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Higher Education - US

Endowment Management Shifts as Long-Term Returns Decline

As universities increasingly view lower long-term endowment returns as the potential new normal, they will face heightened budgetary and endowment management challenges. Lower returns threaten the purchasing power of endowments (real inflation-adjusted value over time), which will make it more difficult to fund core university priorities such as student financial aid and academic programs. While universities have long-term investment horizons, modestly rising inflation, combined with political pressure to increase endowment spending, will drive universities to reevaluate their investment strategies. Some may reduce risk within their portfolios by moving to simpler and more liquid strategies, while others may add risk by moving to potentially higher yielding but more volatile investments.

» **Lower long-term endowment returns pose a challenge for universities in a rising inflation environment.** Long-term returns may be insufficient to maintain the traditional goal of a 5% annual draw on the endowment. In order to maintain purchasing power, universities would need annual nominal returns of at least 7%-7.5% in the next five years to generate the 5% draw and account for rising inflation.

» **Budgetary implications along with scrutiny about the cost of higher education will limit universities' flexibility to lower endowment spending.** Cutting endowment spending to cope with lower returns will be difficult given pressure on universities to keep tuition affordable and provide substantial financial aid. While unlikely, material policy changes affecting universities' tax-exempt status or mandating higher endowment spending would be credit negative for affected universities.

» **Focus on asset allocation and investment management will intensify as universities confront lower returns and pressure to maintain spending levels.** Endowment management strategies will depend on universities' risk tolerance based on endowment size, performance and other factors. Universities will increasingly focus on management fees and active versus passive investing. Credit implications will be closely tied to a university's underlying financial profile, including liquidity, cash flow and capital needs, as well as the ability to appropriately oversee and manage complex endowment strategies.

» **Some universities can grow endowments through other means, including fundraising and retained cash flow.** These opportunities to partially offset lower investment returns will remain most prevalent among universities with the largest endowments that often have the strongest brands and wealthiest donor bases.

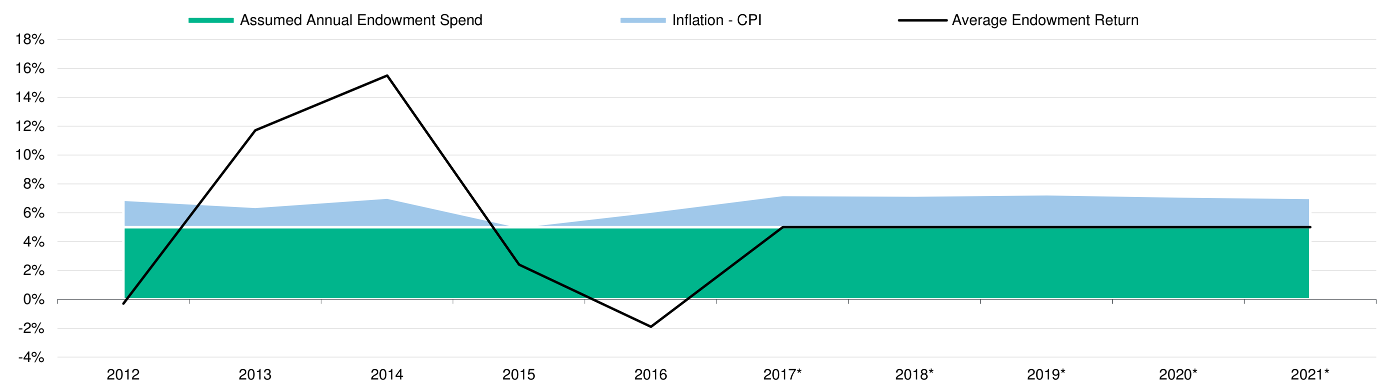
Lower long-term endowment returns pose a challenge for universities in a rising inflation environment

As lower long-term investment returns potentially become the new normal, universities will find it increasingly difficult to maintain the purchasing power of their endowments without negatively impacting their operating budgets. While investment returns can be volatile from year to year, the long-term 10-year average annual endowment return fell to 5% in the *2016 NACUBO-Commonfund Study of Endowments*. This average return is well below what is needed for universities to offset the effects of modestly rising inflation and maintain the industry-standard 5% endowment spending rate that many universities view as a sustainable level to maintain the endowment's value in perpetuity.

