Monograph Series

commonfund
INSTITUTE

Small Endowments versus Large: A Closer Look at Returns and Asset Allocation

INTRODUCTION

By Bob Bovinette

Due in part to the negative performance of many endowments during the recent bear market, investment committees are once again focusing their attention on asset allocation and related issues. At a recent symposium, Jack Meyer, CEO of Harvard Management Company (HMC), presented some highlights of HMC's approach to managing the Harvard endowment. They include:

- A knowledgeable, experienced and committed board that is focused on broad policy and strategic issues.
- A highly professional, experienced and dedicated staff of the size needed to manage, oversee and monitor the total endowment portfolio, especially the complex, labor-intensive investment strategies where transparency is more difficult to achieve.
- A staff to whom the board delegates full responsibility for implementing policy, including tactical shifts around established policy portfolio allocation ranges.
- A broadly diversified portfolio representative of all major asset classes.

When Jack was asked a basic question — "Can the rest of us be like Harvard?" — virtually all the panelists, including Jack himself, agreed that a $100 million endowment, in today's marketplace, could replicate the HMC approach, if the decision-makers favored the Harvard policy portfolio. I can't help but observe this is the same conclusion we reached at Commonfund years ago.

By ***Bob Bovinette****, President Emeritus, Commonfund and*
Richard G. Elkins*, Treasurer, Albuquerque Academy*

Because of the importance of this topic, I asked Dick Elkins, Treasurer of Albuquerque Academy, if he would be agreeable to having the academy be the subject of a case study that addresses the important issue of why the investment returns of smaller endowments don't mirror the returns of their larger counterparts. Following our discussion of the half dozen or so major reasons we believed to be the root cause of this performance differential, Dick's enthusiasm for this topic resulted in the following paper.

Since asset allocation remains a dominant influence in portfolio returns, it is our continued hope that investment committees will increasingly devote more agenda time to thoughtful and searching discussions around asset allocation, spending and risk, utilizing all available analytical tools and appropriate outside expertise.

Performance Expectations and Reality: Smaller Endowments versus Large Endowments

By Richard G. Elkins

The size of college, university and independent school endowments covers a wide range. Of the 657 institutions participating in the Commonfund Benchmarks Study® completed for the period ending June 30, 2003, 403 (61 percent) reported total endowment assets of $100 million or less. Another 182 (28 percent) of the institutions surveyed reported total endowment assets of between $101 million and $500 million.

Returns for endowments have also varied widely over the last 10 years, but there is one factor that is remarkably consistent: larger endowments generally capture superior performance compared to smaller endowments. The National Association of College and University Business Officers (NACUBO) 2003 Endowment Study reflects the following results for periods ending June 30, 2003:

Endowment Assets	1-year *(%)*	3-year *(%)*	5-year *(%)*	10-year *(%)*
Greater than 1.0 billion	4.1	-0.7	6.9	11.5
501 million – 1.0 billion	2.9	-2.3	3.1	9.3
101 million – 500 million	2.7	-2.8	3.1	8.8
51 million - 100 million	2.7	-2.8	2.1	8.1
25 million – 50 million	3.1	-2.3	2.4	8.1
Less than 25 million	3.5	-2.3	2.2	7.2

The investment results reported for the four time periods confirm that larger endowments outperformed their smaller peers in all environments — up markets as well as down markets. The result is that large endowments grow ever larger while their smaller counterparts remain small. The questions to be considered in this paper are, first, why such underperformance on the part of smaller endowments exists and, second, whether the underperformance is due to issues of flexibility and access or whether there are other reasons for underperformance that are not systemic, but rather are due to structural issues that are correctable.

In looking at the question of underperformance, several issues stand out, including the following:

- First, institutions with smaller endowments tend to devote a disproportionately smaller number of resources to the management of their assets. Schools with larger endowments tend to have professional employees, or at least full-time equivalent (FTE) employees, responsible for the management of the endowment. Smaller endowments, on the other hand, generally devote a fraction of an FTE to the management of their endowment. The result is that virtually no time is devoted to strategic planning for the endowment asset structure, further resulting in a relatively passive approach that either relies on a consultant for direction or on a committee of volunteers with neither the time nor the expertise to oversee the direction of the fund. Conversely, larger endowments are generally managed by experienced full-time employees who report to committees that usually include members who have substantial investment experience. Additionally, these committees tend to delegate the day-to-day management to the full-time professionals, reserving for themselves the responsibility of establishing endowment policy and direction.

- A second factor is the actual asset allocation of smaller endowments versus their larger counterparts. While larger endowments allocate their funds among a variety of asset classes, smaller endowments have historically relied on the basic asset classes of large capitalization equity and traditional fixed income. The resulting portfolios tend to be much less diversified and more volatile and, as a result, underperform portfolios with exposure to a wider range of asset classes.

