In ACTA's third *Essay in Perspective*, Columbia University trustee emeritus Edward Costikyan focuses on a seminal report issued by the Ford Foundation in 1968 called "Managing Education Endowments," and argues that college and university trustees have applied Ford's strategy to increase their endowments but have failed even remotely to approach the 5% spending levels recommended by the same report. As a consequence, says Costikyan, while endowments have grown at a meteoric rate, current spending has hovered at around 3% with serious implications regarding the ongoing affordability of higher education and the advisability of current practices.

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During my 12 years as a university trustee, I did not pay much attention to the percentage of the endowment used for current purposes. Trustees were assigned to various committees and were expected to focus their attention on the issues their committees were assigned—for me Alumni Affairs, Educational Policy and the State of the University, Community and Government relations, and various special committees such as investments in corporations doing business in South Africa. This was a sufficiently heavy menu and I assumed that some of my more business-oriented colleagues were focusing on the endowment investments and returns and expenditures.

Trustee Involvement

Somewhere along the way it came to our common attention that the university was spending a far higher percentage of the endowment each year than a trustee resolution contemplated, and we approved steps to bring excess spending under control, without any careful examination of the causes of excessive spending or the appropriate cures. Other than that, trustee involvement in fixing spending of endowment income was minimal. Nowhere in the volume of papers submitted to us prior to each quarterly meeting was there information as to what percentage of the endowment was treated as income for current use. Most of us were under the impression that we were spending between 4.5% and 5.5%, which an earlier trustee resolution authorized, and that seemed reasonable. The relationship between that assumed number and the return on investment—dividends, interest and realized and unrealized capital gains—was not the subject of trustee attention and action. The same is true of many other institutions. My recent inquiries of trustees of other institutions led to almost uniform responses "oh, we spend 5%," when in fact other information demonstrated they were spending in the low 3% range.

Shortly after my term expired, I became interested in the question, in part because the amount being spent annually on a scholarship that my brother and I endowed seemed very low. It was not easy getting the numbers and months and many inquiries would pass between inquiry and response. I began to wonder if the administration knew the answers to my questions, but because the gap between cost and income was largely made up by increasing tuition and by student loans, a phenomenon that concerned me, I pursued the inquiry both at my institution and at others. What I learned was troublesome.

During my tenure as a trustee, tuition was increased every year, frequently at more than the rate of inflation. Trustees automatically approved the increases, which were the product of budget gaps which had to be closed. The availability of endowment income to close the gaps was never discussed. The information supplied by the administration about the increases was how they compared with tuition increases at "peer institutions." If they were less than increases at our "peers," we approved them, feeling virtuous. If the increases were higher than our "peers," they were also approved, feeling less virtuous, but in both cases approving because the money
was needed. But we made no inquiry and had no data upon which to base a decision that the need was real and we did not explore whether there were other ways to solve the financial problem.

That was in part because trustees cannot master and could not be expected to master the details of a billion-dollar budget. My fellow trustees were not different from trustees at other institutions. We asked for no information about the causes of the increases and few of us understood what the causes were except in the most general terms. As a result, I do not believe trustees were or are performing their duties appropriately, including me—Mea Culpa.

In retrospect, I have been able to identify some of the causes of tuition inflation and some of the steps that could and should be taken to restore trustees to their proper roles in the fiscal management of the university.

Ford Foundation Report

In 1968, the Ford Foundation issued a report recommending a change in the way non-profit institutions in general and universities in particular managed their endowments. The report, "Managing Education Endowments," pointed out that the traditional university approach of investing in prime bonds with fixed incomes and relatively few growth securities was less and less wise, as more and more business entities favored increasing the value of their stock over paying out dividends. The increased value of stock was subject to lower rate capital gains taxes when cashed in, while dividends were taxable at higher rates. Compensating corporate officers and stockholders with stock options and increased value of stock instead of cash was far more desirable from both the corporate and investors points of view. So the trend towards increasing value of stock rather than paying out profits to stockholders gained acceptance.

