

**An Excerpt from a White Paper**

**on**

**Effective Endowment Management for  
501(c)(3) Institutions**

**Using Critical Ratios  
as Long-Term Planning Tools**

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August 2017

# Chapter 1

## Introduction and Overview

Endowment management is a relatively young concept. Serious consideration to both the maintenance and utilization of an institution's endowment began in the 1970's. Today, an institution's endowment is understood to be not merely an additional level of its financial security, but an absolutely critical part of it. In fact, a well-managed endowment may well be the only guarantee of its survival.

While the absolute size of the endowment is important, more significant is the degree to which the endowment is able to fulfill the demands placed on it. Generally, that can be determined from the endowment's "coverage ratio," defined as the total endowment divided by the institution's total annual operating budget. While there are other popular financial metrics, this ratio is the most accurate measure of financial strength and provides some surprising findings for many institutions.

An endowment can only be utilized effectively, however, when it functions as an integral part of the whole financial picture. Historically endowments have been defined as "funds donated to an institution as a source of income." However, "endowments" should be thought of in broader terms. There are really three "endowments":

- 1) The monetary endowment of donated funds;
- 2) The physical endowment of property and owned material; and
- 3) The intangible endowment consisting of quality staff, loyal graduates and supporters, and other non-material but nonetheless critical assets all of which make up the non-profit's reputation.

In order to stay competitive, an institution's net endowment growth must keep pace not only with inflation, but with a rate of cost increase that typically significantly exceeds inflation. Furthermore, non-profits are under great pressure to continually improve their plant and programs to pace with their competition. This formidable fiscal and logistical growth imperative can be daunting.

Skillful management of all three endowments can leverage an institution's financial footing to secure its future stability. The objective of this White Paper is to lay out a strategy for managing the three endowments to their fullest potential.

# Chapter 2

## Background of Endowment Management Theory

### 2.1 Permanent Endowment Income

In 1974, Nobel Prize-winning economist James Tobin wrote the seminal work in endowment theory, titled "What Is Permanent Endowment Income?" Its approach is quite simple: an

endowed institution must have a zero rate of time preference, meaning that a dollar spent in the future is valued at the same level as a dollar spent at the present. “Permanent endowment income” is that endowment income which can be guaranteed sustainable at the same real level indefinitely. According to Tobin, endowment income is comprised of cash income (i.e. dividends, interest, rents) from the endowment plus a small amount of capital gains realization. In other words, Tobin’s “permanent endowment income” is simply the cash yield.

Tobin lays out two further rules to ensure that calculated endowment income is truly permanent. First, “current consumption must not benefit from the prospects of future gifts to the endowment.” Permanent endowment income can take into account *only* the current size of the endowment, and even then only the part of the endowment which is capitalized which excludes any gifts given for immediate use. Second, other sources of income—such as a university’s tuition or a theater’s box office receipts—are variable. They cannot be taken into account when considering the future levels of endowment income. Permanent endowment income can then be informally defined as the most conservative estimate of sustainable real income from the endowment.

By basing “permanent endowment income” solely around cash yields, Tobin’s formulation is explicitly designed to insulate endowment income from swings in the values of securities and other holdings. In fact, it insulates endowment income from the *current value* of the endowment, emphasizing instead the endowment’s yield.

In a follow-up piece to Tobin’s published in the same year, Robert Eisner is critical of Tobin’s theory. Eisner criticizes the idea that only cash income can be viewed as a “permanent” part of endowment income. Eisner points out that over some historical periods (such as 1948–1961, when the S&P 500 Index increased by 270%), a strategy based on Tobin’s findings would mean ignoring huge increases in the market value of the endowment. Tobin’s formula takes market value appreciation into account only as long as cash yield grows in line with share value. This has not been the case for the last twenty years when the dividend yield on the American stock market fell while market values rose. Following Tobin’s strategy during this period would have led to a ballooning endowment but relatively low annual “permanent endowment income” which would have benefitted future students at the expense of current students.

## 2.2 Long-Run Financial Equilibrium

The Hopkins/Massy Long-Run Financial Equilibrium model<sup>1</sup> is a substantially more complicated and comprehensive budgeting system. It addresses not only endowment income but also the problem of maintaining a balanced budget.

In the Long-Run Financial Equilibrium (or LRFE) model, there are four significant factors affecting an institution’s budget in any single year:

- Its total expenditures;
- Its endowment;
- Its endowment income; and

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<sup>1</sup>Originating in 1976 with Massy’s paper, “A Dynamic Equilibrium Model for University Budget Planning.”

- The amount in gifts received by its endowment.

“Rate-of-change” variables that impact how these four significant factors change from year-to-year. These “rate of change” variables include cost and operating income increases, the total return on its endowment and most crucially, the endowment payout rate.

One of the major concepts of the Hopkins/Massy model is “budget enrichment” which consists of new programs, construction, deferred maintenance or other enhancements that add real value to the institution. Examples of budget enrichment include a new academic department at a university or a new wing at a museum. Because budget enrichment leads to real improvement in the quality of the institution, it is perhaps the single most fundamental goal of institutional management. It is generally viewed as one of the most challenging to meet because it has compounding effects on the budget with the capacity to throw it significantly out of balance.

Formulas can be applied to these variables based on both their values in the current year their rates of change. To calculate levels of total expenditure, endowment payout rate, budget enrichment for any three-year period a system of simultaneous equations is used.

However, it should be clear that the LRF model assumes not constant cash return (like Tobin’s) but rather the ability to make constant total return which is an even more implausible condition particularly because an LRF-balanced budget is very much at the mercy of the market value of its endowment.

While both the Tobin and Hopkins/Massy endowment management theories have contributed important insight, they ultimately fall short of providing a simplified planning method that simultaneously provides for the budget enhancement and financial stability that all institutions require. In the next section, we will introduce a practical approach that enhances the concepts outlined above.

## Chapter 3

### The True Endowments

The most fundamental insight for successful endowment management is the recognition that an institution’s endowment really encompasses all the resources crucial to its future. Accordingly, an institution has not just its one endowment, but three:

- 1) Its monetary endowment (financial assets, set aside for present investment and future use);
- 2) Its physical endowment (physical plant and property); and
- 3) Its intangible endowment (skilled staff, loyal graduates and patrons, and above all, its local and global reputation).

The challenge of balancing these three interdependent resources is the fundamental problem of endowment management. For example, a college’s or university’s reputation and its ability to attract students and donors depends to largely on the combination of professors, researchers and coaches it can recruit as faculty (part of the intangible endowment) and the quality of the

facilities provided for them (part of the physical endowment). At any time there may be a temptation to make sacrifices in the area to benefit another, but an institution that lets its physical plant or its reputation deteriorate will find its donations falling and its upkeep costs rising.

This three endowment concept applies not only to institutions of higher learning but to the entire range of non-profit institutions as well.