Endowment-Spending Policies

This document addresses an issue of potential interest to MAS endowment clients and is for use in discussions related to the establishment of appropriate institutional spending policies. Stephen T. Golding joined MAS in May 1997, having served previously as Vice President for Finance at the University of Pennsylvania. The co-author of this article is Lucy S. G. Momjian, CFA, Associate Treasurer for Investments at the University of Pennsylvania.

Overview

With the extraordinary bull market of the past few years high investment returns have almost become a way of life. This has certainly been the case for university and college endowments which, on average, have recently provided extremely attractive returns. In light of these returns many investment officers may have assigned a secondary role to managing their endowment spending; after all, with such spectacular returns, setting spending policies may seem less critical than managing asset allocation.

We believe, however, that periods of strong market performance are an opportune time to manage spending because the markets cannot sustain this stellar performance. When the inevitable downturn does occur, institutions that have not been carefully managing their endowment-spending may find themselves in extremely awkward positions. In order to minimize the difficulties in such a situation, we advocate that managers thoughtfully examine the multiple factors influencing spending and adopt realistic endowment-spending policies that incorporate current economic conditions, long-term endowment goals, and institutional needs.

We begin this paper with an analysis of many of the factors that influence endowment-spending policies. Careful analysis is paid to endowment-spending objectives. We believe that endowment-spending policy should be systematically geared toward specific long-range goals, and this paper provides institutions with assistance in formulating such objectives. These objectives are carefully linked to specific spending strategies; various spending policies are reviewed with a focus on analysis of how these policies can help institutions attain their endowment objectives. We furthermore consider additional factors that affect spending decisions, such as the role of investment returns and the effects of higher-education inflation.

With these analyses in mind, we turn our attention to an in-depth discussion of how an institution can successfully strategize its endowment spending. Our research and our experience in this area have led us to the conclusion that variable actively managed endowment spending can be an advantageous policy, even in light of the continual pressures to employ endowment resources. This paper details how such a spending policy may result in superior and more consistent endowment growth than would occur with a more passive spending policy. We furthermore discuss how such a strategy could be used to incorporate individual program endowments and offer some suggestions for explaining such a policy to donors.
Background

Despite increasingly strong demand for higher education, colleges and universities currently face a variety of financial challenges. Among these challenges are public and trustee concern about tuition increases and tuition-discounting policies, legislative pressures on public institutions, and reductions in state and federal support. In addition, students are becoming increasingly consumer-oriented in the services they desire from higher-education institutions, resulting in the undertaking of a number of new and expensive student-service initiatives at many colleges and universities. As higher-education institutions seek to provide these new services, maintain funding for core academic programs, and contend with resource constraints, they are having to identify all sources of available operating capital. Increasing the spending rate of endowment funds is often considered one means of providing current resources to colleges and universities.

In creating endowment-spending policies institutions often face conflicting objectives. Donors and schools, for instance, may seek to maximize the spending from endowments, while investment committees often attempt to minimize spending in favor of endowment appreciation. Setting endowment policies requires balance and careful consideration because it is critical to have both investment and spending policies that are rational. The bull market of the past 15 years has made it possible to maintain endowment and spending growth at rates that have met or exceeded inflation rates for the vast majority of institutions. When a major market correction or shift comes, however, institutions may face greater challenges in attaining these objectives. In the face of this type of financial environment, establishing and managing endowment spending becomes increasingly more critical. This document reviews the purpose and structure of endowment-spending policies and offers some observations and recommendations on such policies as a means of assisting institutions in most effectively managing their endowment resources.

