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Demystifying Endowments

by

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Endowments of major universities such as Cornell have received much attention over the past few years. Last academic year, the U.S. Senate Finance Committee launched an investigation into the finances of universities with endowments that exceeded \$500 million dollars and required all of these universities to file reports detailing their finances. Underlying this investigation was some Senators' belief that the universities should be spending more from their endowments to increase their institutional financial aid budgets and limit their tuition increases.

This year, our nation's financial meltdown and the reported large declines in the values of the endowments at many universities (including Cornell) have led to story after story about how universities are slashing their budgets, freezing faculty and staff salaries, cutting faculty and staff employment levels (often by attrition but sometimes by layoff), and slowing down, or stopping, building projects. But in spite of all of this attention, many people do not really understand what endowments are, how they are used, how they are invested and the investments managed, how decisions are made about how much to spend from them and why the reported declines in endowment values are having such

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profound effects on Cornell and other universities. So when the editor of *Cornell Magazine* asked me to write about these issues, I gladly agreed.

Endowments are stocks of financial and real assets that are held by universities to generate income for both current and future operations. “True Endowments” are assets that at the time they were initially given to the university were specified by the donor to be held by the university in perpetuity. Hence over time only the cumulative sum of the income plus capital gains that they have generated for the university can be spent by the university. When endowment values are publicly reported by universities they usually include “funds functioning as endowments”; these are funds that the university has decided to treat *as if* they were endowments, but if the needs of the university ever required that the principle of these funds be spent it is free to do so. On June 30, 2008, about one third of Cornell’s endowment was actually funds functioning as endowment.

It is useful to think of an endowment as a mutual fund (and indeed Cornell’s endowment is structured exactly in this way). A donor makes a gift to the endowment which buys a number of shares in the endowment. Over long periods of time when average returns have been positive, the restriction that the initial principle of a true endowment can not be spent is usually not a constraint on university spending from endowment. However, when endowment values decline rapidly, as they have done over the last year, this restriction may well kick in for recently received endowments whose current value has fallen below their value when they were received by the university; under this circumstance no expenditures can be made from these endowments until they regain their original values.

While the public (and politicians) often thinks of an endowment as a saving account which can be used by universities for whatever purpose they wish, nothing could be further from the truth. Donors often place very specific restrictions on the use of their gifts. Whether or not these restrictions really are restrictions on what the university does depends upon the nature of the activity and the nature of the restriction. For example, if a donor provides an endowment to support undergraduate financial aid and the sum of the endowments for undergraduate financial aid that a university has generate spending that is less than the amount that the university wants to spend on financial aid, then the legal restriction on the donor's endowment that the university makes expenditures for financial aid from the endowment really is not a true constraint on university behavior. Similarly, if a donor provides an endowment to support an endowed professorship in economics and the university would have employed at least one professor of economics anyway, that endowment does not restrict the university's behavior at all. In contrast, if a donor provides an endowment to hire an economist who studies the economics of higher education and in the absence of that endowment the university would (erroneously in my view) not place a high priority on employing faculty with interest in this topic, then the endowment truly is a restricted endowment both legally and in practice. Not surprisingly, universities try to encourage donors to make the uses of their endowments as broad as possible.

Table 1

Endowment and Endowment per Student at Ivy League Institutions

University	Endowment (in billions of \$) June 30, 2008^a	Endowment Per Student (in \$) 2006-2007^b
Harvard	36.6	1,774,875
Yale	22.9	1,983,641
Princeton	16.3	2,228,257
Columbia	7.1	337,398
Pennsylvania	6.2	317,336
Cornell	5.4	276,222
Dartmouth	3.7	664,705
Brown	2.6	350,226

^a 2008 NACUBO Endowment Survey (National Association of College and University Business Officers, 2009) (www.nacubo.org)

^b 2008-2009 Financial Plan: Operating and Capital (Cornell University, May 2008), table K (<http://dpb.cornell.edu>)