In order to benefit from this phenomenon, Ford recommended that universities change their investment strategies by putting far more of their assets in growth securities using a "whole return" measure—interest, dividends, and realized and unrealized capital gains—of the return on investment. Ford recommended universities annually spend 5% of the value of the endowment without regard to the actual return on investments of dividends, interest and capital gains. Ford pointed out that 5% was, at the time, the usual return on prime bonds in which universities had traditionally invested. And the 5% was apparently chosen to ensure that the institution's budgets would continue to include a return comparable to the return on prime bonds.

The annual computation of the "value" included a device to avoid the impact of "fluctuations in the stock market": the use of a three prior year average value of the endowment (a "lagged" three years, omitting the year just passed) after factoring in additional gifts and other increases in the endowment after the close of the prior fiscal years. I will refer to this later.

This was the essence of the Ford recommendations which were designed "to improve . . . endowment income." (Ford, Vii)

Now 30 years later, it is clear that because of the way universities have applied or varied from the Ford formulae, they have succeeded in increasing the size of their endowments immensely, in part from gifts but largely because of increased returns on investment. In the fiscal year ending June 30, 1997, Harvard endowment rose from $8.8 billion in the prior year to $10.9 billion, the University of Texas from $5.7 billion to $6.7 billion, Yale from $4.85 billion to
$5.47 billion. As of September 30, 1996, for the last 10 years, the top five percent of institutions had average returns on investment of 13.7% per year. The lowest five percent of the institutions had average returns of 10.4% per year. Another set of numbers as of June 30, 1996, reveals that returns for the last six years for the top 10 institutions range between 21.4% per year and 12.6% per year and for the last three years between 23.5% and 11.9% per year.

These figures should be compared with the average returns of the 15 educational institutions whose finances the Ford Foundation reviewed in coming to its conclusions. The annual average return of these institutions as of June 30, 1971 was 7.93% for 13 years, 6.7% for 10 years and 6.94% for 5 years. So the Ford recommendations did increase returns, but the increases were not matched on the spending side, at least to the same extent.

**Percentage Rate of Spending for Current Use Declines**

For despite this growth in the value of endowments and returns on investments, the percentage rate of spending for current use has declined. Because of the way some universities have applied the Ford formula, until recently the rate of spending has been in the neighborhood of 3% despite far higher rates of return (2.9% spending at Columbia with a six year average return on investment of 13.0% per year and a three year average of 14.1% per year; 2.8% at Pennsylvania with a six year average return of 12.3% per year and a three year average of 12%; 2.9% at Cornell with a six year average return of 12% per year and a three year average of 14.2% per year; between 3.7% and 3.2% at Yale (going down) and between 3.8% and 5.8% at Harvard). Some of these percentages have risen in the last year, Cornell to 3.32% and Columbia to something above 3%, but none of these numbers (except Harvard's) approaches the 5% recommended by Ford and many if not most trustees and donors of major institutions whom I have talked to are still under the impression that the spending rate is 5%.

The reasons for low spending included the natural conservatism of fiscal managers (which Ford cautioned against), caps on increases over prior years' spending rates, lax trustee supervision of endowment spending, spending rates fixed below the 5% recommended by Ford and trustee inattention to the spending side of the equation. These rationales are discussed below.

**The Inflation Justification**

One justification advanced for low spending, until recently, was the necessity to deal with inflation. Nowhere in any of the formulae I have reviewed is there any explicit reference to inflation (there is one passing reference in the Ford report, but it is not of any particular significance). Nor did I find any explicit explanation of how to deal with inflation. Nonetheless, inflation was, until recently, a customary justification for the gap between endowment income and spending.