Managing for Total Return: The Connection Between Investing and Spending

Most investment officers at institutions of higher education attempt to manage their endowments by focusing on total return. This is a strategy with which we fully agree. What can often be overlooked in such a strategy, however, is the connection between investment and spending policies. Often institutions consider investment policy in light of their operating requirements, a dynamic that in our view may be problematic. In his book Investment Policy (Irwin Professional Publishing, Second Edition, 1993) Charles Ellis makes an extremely strong case for making spending policies dependent on investment results and policies. Mr. Ellis argues that "...spending decisions should most definitely be governed by investment results—which follow from investment policies." He goes on to argue that investment decisions should be separated from operating decisions because tying investment and spending policies to operating budgets limits the focus on total return. He concludes that there will always be institutional pressure to increase spending for operations and that "...only by separating portfolio operations from policy formation can responsibility and accountability be established for each of these two different aspects of investment management." We believe that Mr. Ellis' arguments present a strong case for considering spending policies as a corollary to investment policies.
Other Factors Affecting Endowment Growth

In addition to spending policy, there are two factors affecting endowment growth that will be briefly discussed: gifts to endowments and investment returns. The 1996 National Association of College and University Business Offices (NACUBO) Endowment Study which reflected input from 467 institutions with aggregate endowment assets of $123.2 billion, demonstrated that a significant portion of this aggregate endowment (46 percent) was controlled by 20 institutions (5 percent of the total number of institutions). Chart I highlights these results, in total and by size of institution, as reported by 345 (out of 467) of the responding institutions.

As Chart 1 reflects, the distribution of total gifts is skewed significantly toward large institutions; the top 14 percent (in number) of institutions received 46 percent of all gifts to colleges and universities in fiscal year 1996. This phenomenon to some degree reflects the larger development functions associated with such institutions. Investment performance is also skewed to the advantage of large institutions, suggesting a combination of greater resources and expertise devoted to investment management, increased diversification, and lower management fees. One should also note that gifts to endowments experience the same economic sensitivity as investment performance during economic cycles, primarily based on the donor's portfolio performance.

Endowment-Management and Spending Objectives

As these two factors (gifts and investment return) cannot be directly controlled by institutions, endowment-spending policy takes on an even more important role relative to endowment growth. In a report completed in 1996 (Can Endowments and Foundations Meet Their Objectives?, Association for Investment Management and Research) Ian Kennedy, Director of Research for Cambridge Associates, discussed the importance of spending policy and observed that though programmatic initiatives may vary among endowments each entity must address the following four variables: (1) time horizon, (2) capital-market returns, (3) asset allocation, and (4) spending policy. Although Kennedy believes time horizon to be the most critical of these variables in determining the ability of an endowment to reach its objectives, it is a variable, along with market returns, that remains beyond institutional control. Institutions can truly control only two of these variables: asset allocation and spending policy.

Institutions of higher education set endowment-spending policies in order to attain certain objectives. The most common objective cited by institutions is the maintenance of endowment purchasing power to ensure that endowment distributions keep pace with inflation. Other objectives of endowment-spending policy include maximizing total return within appropriate risk constraints, achieving smooth and predictable spending distributions, maintaining fair distribution of intergenerational equity, and recognizing sensitivity to donor wishes.
The 1996 NACUBO Endowment Study compared institutional spending policies by orientation:

**Income-oriented**
- Spend all current income (4.7 percent of total endowments)
- Spend a pre-specified percentage of income (2.1 percent)

**Market-value-oriented**
- Spend a pre-specified percentage of beginning market value (5.9 percent)
- Spend a pre-specified percentage of moving-average market value (63.5 percent)

**Budget-oriented**
- Increase spending over prior year’s by a pre-specified percentage (6.8 percent)
- Decide on an appropriate rate each rate &7.3 percent)

**Indeterminate**
- Other rule (8.9 percent)
- No rule (0.7 percent)

Income-oriented spending policies are based on income earned. It is quite possible that the use of such formulae could result in asset-allocation policies that are oriented more toward income and less toward total return than is optimal.

Although market-value structure may be somewhat appealing, institutions that use only beginning market value risk significant distribution volatility. Spending a prespecified percentage of moving-average market value, as the above data reflect, is the most commonly used type of formula, with 63.5 percent of respondents (the largest proportion ever) using this type of orientation. The major benefit of a moving-average-market-value spending policy would appear to be that it reduces the volatility of distributions and produces a stabilizing effect in declining markets.