Table 1 shows the size of the endowments that the 8 Ivy institutions held as of June 30, 2008 (before the financial meltdown). Harvard's was over \$36 billion and Cornell was the 6th largest at about \$5.4 billion. Once one controls for the size of the student body one sees that Princeton was the richest Ivy the previous year, with over \$2 million dollars in endowment per student, while Cornell was the poorest, with less than \$300,000 per student. Not all Ivy Institutions are equal; the Ivies consists of relatively richer (Harvard, Yale, Princeton and Dartmouth) and relatively poorer (Columbia, Penn, Brown and Cornell) cousins.

The share of an institution's operating budget that comes from its endowment depends, among other things, upon its endowment's value, the spending rate from its endowment, and its other sources of revenue. Data that the Ivy institutions submitted to the Senate Finance Committee last year indicate that the average spending or payout rate

(spending from the endowment as a share of beginning fiscal year market value) during the FY2000 to FY2007 period was 5.375% for Cornell; the highest among the Ivies. The richest three Ivies had average payout rates that were much lower over the same period, varying from 4.062% to 4.38%. Payout rates tend to be lower at richer institutions because they do not need to generate as much spending from each dollar of their endowment to support their current operating budgets. Given the return on an endowment and its rate of growth due to new gifts, lower spending rates lead to higher rates of growth of the endowment; this is one of the reasons that the disparity in endowment wealth among the Ivy institutions has increased over time.

In spite of their lower payout rates, this year Harvard, Yale and Princeton each is generating between 35 and 45 percent of its budget from its endowment. Cornell, which has a large volume of external research funding and (declining) state appropriations for its four contract colleges, is generating 11 percent of its budget from endowment. So the tremendous fall in endowment values that is occurring is affecting Cornell's richer competitors more than it is us in the short run, although they have more leeway to increase their payout rates to partially offset their decline in endowment values than we do.

How does a university decide how much to spend from its endowment? It must balance the needs of the current generation with the needs of the future. To provide future generations with protection against inflation, the endowment for a specific funded activity (e.g. a professorship in economics) must grow over time by the average rate of inflation faced by the university. If the percentage investment return from the endowment (net of investment costs and the administrative costs associated with the endowment,

including stewardship requirements such as reports to donors) was constant over time, as was the rate of inflation faced by the university, then to preserve the real purchasing power of endowment spending, the payout rate should be set equal to the difference between the endowment's investment return and the rate of inflation faced by the university. Over long periods of time, this difference has been in the range of 4 to 5 or more percent and this is where the Ivy spending rates cited above came from.

Investment returns are not constant and endowment values do not grow smoothly over time. If universities based their spending each year only on the beginning of the year value of their endowments, their spending from the endowment would fluctuate wildly over time. To try to "smooth" out the flows of spending coming from the endowment over time, most universities apply a desired spending percentage to the average value of their endowment over a number of quarters (often twelve). Cornell's spending rule is somewhat different but it operates using an analogous "smoothing" principle.

These types of smoothing rules never envisioned a decline in investment returns of the type our economy is now experiencing. If for example, the endowments of universities wind up falling by 33% (optimistically) this fiscal year and then stay flat for two more years, by the third year spending from an endowment that followed the twelve quarter rule described above would have declined by 33%.

Universities do not have the option of cutting back their expenditures on the activities supported by an endowment by that much. For example, if spending from an endowment covered the cost of an endowed professor's salary, the reduced spending from the endowment over the three year period would require the university to finance part of the professor's salary (and the salary increases granted to her over the three year

period) from other funds. Or given Cornell's financial aid policies, if the spending from our endowments dedicated to financial aid declines, we will have to make this up by spending more of our unrestricted operating funds (primarily tuition revenues) on financial aid. So cut backs in endowment spending will invariably affect all operations of the university and lead to cuts throughout the university, not cuts in just the activities that are financed by the endowment. For an institution like Cornell that currently obtains about 11 percent of its budget from endowment income, a 33% reduction in the endowment spending would create almost a 4% gap in the budget. For a richer institution that gets 45 percent of its budget from its endowment, the budget gap would be 15%. Of course the richer institutions had lower spending rates to start with and if they increase their spending rates to Cornell's level, that would reduce a good share of their short-run problem.