That argument has faded as inflation has dropped to the 3% range. When the reduced inflation rate became clearer, some institutions suggested the inflation rate for universities was higher than the inflation rate for the rest of the world because universities had a different "market basket." I could never find out what was in that basket. But some serious economic analysis was applied to this theory several years ago and produced a differential of about 1%. That was hardly a justification for an assumed special university inflation rate of 6% to 9% when the inflation rate for the rest of the world was under 3%. With the lower rate of inflation, the special university inflation rate argument has faded away.
Nevertheless, it is not clear to me to what extent the market value of the endowment reflects the inflation rate and, if it does, what the impact of inflation should be on endowment spending. I do not know if it is feasible even to make such a computation. Perhaps three of a 12 or 15% increase in market value is attributable to inflation. Perhaps the market for stocks does not reflect the inflation rate at all. Whatever the answer, before trustees accept inflation or the special university basket of goods as justification for the gap between income and spending, they should subject the argument to careful and skeptical analysis.

**Fixing the Spending Rate**

Although Ford recommended fixing a spending rate and changing it only "when and if [it] becomes obviously obsolete" many universities fixed spending rates of between 4.5% and 5.5%. Sometimes the choice within that range is left to university administrators. Acquiescent trustees who like to see the size of endowments grow play no real role in choosing between 4.5 and 5.5%. Nor did many of the administrators appear to give any weight to the returns generated by the endowment or advise the boards of the rationale behind choosing lower spending rates.

Harvard seems to have the most rational system. It has no mechanical rules. A committee consisting of the chief financial officer and treasurer of the corporation and one representative of the liberal arts faculty and one of business or law recommend the rate annually based on need, income, value and whatever else seems appropriate. But most universities seem to prefer to follow mechanical rules which produce such low spending.

Reducing the spending rate from 5% to 4.5% is a 10% reduction in the amount of endowment money available for current use. Reducing it from 5.5% to 4.5% is approximately a 20% reduction.

**Putting a Cap on Increases Over Last Year's Spending**

Lest too much of the increased value of the endowment be spent, a problem with which I believe the Ford formula adequately dealt, universities placed caps on increases over the prior year's spending (So far as I know, Harvard does not). Sometimes, administrators decided what the cap should be and trustees either acquiesced or were unaware of the caps, how they were chosen or what impact the caps had on the supposed spending rates. At some institutions, including mine, the caps on increases, not the percentage of value, fixed the spending rate and the percentage of value was irrelevant except for its historical record in fixing the base to which caps on growth should be applied.

Despite all this, most trustees and donors with whom I have discussed these policies are still under the impression that 5% of the value is spent annually and, among the few of them who also knew of the limits on increases, many confused the limits on increases with the spending rate, especially when the limit was the same as the supposed spending rate.

At my institution, the trustees adopted a resolution which placed a cap on increases of between 5% and 7% of the prior year's spending. The choice of the cap was left to the budget office and the current cap was built into the budget each year with no significant trustee involvement or understanding until recently, after questions had been raised by trustees.

To make matters worse, the caps imposed by the budget office, admittedly with trustee
approval—including mine, mea culpa again—were far below the 5% to 7% caps the resolution authorized. Because of improper overspending by some parts of the institution, the caps were as low as 3.25% for 1990 through 1994 and they crept up to 4.5% and 5% but only after questions were belatedly raised. But even with a 6% cap on increases—halfway between the 5% and the 7% the board resolution approved—and assuming an average return on endowment of 12.3%, which in 1996 was lower than the 10, 7, 6, 5, 4, 2 and 1 year rates of return of my institution, the percentage of the value of the endowment spent each year would have declined over a 10 year period from 3.5% in the first year to 2.71% in year 10. With the lower caps on increases imposed by the administration of between 3.25% and 5%, the percentage of spending would be even lower. By 1997-98, it was down to 2.9%.

Recent actions by our Board altered the formula so that if the net return on investment is 10%—substantially lower than returns in recent years—spendable income will increase to close to 4% of current value in about 15 years, depending upon how much is added to the endowment every year. At current rates of growth and spending, I suspect the spending rate will remain close to 3%. But even on these assumptions, spending less than 4% of current value seems to me unreasonably low.