Budget-oriented formulae may be related to prior years' distributions. Such a structure may be appealing from a budgetary perspective, but it is slightly less attractive from an investment perspective, because such formulae make investment decisions dependent on operational decisions.

General commentary on indeterminate orientations is difficult because they incorporate a variety of non-specific policies.

In Chart 2, an attempt has been made to classify the ability of each of these various types of endowment-spending orientation to meet the previously discussed key objectives of endowment-spending policies. Although we recognize that this chart is a subjective effort, we believe it is a useful depiction of these policies. This chart reflects our belief that policies based on moving-average market values and/or budgetary requirements better satisfy the objectives of endowment-spending policies than do other types of formulae, particularly those that are based entirely on income. Institutions may want to compare their spending policies in light of this chart to determine whether it agrees with their endowments' long-term objectives.
Endowment-spending policies relative to beginning-of-the-year market value reflect a median spending rate for fiscal year 1996 of 4.1 percent. This compares with a median rate of 4.7 percent in fiscal year 1988. Chart 3 summarizes spending rates from fiscal year 1988 through fiscal year 1996.' The data show that endowment-spending rates declined over this time period. It remains unclear whether this was a conscious decision or whether it simply arose by virtue of an increase in the denominator used against a moving average spending policy (which is the type of formula utilized by over 60 percent of institutions). Two other interesting observations can be drawn from these data: (1) Spending rates for institutions with smaller endowments have generally been higher than for those with larger endowments, although the disparity in spending rates between the smallest and largest endowments has decreased over time, and (2) spending rates at public institutions have generally been lower than those at private institutions.

In the case of point 2, additional anecdotal evidence suggests that many public institutions perceive endowments as marginal resources over and above more traditional revenue sources, such as state appropriations, tuition and fees, and sales and service revenue. Given the constraints on these resources in today's higher-education market, public institutions may soon face increasing pressure to raise their endowment-spending rates to pay expanding program costs.

Note that fiscal year 1994 data were computed by Cambridge Associates utilizing a different approach than utilized in the other years; it included items in addition to spending such as investment-management fees. The spending rates reflected in FY 1994, therefore, are not directly comparable with those for other measurement periods.

Endowment Spending As a Function of the Market

As suggested earlier, the bull market of the 1980’s and 1990’s has enabled institutions to meet expenditure and growth objectives with limited effort or strategy. The annual median NACUBO endowment return compounded for the 17-year period from FY 1980 through FY 1996 for endowments was 12.7 percent. This is significantly above average long-term investment returns. Ibbotson and Sinquefeld data on historical returns from 1926 through 1996, for example, suggest that equities returned 10.7 percent on average while corporate bonds earned a 5.6 percent total return. If we assume, for the purpose of this analysis, a 70%/30% constant endowment allocation between equities and fixed-income securities, the average annual return expected to be earned by an endowment would be 9.2 percent annually. Using this assumption, we can now analyze what would happen to spending, if/when capital-market returns revert to the mean and this 350-basis-point premium disappears.

With such a reversion the outlook for spending policy would not be good. Data on capital-market returns and the Higher Education Price Index (HEPI) were reviewed from fiscal year 1961 (inception of HEPI) through fiscal year 1996. If we assume asset allocations ranging from 65 percent to 75 percent in equities with the balance in fixed-
income securities and a spending rate of 5 percent of the three-year moving-average market value (a common policy among many endowments), annual and three-year growth rates for income and for real market values (as deflated by HEPI) were positive less than 50 percent of the time. These findings are reflected in Chart 4.

Inflation: Different at Each Institution

Although HEPI has averaged 0.7 percent over the CPI since its inception, there is evidence that HEPI may not accurately capture institutional inflation rates. Data assembled at the University of Pennsylvania's Graduate School of Education (Tierney, Michael, The Quality of Educational Services: An Aggregative Approach, June 1997) suggests that during the 20-year period from 1975 through 1994 inflation rates at certain types of institution (private research universities, public research universities with hospitals, and private doctoral-granting institutions) increased at rates up to 2.6 percent above even HEPI.