Universities with large endowments took a lot of heat from the public and politicians during the booming markets of the 1990s and most of the first decade of this century because when endowments are rapidly increasing a spending rule (of say 5%) of the average value of the endowment over the a number of years, will lead to a much lower spending percentage out of the current value of the endowment. Perhaps because of this heat, or because they realized that they faced important needs for additional funds to improve financial aid programs and for strategic academic priorities, a number, including Cornell, decided to discretely "jump" their payout rates several times over the last two decades to get them closer to their desired spending rate as a function of the current value of the endowment. In retrospect, the institutions might have been better served if they had resisted the pressure and stuck to their spending rules.

Even if an endowment is a restricted endowment, an increase in the endowment spending rate may benefit activities of the university other than the one the endowment is supporting, because endowments sometimes fail to provide enough spending to support the total cost of their activity. For example, the spending from a restricted endowment for a professorship may not provide enough resources to cover the cost of the professor's salary and benefits; if this occurs, part of the cost of the professor must be covered by the university's unrestricted revenues. If the spending rate is then increased, the university can reduce its support of the professor from its unrestricted revenues and use the savings it achieves for other purposes. Universities try hard, of course, to only accept new restrictive endowments whose spending will cover the entire cost of the activity

Investment returns do not fall off of trees; they depend upon general market conditions and the skills of the people managing the investments. At Cornell, fiduciary responsibility for the endowment falls to the Trustees and they take this responsibility very seriously. The Investment committee of the Board, of which I am not a member, makes decisions on how to allocate the portfolio across broad asset classes and periodically rebalances the portfolio to take account of changes in the shares of the portfolio that have occurred in different classes due to differences in past asset class performance and to take account of their judgments of the likely future returns in different asset classes.

Table 2

Distribution of Cornell's Endowments across Asset Classes as of June 30, 2008

Asset Class	Percentage of the Endowment
Hedged Equities	19.1
Real Assets	14.6
Foreign Equities	13.9
Private Equities	13.8
Fixed Income	13.7
Domestic Equities	10.8
Absolute Return	9.5
Cash and Cash Equivalents	4.1
Other	0.5

Source: *2007-08 Financial Plan: Year End Variance Report* (Cornell University, November 2008). P15
(Available at <http://dpb.cornell.edu>)

Table 2 indicates how Cornell's portfolio was distributed across asset classes as of June 30, 2008. At that date, the largest shares of the University's portfolio was in hedged equities (investments open to a limited range of investors that often may be leveraged and that can use short selling and hedging methods), followed by real assets (real estate and commodities), foreign equity, private equity (equity in operating companies that are not publicly traded), fixed income, domestic equity and absolute return (funds that aim to produce a positive absolute return regardless of the direction of financial markets by investing in cash or other low volatility assets and then taking hedged long and short positions in portfolios of other securities that when combined are expected to have only modest exposures to market risk). Less than 5% of the portfolio was in cash and cash equivalents.

If one had looked at a similar endowment of an academic institution 25 years ago, it would have been invested in a much narrower set of assets –primarily domestic and foreign equities, bonds, real estate and cash. The inclusion of the broader range of asset classes in today’s endowments derives from the increasing sophistication of money managers and the broader range of investment vehicles that are now accessible; a leader in the movement to include diverse investments such as hedge funds, commodities, and private equity was David Swenson, who has managed Yale’s endowment since the early 80s and achieved extraordinary success.