- A third factor is the "fear of failure," or at least the fear of failing in an unconventional manner. There seems to be a view among many smaller endowments that it is more acceptable to face the prospect of mediocre returns, i.e., to fail conventionally, than to succeed unconventionally. While this fear can generally be traced to the legitimate concern of prudently managing the assets of an institution for which one has fiduciary responsibility, it is worth noting that the sole pursuit of the highly "traditional" asset structure may not represent best practices and is not a sound policy from a fiduciary standpoint given the prospect of underperformance and higher volatility.

- The fourth factor is a general misunderstanding and underestimation of risk. Widely published literature on endowment management generally defines risk as some form of volatility in the asset class being considered, or the overall volatility of the portfolio as measured by standard deviation. In the short term, the combined standard deviation of all the assets in a portfolio can provide a picture of the prospects for an endowment's performance, and can provide a method to measure the risk in a portfolio. However, when measured over longer periods, the range of the expected returns of a portfolio begins to narrow. Since endowments should be structured for the long run, perhaps a better focus of future discussion should be the risk of failing to meet the spending and return requirements for the endowment as established by the institution's board. Under this view of risk, the asset considered the least risky, U. S. Treasury obligations, might actually be the most risky.

Smaller endowments can think like large ones

Looking carefully at each of the above factors, it becomes clear that with a few modifications in endowment management strategy, smaller institutions could more nearly match their larger counterparts in endowment performance. For example, while it is true that smaller institutions will generally not be able to hire full-time investment professionals, it is the case that there are many investment professionals who are willing and anxious to contribute their expertise to an institution to which they have a tie. Since most investment committees meet on a quarterly basis, the time required of an outside volunteer professional is minimal while the potential impact is great. In addition, by assigning the day-to-day responsibility for the endowment to a qualified employee of the institution, more careful attention can be given to the endowment, increasing the potential for better performance.

Secondly, even the smallest endowments tend to be one of the largest assets of an institution. It is, therefore, only prudent to provide adequate resources to the management of that asset by taking advantage of the many educational opportunities offered by organizations such as Commonfund Group, NMS and others. These organizations provide in-depth conferences and educational programs throughout the year and in all parts of the country. At these conferences, employees or investment committee members responsible for the management of the endowment can gain insights into the latest thinking about endowment management and meet others who have similar issues to deal with at their institutions. Smaller institutions tend not to take full advantage of these opportunities out of budgetary concerns, not realizing the opportunity costs involved in passing up these educational conferences. NACUBO, Commonfund Institute and other organizations also provide a wealth of publications on the subject of endowment management that, taken together, can assist those responsible for smaller endowments to become familiar with best practices in endowment management. Topics in these publications range from investment policy development to asset allocation to developing a sound spending policy.

Likewise, smaller institutions, perhaps believing that they do not have sufficient resources to construct a diversified portfolio of assets, tend to rely on fewer asset classes. They tend to emphasize two asset classes — large capitalization common stocks and some form of fixed income allocation that is generally heavily weighted towards U. S. government obligations. The allocation between these two classes of assets generally ranges from 50 percent equity/50 percent fixed to a more aggressive mix of 70 percent equity/30 percent fixed. In any case, the performance of the portfolio will vary widely from year to year, depending on the performance of the underlying financial markets. During secular bear markets, a focus on the traditional asset structure often results in a performance level that does not equal the rate of spending from the endowment.

Funds-of-funds broaden access

To address this issue, over the last decade plus we have seen the emergence of “funds-of- funds” for virtually every asset class. These funds offer small and mid-sized endowments access to a wide range of asset classes that were previously unavailable at costs that could be considered affordable. As a result, a smaller institution has the ability to structure its endowment in a way that will maximize performance over the longer term, while substantially reducing the volatility of the fund — a practice of larger endowments for many years and a primary driver of their outperformance.

The fear of failure is a more difficult question to address. The Uniform Management of Institutional Funds Act (UMIFA), which has been adopted by most states, requires that trustees of institutions manage, or cause to be managed, the endowment assets of the institution in a prudent, safe manner. While there are some guidelines contained in the legislation, the definition of prudent and safe management is largely left up to the institution. If there is a major failure or loss, trustees are understandably concerned about their personal liability. Likewise, the old adage of "not on my watch" is very much the natural attitude of each board. In order to address any prevailing concerns about failure, it is important that a board educate itself about the critical elements of a well-managed endowment. Doing so will have the effect of removing many of the fears about the use of asset classes outside the "big two." Education will make it clear that adding international equities and fixed income assets, smaller capitalization stocks, and alternative assets — such as real estate, commodities, private equity and hedge funds — will actually reduce the volatility of the institution's portfolio while providing a greater potential return from the investments.