This phenomenon resulted from increased student demand for such institutions during this time period. This demand was motivated by the notion that these "high-quality" institutions could provide a significant net-present-value benefit to students in terms of potential incremental earnings. This escalating demand enabled institutions to increase tuition, which then surpassed traditional measures of inflation. This higher tuition revenue was invested in institutional quality improvements such as additional or more specialized courses, student-life initiatives, etc., which resulted in further increases in demand. Hence, the quality-maximization/cost spiral continued during this time period. It is important to note that this phenomenon was not skewed toward only a few institutions among each of these classifications but rather was relatively broad based. This is reflected graphically in Chart 5.

Strategizing Endowment Spending

We believe that for development of an effective endowment-spending strategy active management of spending is essential. Investors must understand their institutional inflation levels or cost drivers and should develop investment strategies that attempt to maintain endowment purchasing power in light of the challenges stated above. Clearly, high rates of educational inflation make it increasingly difficult to establish a spending policy that protects the endowment against erosion of real value. With the prospect of reversion to the mean in terms of capital-market returns and of cost increases in higher education that are greater than traditional measures of inflation, we recommend adopting a realistic spending rate in the current environment. This rate should be below the institution's threshold spending rate, the rate established by estimating a long-term endowment total return (net of investment fees and the administrative costs). As an example, assume that a total return of 10 percent is the long-term threshold return an institution develops on the basis of its long-term asset allocation strategy. If we assume an institutional inflation rate of 5 percent, a threshold spending rate of 5 percent of market value would be the appropriate long-term target.
We believe that an effective strategy is to manage the spending rate in such a way that permits a "war chest" (or stabilization reserve) to be built during periods of extended bull markets by driving the spending rate (as a percentage of market value) below the threshold rate. By virtue of an increase in market value this strategy allows the actual dollars spent to increase at a rate up to, or in excess of, whatever inflation index (e.g., the CPI) is deemed appropriate for that institution. The difference between the threshold rate and the amount actually spent could be accounted for separately but could remain within the endowment with the goal of maximizing investment revenues. A more conservative and lower-return strategy would be to liquidate this reserve from the endowment. When a bear market comes these reserves could be used to allow the spending rate to drift gradually upward (potentially above the threshold value) and could provide real stabilized budgetary support. If the institution does decide to remove these funds from the endowment, the investment committee should establish investment guidelines for these funds to ensure their availability in times of need.

A variable spending policy was tested by chaining a period of ten extremely strong years (1982-1991, when the average annual return was 17.3 percent, with a 70%/30% equity/fixed-income allocation assumed) to ten relatively weak years (1937-1946, which produced an average annual return of 4.6 percent at the same allocation ratio). Chart 6, which compares a variable spending policy with a fixed one, shows that both the spending distribution and market value of the endowment grew somewhat more rapidly with a managed spending policy then with a constant spending policy. Spending distribution under a variable-rate policy also grew much more smoothly than it did under a constant-rate policy. Note, however, that because a three-year-moving-average market value was used for the constant policy this policy resulted in an even smoother distribution than these might otherwise have been. It is critical to note that this model reflects time periods of extended bull and bear markets; in periods of extreme upward and downward volatility managed spending policies become increasingly challenging. It should also be recognized that this model has the advantage of having ax-post-facto selection and judgment embedded in it.

An institution could base the mechanics of driving the spending rate lower, or allowing it to drift higher, on the difference between actual endowment returns and estimated long-term returns within predetermined spending and/or spending-increase bands. Many institutions now use such a "snake in the tunnel" type of formula (Spending Guidelines for Endowment Income, Ballam, S., and Forrester, R., NACUBO Business Officer, November 1987). To successfully implement this type of strategy, an institution must account for the spending reserves separately in order to prevent erosion of real endowment value. Clearly, a reserve must be created before a market downturn.