In addition to worrying about managing the portfolio’s returns, the Investment Committee must worry about the liquidity of the portfolio. Liquidity is important to help the university meet its cash flow needs and during the financial meltdown these needs were exacerbated because a decline in asset values potentially can lead to pressure to sell assets for short-term reasons (the need for cash to meet endowment spending needs) even if such sales do not make sense in terms of long-term investment returns. In addition, investments in some of the asset classes may include commitments by the University to provide additional investments in those areas if requested and limitations on the University’s ability to rapidly withdraw funds from them. The Investment Committee of the Board has been working virtually nonstop to reallocate the portfolio in a way that it believes makes sense for the long-run and also provides for necessary cash flow. Some universities, for example Harvard and Princeton, have taken out substantial taxable long-term debt as a way to ensure their liquidity and also to protect themselves from having to sell off endowment assets, which they believe will generate returns that exceed the

borrowing costs over long periods of time. Cornell recently decided to pursue a similar policy, albeit at a much smaller level.

While the Investment Committee allocates the endowment across asset categories, they do not actually manage the money themselves. The vast majority of Cornell's assets are managed by external investment fund managers. The Cornell Investment Office, which reports to the Investment committee, allocates assets within each asset class to a number of different external managers. Within a class, managers that are high-performing receive, up to a limit, more assets to manage, managers that are low-performing see a cut back in the assets under their management.

The expansion of endowments into the broad range of alternative investments was an effort by universities to increase their average rates of return without increasing the riskiness of their portfolios. And, in spite of popular articles about failed investments by some universities in these alternative asset classes, on balance, to date university endowments (including Cornell's) have not declined by as much as broad stock market indices have. How recent history will affect the allocation of endowment assets at major universities is an open question, but it is important to emphasize a fundamental rule about investments; past performance of an asset class only matters to the extent that it is believed to be an indicator of future performance given perceptions of market conditions.

Wide fluctuations in market valuation do call into question whether the spending rules of university endowments need to be altered. For example, wide fluctuation in endowment values may suggest the need to base spending on a longer period of endowment values to provide less variability in the flow of spending coming from the endowment. A few universities already do this. The University of Michigan, for example,

which has the 9th largest endowment in the country, spends 5% of a seven year average of its endowment value, up to a maximum of 5.3% of the current value of its endowment.

The downside of basing spending rules on longer historical periods is that during prolonged upswings in market valuations (such as we experiences during most of the past 20 years), spending as a share of the current value of the endowment will fall below the target percentage share (in the Michigan example 5%) and public criticism may mount that universities are not spending enough. But, again in retrospect, it may be make sense for universities to take this heat and base spending decisions on longer averages of endowment values.

Of course during prolonged upswings, such a spending policy would disadvantage the current generation of students at the university relative to future generations and the resulting low spending rates as a share of the current value of endowments would likely discourage giving for endowments. To achieve intergenerational equity, it would be absolutely essential for universities to focus more of their efforts on developing increased annual flows of unrestricted giving to support their current operations. At Cornell, under the leadership of Trustee Bob Katz, efforts to substantially grow the Cornell Annual Fund are already underway. As Bob is fond of pointing out, if the University could increase its annual fund donations by \$10 millions a year and then maintain giving at this new higher level (with only inflationary increases in future years), this would yield an income stream to the university equivalent to a new \$200 million dollar endowment (assuming a 5 percent spending rate)

Selective private colleges and universities are likely to find that they have reached a turning point and that they will not have the flexibility to keep increasing tuition at rates

substantially faster than the rate of growth of family income as they have in the past. Thus developing increased flows of philanthropy to fund their current operations, to help fund capital projects and to build their endowments are likely to be increasingly important if they are to continue to prosper. While many of them, including Cornell, are fortunate to have loyal alumni bases, it is also likely that increased flows of philanthropy will be contingent upon the institutions demonstrating to potential donors that they are good stewards of these funds and that they use them wisely.