A careful analysis is likely to reveal that the biggest risk an institution faces is that of not having sufficient resources to carry out its mission. Larger institutions have addressed that analysis through the use of various optimization and simulation models that provide a picture of what the endowment could expect in the future. Historically, these tools have been used primarily by large, sophisticated organizations, but not by smaller ones. The fact is, however, that these tools are not only appropriate for smaller institutions, they are perhaps even more useful for them than their larger counterparts. Models that make use of Monte Carlo simulator to generate random changes over a wide range of time periods provide an institution with a range of expected results for a virtually limitless range of asset allocation structures. Using the information provided by this type of model, an institution of any size can construct an optimal portfolio that can be expected to reduce the risk of not achieving the financial goals of the institution.

Case study — Albuquerque Academy

At Albuquerque Academy, we have been concerned about endowment performance for many years. Recognizing that the school was committed to an aggressive mission that assures a blind admission policy; that encourages children from all walks of life to attend; and that is also committed to intergenerational equity, while consistently providing the very best educational opportunities possible, it became clear that a high performing endowment was critical to our success.

By the late 1980s, the academy had diversified its portfolio investments to include venture capital and investment-grade real estate to go along with its allocation to large, mid- and small capitalization equities and fixed income assets. In addition, there was a small allocation to international equity. The school had been the recipient of a large gift of land in the early 1960s, and the combination of selling much of that land and good investment performance had built an endowment of nearly $100 million by 1990.

In 1991, recognizing that the previous 10 years had produced unusually large equity returns, the academy commenced an evaluation of its asset allocation policy. Beginning with the asset structure in place at the time, several different allocation structures were examined. The results of the analysis showed that a major change to the asset allocation of the school's endowment would be required for the school to support its aggressive spending policy. Consequently, the amount allocated to international equity and venture capital was increased. In addition, further diversification of the school's domestic equity investment was accomplished quickly by increasing the allocation to a multi-strategy, multi-manager equity fund. At the time of the initial review, the responsibility for the school's endowment was led by the head of school and the chief business and financial officer, with oversight from the trustee committee for investments. In 1997, the governance structure for the responsibility for the endowment was modified. The chief business and finance officer became the school's treasurer, reporting directly to the Board of Trustees. In this role, the treasurer assumed primary responsibility for the day-to-day management of the school's endowment assets. In addition, an Endowment Management Committee was formed to work with the treasurer to oversee the school's financial and real estate assets. The resulting organizational structure provided the school with a more focused line of responsibility and greater overall attention to the management of the endowment.

Performance in line with expectations

Following the initial use of a Monte Carlo simulation-based asset planning model — the performance of the fund was carefully monitored. We found that the results closely matched the median expected return for the endowment for the period between 1991 and 1996. By 1996, the fund had grown to $167.9 million in total assets, including $65.4 million in directly held real estate and investments in the school's wholly owned real estate subsidiary. Because the nature of Albuquerque Academy's real estate allocation is so unique, those assets will be omitted from the rest of this discussion, and instead, only the financial assets of the endowment will be considered.

Comparing the academy's returns for the 10-year period ending June 30, 2003 reveals that its performance has been very competitive with the returns of much larger endowments.

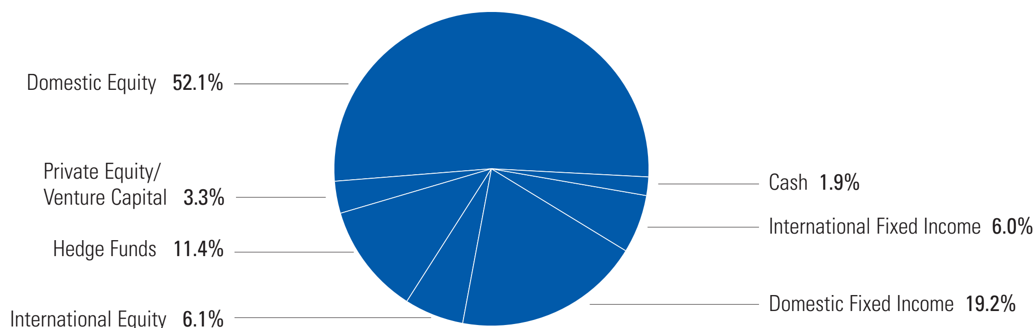
Endowment Assets	1-year *(%)*	3-years *(%)*	5-years *(%)*	10-years *(%)*
Greater than 1.0 billion	4.1	-0.7	6.9	11.5
501 million – 1.0 billion	2.9	-2.3	3.1	9.3
101 million – 500 million	2.7	-2.8	3.1	8.8
51 million – 100 million	2.7	-2.8	2.1	8.1
25 million – 50 million	3.1	-2.3	2.4	8.1
Less than 25 million	3.5	-2.3	2.2	7.2
Albuquerque Academy	**6.9**	**6.1**	**8.0**	**11.3**