One potential difficulty with this strategy is that although it could be effective for the overall endowment it could be less effective for individual-program endowments. If, for instance, an individual-program endowment were established early in a bear market, a spending rate for this individual endowment that was higher than the threshold spending level could erode the real value of the endowment. In the July 1997 NACUBO Business Officer, William Spitz offers an interesting solution to this problem, namely, that
different schools within a college or university sell options to one another based on their need for endowment income. Although the institution may want to set the overall guidelines for instituting such a process, individual schools/centers could undertake their own economic analyses to determine the value of these incremental revenues to their program requirements in light of the cost of repaying these loans. In this model the institution must do its own cost/benefit analysis to determine whether this is the most cost-effective capital to use in supporting its operating programs.

Donor Management

Another challenge faced by institutions that adopt a policy of active endowment-spending management is explaining such a policy to donors. When rates of investment return are high, donors often want large amounts to be spent from the endowment. This, however, is the time when spending rates should be made more conservative and an institution should build up its "war chest" for the future. Rather than focusing on the spending rule, we believe it is more appropriate for donors to focus on the growth of real spending and real endowment value over time. Spending formulae are not "user friendly" in most cases, and it is critical for investment officers to demonstrate that they are meeting their fiduciary responsibilities of funding programs, protecting endowments resources, and supporting future spending requirements.

Alternative Investments and Illiquidity

Another concern in terms of spending policy is the increasing use of illiquid and alternative investments such as private-equity, venture-capital, or LBO funds. Although these investments often offer attractive risk/return characteristics, their illiquidity is a challenge to spending-rule (and rebalancing) policies. These investments cannot generally be liquidated to meet endowment-expenditure requirements. In the context of asset-allocation, rebalancing, and spending-rule policies, one must understand the characteristics of these investments, monitor them closely, and develop cash-flow projections to the extent possible. Options for managing spending policy in light of this illiquidity, while minimizing changes in asset allocation, could include one or more of the following: (1) using incoming cash flow from the endowment to meet the expenditure requirements that would come from alternatives, (2) using the most closely correlated liquid investments as a source of cash to meet expenditure requirements, or (3) investing in alternatives in amounts less than optimal recognizing the need for liquidity.

Conclusions

There is no single correct approach to endowment-spending policy. Such a policy should be able to accommodate differing market conditions and institutional spending requirements. Some institutions rely on fixed algorithms to determine their spending policies, trusting that such a policy will protect against sudden decisions based on momentary economic pressures. For some institutions such practices may be the most appropriate approach, given their broader financial-management practices.
We, however, believe that our research indicates that by actively managing their institutions’ spending policies institutional leaders and investment committees may be able to increase both spending distribution and endowment market value while simultaneously smoothing budgetary growth and resource allocation to critical academic programs and student services.

We advocate such active management during periods of both strong and weak economies because setting spending policies requires an act of balance between current needs and future requirements. Should imbalance occur, we believe, it is safer to err on the side of limiting current endowment expenditures, given the fact that once the funds are spent from the endowment they cannot be recouped. This strategy would ensure that the budget would not be exceeded during strong times and would simultaneously prevent the budget from starving during weaker times.

In addition to the total-return and budgetary benefits of an actively managed spending policy, we believe that by adopting such a policy investment officers would become more involved in the economics of both the endowment itself and of the institution as a whole. By carefully considering the economic factors affecting endowment spending, investment officers should gain a better grasp of all aspects of the endowment—knowledge that can only help them in their strategic management. Furthermore, an active spending policy will necessitate communication between the investment and operating branches of the institution. Such conversation can ensure that the institution is following coherent and consistent economic policies.

As an institution reviews its long-term asset allocation, so too should it continue to review its spending policy. We believe that these two factors are interrelated and that each one is critical in determining the total returns of the endowment.

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