it is important to note that with spending rates net of investment and administration fees averaging just around 4.4% per year for endowments and 5.4% and 4.8% per year respectively for private and community foundations, long-term returns are potentially insufficient to maintain the principal assets of E&Fs after spending, inflation and costs.^{4,5}

Larger institutions outperformed their smaller peers in nearly every sub-asset class. Clearly, E&Fs face ongoing challenges including performance, risk mitigation and fundamental choices about whether to choose an in-house versus outsourcing investment management model or a hybrid approach. In 2017, Harvard, the world's largest endowment, began to shift away from its hybrid model by dramatically scaling back its 230-person in-house investment staff and making other changes to reduce organizational complexity and outsource more of its investment portfolios. E&Fs of all sizes—large or small—are likely grappling with similar questions about how to best deploy their resources to achieve their investment objectives. Are there opportunities for larger and smaller institutions to share information about how to optimize their investment process and supporting operating models?

What best practices can be shared about investment tools, resourcing, governance and other areas among E&Fs?

E&Fs head into 2018 with some new challenges as a result of the recent tax overhaul passed in late 2017. Under the U.S. Tax Cuts and Jobs Act (TCJA), wealthy endowments face the new challenge of the 1.4% tax on their investment earnings. While the new tax only applies to private colleges and endowments with net assets of \$500,000 or more per student—only about 30 such institutions are immediately affected—that number is expected to grow in the next few years as endowment values grow. It remains to be seen how charitable and alumni giving will be affected by TCJA's increased standard deduction for individuals. With tax breaks allowable only for those who itemize—and fewer families expected to itemize their taxes—it is possible that some non-profit organizations might see a decline in donor funding with potential impacts on asset allocation.

E&Fs face myriad market and regulatory challenges in 2018, notably, the early months of 2018 showing increased volatility, tax reform impacts and anticipated increases in interest rates. With these dynamics in mind, BNY Mellon will continue to monitor and report on material trends in asset performance and allocation for E&Fs.



As a leading provider of performance and risk analytics solutions to a sizable universe of endowments, foundations and other institutional investors, BNY Mellon can help asset owners, consultants and asset managers understand peer comparisons in allocation and performance across various asset and sub-asset classes.

To find out more about how Asset Strategy View can help your organization access timely aggregated asset owner investment flow data and more, please contact: Sarah McCarthy at sarah.l.mccarthy@bnymellon.com.

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- 1 NACUBO—Commonfund Study of Endowments® (2017), page 7. National Association of College and University Business Officers and Commonfund Institute.
- ² 2016 Council on Foundations—Commonfund Study of Investment of Endowments for Private and Community Foundations®. Press release July 14, 2017. Retrieved from: https://www.commonfund.org/wp-content/uploads/2017/07/CCSF-2016-Press-Release-FINAL.pdf.
- ³ The 10-year return cited here is based on BNY Mellon's universe of 116 endowments and foundations, which consists of BNY Mellon client data and external sources. This data set was used to show longer term trends since Asset Strategy View®, the solution leveraged for most of this study, does not extend 10 years in history.
- ⁴ NACUBO—Commonfund Study of Endowments (2017), Figure 5.2A.
- ⁵ 2016 Council on Foundations—Commonfund Study of Investment of Endowments for Private and Community Foundations®, page 1. Press release July 14, 2017.
- ⁶ Harvard's New Fund Manager, Copying Yale, Will Farm Out Money," Michael McDonald, January 25, 2017. Retrieved from: https://www.bloomberg.com/news/articles/2017-01-25/harvard-says-endowment-will-outsource-most-management-cut-jobs.
- ⁷ "Estimating the Endowment Tax's Future," Rick Seltzer, January 5, 2018. Retrieved from: https://www.insidehighered.com/news/2018/01/04/dozens-more-colleges-will-pay-endowment-taxes-if-growth-rates-continue.