Use of the Lagged Three Year Value

The spending rate is so low principally because of the way the lagged three year value of the endowment has been computed. The Ford Foundation's formula using a lagged three year value of the endowment to which the 5% for spending was to be applied was designed "to stabilize the endowment... from the fluctuations in the stock market." (Ford, p. 21) In order to accomplish this, Ford recommended that the "impact of additions to the fund" (p. 25) should be dealt with by adding to the market value of the funds at the end of each measuring year subsequent gifts and additions to the endowment since the measuring year. That would make the value of the endowment in the three measuring years a fair measuring rod of its value today as a result of increased gifts and additions.

I have never seen a university computation that did this and I am not sure what "other additions to the funds" means. Ford is silent as to the meaning of "additions." Does it include unrealized capital gains? Does it include the return on investment which is not spent but added to the endowment? Because the purpose of the three year lag is to eliminate from the measuring years fluctuations in the fund attributable to fluctuations in the stock market, it seems to me that such increments, which are not attributable to stock market fluctuations should also be added in before using prior year values as measuring rods for usable current value. If the question is debatable, I believe trustees should debate it. We never did and I doubt that any other Board has.

Adding these gifts and increases to the value of the measuring years is necessary for another reason. Last year's additions to value cannot be included in the budget because the numbers are not available until after the close of the fiscal year, by which time the new budget must be in place. But reasonable estimates could be included. There are such things as computers. As a result of total exclusion, the impact of such increases is deferred 100% in the next year's budget and because of the averaging of the lagged three years, the full impact of such additions is deferred for four years. Adding the value of increases to the three measuring years and including the estimated value in the lagged year avoids this deferral. The result of failure to do so is startling.
Assume the following: At the start of fiscal 1992-93, the value of the endowment is $2 billion. In each fiscal year from 1992-93 through 1998-99, the endowment grows by $100 million a year from additional gifts and by 10% of the opening value of the endowment. The latter is the product of interest and dividends, realized and unrealized capital gains of 13.5% of opening value and spending of 3.5%. On these assumptions, by the year ending 1997-1998, the value of the endowment has grown as follows:

<table>
<thead>
<tr>
<th>Year</th>
<th>Opening Value</th>
<th>Additional Gifts</th>
<th>Additional Value from 10% Return</th>
<th>Year-end Total Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>1992-93</td>
<td>$2 billion</td>
<td>$100 million</td>
<td>$200 million</td>
<td>$2.2 billion</td>
</tr>
<tr>
<td>1993-94</td>
<td>$2.3 billion</td>
<td>$100 million</td>
<td>$230 million</td>
<td>$2.63 billion</td>
</tr>
<tr>
<td>1994-95</td>
<td>$2.63 billion</td>
<td>$100 million</td>
<td>$263 million</td>
<td>$2.993 billion</td>
</tr>
<tr>
<td>1995-96</td>
<td>$2.993 billion</td>
<td>$100 million</td>
<td>$299 million</td>
<td>$3.392 billion</td>
</tr>
<tr>
<td>1996-97</td>
<td>$3.392 billion</td>
<td>$100 million</td>
<td>$339 million</td>
<td>$3.831 billion</td>
</tr>
<tr>
<td>1997-98</td>
<td>$3.831 billion</td>
<td>$100 million</td>
<td>$383 million</td>
<td>$4.314 billion</td>
</tr>
</tbody>
</table>

But in computing value of the endowment in 1996-97 in order to determine how much to spend that year, the value in 1995-96 is totally excluded and the spendable income is 5% (or whatever the percentage is) of the average value at the start of each fiscal year of 1992-93, 1993-94 and 1994-95. The values in those three years total $6.93 billion and the average is $2.31 billion, which is $1.08 billion less than the actual value of $3.392 billion at the start of 1996-97. Five percent of that $1.08 billion, which is supposed to be spent under the 5% spending rule, is over $50 million.