Endowment Assets

Albuquerque Academy's results compare favorably to the results reported by the 2003 NACUBO (study published in 2004). In fact, for 10 years, returns for this relatively small endowment trail the returns of endowments with over $1 billion in assets by only 20 basis points. In five-, three- and one-year periods, the Albuquerque Academy endowment substantially outperforms the returns of the larger endowments. This level of performance can be attributed to a much more complex asset structure than is found in most smaller endowments, and one that is much more similar to the asset structure of larger institutions.

Asset allocation evolves

In the period between 1991 and the present, the asset allocation structure of the endowment has evolved from a fairly traditional 60 percent domestic equity, five percent international equity, 30 percent fixed income, and five percent venture capital and investment grade real estate to the following asset profile as of June 30, 2003:



The endowment uses a "core – satellite" strategy for its domestic equity investments. The core portion of the portfolio is provided by investment in Commonfund's equity funds and Equity Index Fund. The remaining equity assets, approximately 50 percent, are divided among micro-cap, small cap and mid-cap strategies actively managed by three investment advisors. Because we believe that over the longer term, smaller capitalization stocks will outperform larger capitalization equities, the fund has an unusually large weighting of those stocks — 50 percent. Even though smaller capitalization equities generally are more thinly traded than their larger capitalization counterparts, this reduced liquidity is offset by the long-term nature of endowment investing. During periods of underperformance in these asset classes, spending needs are covered by utilizing the more traditional asset classes of fixed income and large capitalization equity.

The other area of substantial outperformance has come through the use of hedge funds. Albuquerque Academy first invested in two hedge funds in 1998. The two funds selected are primarily fixed income and event-driven arbitrage funds, complemented by smaller elements of private placement, relative value and statistical arbitrage. For the five-year period ending June 30, 2003, the hedge fund returns are as follows:

Five Years	Three Years	One Year	2004 Year to Date
15.8%	10.7%	11.4%	8.3%

The school's hedge fund investment provided a stable rate of return during the very difficult periods of 2000, 2001 and 2002.

Monte Carlo simulator proves a useful tool

In reviewing Albuquerque Academy's endowment performance, much of the success can be traced back to insights gained by the Monte Carlo simulation analysis. The results of the model were used to determine an asset allocation policy that provided a greater opportunity for achieving the school's mission, while holding risk to an acceptable level. The result has been a portfolio that more closely resembles that of a much larger endowment, both from an allocation standpoint and a return standpoint. Of the lessons learned, perhaps one of the most important is that a smaller endowment can benefit by pursuing a diversified asset allocation policy and, indeed, has perhaps even greater freedom to pursue alternative assets than a larger institution. For example, the academy's allocation to micro-capitalization equities is only $10 million, an amount that if liquidated, would not adversely affect the market for the companies in the portfolio. However, that $10 million allocation is an amount that can provide a significant element of alpha to the overall portfolio in an endowment of this size.

In conclusion, contrary to traditional thinking, smaller endowments are able to produce endowment returns competitive with larger endowments. The key is careful management and, where possible, full-time attention to the fund by an employee of the institution. Other key factors are a governance structure populated by individuals who understand the nature of endowment management; a willingness to include alternative asset classes in the portfolio; and a clear understanding of the various elements of risk an endowment contains. Finally, consistent, thorough and honest communication between the staff and the investment committee is critical. Combining all of these important elements should result in an endowment that is structured to maximize the return to the institution while maintaining an acceptable level of risk.

About Commonfund

Founded in 1971, Commonfund is devoted to enhancing the financial resources of educational and other nonprofit institutions including endowments, foundations, healthcare and service organizations through superior fund management, investment advice, and treasury operations. Directly or through its subsidiaries, Commonfund Capital, Commonfund Realty, and Commonfund Asset Management Company, Commonfund manages approximately $30 billion for more than 1,500 educational institutions, foundations, healthcare and other nonprofit institutions, representing one of the largest pools of educational endowment and operating funds in the world. In response to the growing needs of nonprofit institutions, Commonfund, together with its subsidiary companion organizations, offers more than 45 different endowment investment programs including funds for the management of short- and intermediate-term operating cash reserves. All securities are distributed through Commonfund Securities, Inc. **www.commonfund.org**

commonfund
INSTITUTE

15 Old Danbury Road
P. O. Box 812
Wilton, CT 06897-0812

Tel 888-TCF-MAIN
Tel 203-563-5000
www.commonfund.org