The next year, 1997-98, is worse. Actual opening value is $3.831 billion. The value for computing spendable income is the average of 1995-96, 1994-95 and 1993-94, or one-third of $7.923 billion, or $2.641 billion, which is $1.190 billion less than actual value. Five percent of that value which is supposed to be spent under the formula but is not is $59,500,000 per year.

It is accordingly clear that on these assumptions, at a 5% spending rate recommended by Ford, over $50 million has been withheld in each of the last two years alone. If the institution has 10,000 students, the unspent amount is $5,000 per student per year (and growing), which, if spent, would go a significant way in reducing the socially unacceptable annual increases in the cost of a college education and the amounts students have to borrow in order to pay for it. None of this has anything to do with fluctuations in the stock market — the rationale for the three-year lag recommended by Ford. While an adjustment to deal with stock market fluctuations is perfectly sensible, the three-year lagged average is an inadequate device to deal with that problem and should either be eliminated or modified in a very significant way.

Unacceptable Tuition Increases

Costikyan Formula
I have devised what I believe to be a better way to deal with fluctuations in the stock market and to do so without diminishing the income available for current use. Instead of averaging the lagged three year values of the endowment (skipping the most recent), average the rate of return for the most recent three years including the one coming to an end when the new budget is being prepared. (There is no real problem about getting the numbers for that year in time to be used for next year's budget because they can be computed on a March 31 fiscal year.) Apply that average return to actual current value. If the average rate of return is 20%, allocate one-third of that 20% to current use and the balance to principal. This is consistent with accepted allocations of trust fund returns between current beneficiaries and remaindermen. Indeed, in New York State, one-third of trust commissions and administration costs are, by law, allocated to income and two-thirds to principal.

There may be other methods but I believe this is a valid one, so much so that I am content to name this the Costikyan Formula. While the one-third allocable to current use is not written in stone, the 5% recommended by Ford was not written in stone either. Given the rates of return of some institutions today, the one-third may well be too low. But the trustees should make a reasoned and informed judgment on this question.

Of course these numbers are based upon assumptions. The 3.5% spending rate may be high. If the spending rate is 3% instead of 3.5%, the addition to value from the return on investment is increased .5% of the principal. This increases the gap between actual and computed value and further reduces current use income. The assumed net return on investments of 10% may be low in the short-term and high in the long-term. The $100,000,000 annual addition of gifts may be high over the long term and low over the short-term. But current estimates and projections should be based upon present and past experiences. On the basis of my experience and analysis, the estimates do not distort the picture. They support the argument that trustees have an obligation to start using their endowments, reasonably and safely, to reduce tuition and to stop relying on formulas instead of intellect to fix endowment spending. The first institution that does it, and I hope it is my alma mater, will shine with students, parents, alumni and donors.

The suggestion that increased spending of endowment income should be used to reduce tuition and loans will not necessarily be welcomed by administrators and faculty. After all, applications for admission continue to rise despite higher tuition. If other institutions are charging $20,000 a year, why should we charge less? Of course, this "charge what the market will bear" approach would hardly receive enthusiastic approval by many university faculties, not to mention students and then-parents.

It is also argued that most endowments are restricted to specific purposes and cannot be transferred to others. But university accounting systems are sufficiently flexible to translate increased endowment spending to tuition cuts just as today they are sufficiently flexible to impose service charges on components of the university based upon the amount of income they receive from restricted funds, but make the charges payable out of unrestricted funds. I do not find the arguments against tuition reduction convincing.

To the contrary, perhaps the most compelling reason for addressing the tuition issue is the risk of not doing so. Universities are not the only tax exempt organizations under Section 501(c) of the Internal Revenue Code. There is always the risk of federal tax legislation dealing with the use of tax exempt funds and challenging the manner in which proceeds are used or not used. As
citizen unhappiness with the high cost of university educations increases, the risk that that unhappiness will stimulate some such legislative effort is real. Indeed there are already proposals lurking around the halls of Congress dealing with the low spending of income from tax exempt funds. It would be wise for universities to address this problem on their own rather than leave it to the legislative meat-axes in Washington.

Lax Enforcement of the Spending Rates

One reason for the low caps imposed on growth at my institution was that some elements of the university had overspent endowment funds, reaching at some point as high as 9%. In order to restore the value of the whole endowment, low spending increases were imposed on everyone. Why a restricted scholarship fund which spent as little as 3% of its value should be subject to a penalty to make up for excess spending by other elements in the university was always a mystery to me. How the overspending came to happen was never explained to the board and I remember no inquiry on the subject beyond the most general. (I assume some committee of the board may have looked into it, but it never came to our attention.) But to the extent there was overspending, it was a matter the trustees as a whole should have examined. After all, as Ford pointed out, "the ultimate responsibility for managing college and university endowments belongs, of course, to the trustees" (p. 9).

Failure to Re-Examine the Assumptions

The 5% spending rate recommended by Ford did not purport to be written in stone and universities were free to select other spending rates. But the 5% rate was based on the then return on prime bonds. Today that rate is approximately 6%, a 20% increase over 1968. And the rate of return on investment is no longer in the 6.73% to 7.93% rates of 1972. An increase of the spending rate to 6%, the proper use of the 3 year lagged formula to eliminate stock market fluctuations and the elimination of spending caps would approximately double the present spending rate. An increase to a rate limiting endowment growth to something close to the rate of inflation, thus preserving the "real value" of the endowment, plus new gifts, would produce another doubling of the 5% rate recommended by Ford. Trustees should at least examine the wisdom of such changes in light of changed circumstances, as the Ford report implicitly recommended.

Examining the Spending Side of the Budget

There are other reasons for tuition inflation, particularly the ways in which the money is spent. I could list a lot of examples but will limit myself to one — the teaching loads of university faculties.

Fifty years ago, the normal teaching load even of senior faculty at my institution was 9 to 12 hours each semester. To the best that I can ascertain (the university was unable to provide me with usable information on this), the current teaching load, in the liberal arts at least, at most research institutions is six hours in one semester and three or six hours the second. Even with preparation time of between one and three hours per teaching hour and assuming the full three hours instead of 2 or 1, the work week for teaching and preparation is between 12 and 24 hours (12 hours in a semester where there are three teaching hours). Either should leave adequate time for research. Indeed, the teaching loads of 40 years ago enabled the academic luminaries — Jacques Barzun, Lionel Trilling, Henry Steele Commager and Mark Van Doren to name four of my institute's luminaries of that era — plenty of time to pursue their scholarly interests.
Today trustees play no role in fixing teaching loads. The faculties decide. But I know of no economic system where the employees decide how many hours they will spend on what duties. I believe that in approving budgets, trustees are under a duty to examine the spending side as well as the income side and that teaching loads is a good place to start. I should add that such an inquiry will not be welcomed by faculty or administrators, as I discovered when I attempted to initiate it.

**Why Is So Little Spent?**

The answer to this question is found in the Ford Foundation report at page 14: "It is our conclusion that past thinking by many endowment managers has been overly influenced by fear of a major crash. Although nobody can ever be certain what the future may bring, we do not think a long-term policy founded on such fear can survive dispassionate analysis of the probability of a crash and of the long-term cost of constantly guarding against one. We urge every college trustee to examine the investment policy of his institution with these considerations in mind."

Trustees have disregarded this advice. Instead, without an analysis of the risk, they have adopted spending rules which reduced the income of their endowments available for current use by as much as 50% to 100% while annually adding to principal amounts that in 10 years can more than double the principal. By adopting this cautious approach, trustees are putting burdens on parents and students and saddling graduates with massive debts that diminish their capacity to return to the public at large the benefits of what universities have taught them. A law school graduate owing $80,000 is not a free agent, but must seek employment where the money is. And the money is not in public service.

**Mastering the Ford Foundation Report**

A most useful tool in my analysis for spending policies at the university was to review the Ford Foundation recommendations of 30 years ago.

I recommend that every trustee do so.

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