Continuation of the recent decade's trend of an average annual 5% endowment return would lead to an annual shortfall in the range of 2%-2.5% in inflation-adjusted returns (see Exhibit 1). Increases in inflation beyond our current expectations without a corresponding improvement in nominal investment returns would further pressure endowment purchasing power.[1]

Exhibit 1

Endowment Values Will Decline if Annual Returns Remain Below 7.5% and Spending Isn't Adjusted



*Indicates forecasts.
"Assumed Annual Endowment Spend" is 5%. "Average Endowment Return" is based on NACUBO-Commonfund Study of Endowments for the past 10 years and a Moody's-assumed 5% for 2017-21. "Inflation - CPI" projections for 2017-21 are Moody's projections.
Sources: Moody's Investors Service; NACUBO-Commonfund Study of Endowments

Even with prospectively stronger returns for fiscal 2017, with many universities generating 7%-9% returns through March 2017 (third quarter of the fiscal year for most universities), an increasing number of universities in our rated universe have begun lowering their assumed long-term rates of return as they undertake multi-year budget modeling. Nominal assumptions in the 6%-7% range are becoming more common in their forecasts. Historically, many universities assumed 8%-9% nominal endowment returns as they budgeted endowment spending, but assumptions at this level are increasingly rare. The trend of universities lowering return assumptions mirrors the trend of many pension funds that have recently lowered their discount rates.

Budgetary implications along with scrutiny about the cost of higher education will limit universities' flexibility to lower endowment spending

In conjunction with lowering assumed rates of return, universities may modestly reduce annual spending from their endowments. However, substantial reductions in spending are unlikely, given budgetary effects as well as political scrutiny. Endowment spending supports a number of core university budgetary priorities, including student financial aid and academic programs. While spending from restricted endowment funds must accord with donor restrictions, these restrictions tend to be budget relieving in higher education.

Historically, most universities have targeted an average 5% draw on the endowment, a rate that the industry has viewed as a sustainable amount to maintain the value of the endowment in perpetuity. While 5% is an average annual spending rate, there are multiple endowment spending policies, which typically end up banding spending between 4%-6%. In the 2000s, many universities revised their endowment spending policies looking to more closely hit their targeted spending rate in an environment of increased market volatility. As lower returns are now becoming the new normal, some universities are gradually revising their spending down to the 4.5%-5% range.

Nonetheless, lowering endowment spending will be challenging with heightened political and public scrutiny about controlling the cost of higher education. Increased federal scrutiny of endowment spending practices of the largest private universities is a recent example of such political scrutiny. Proposals at the federal level include taxing universities with the largest endowments (greater than $1 billion) if they fail to spend a large enough portion of their endowments annually on student financial aid. Similarly, states such as Connecticut (A1 stable) are floating ideas about taxing universities with the largest endowments. While the likelihood of these proposals passing remains low given the complexity of the legal restrictions on endowments, changes to university tax exemptions or requirements of higher endowment spending would be credit negative for those affected universities.

With this political and public scrutiny, it is unlikely that many universities will move to materially lower endowment spending, especially universities with the largest endowments that face the most scrutiny. Furthermore, strong investment returns in 2013 and 2014 bolstering endowment levels in those years contributed to universities spending more from the endowment in the past two weak investment return years. According to the *2016 NACUBO-Commonfund Study of Endowments*, 74% of universities increased endowment spending in dollar terms in fiscal 2016. Given universities' higher endowment spending in fiscal 2016 and heightened political pressure to maintain or increase spending, bringing down future spending to adjust to lower returns will be difficult.

In some cases, colleges facing significant budgetary stress have increased their endowment spending, taken special draws from their endowment, or “borrowed” from their endowment to fill budget gaps. Absent significant strengthening of their own market profiles, rebuilding their endowments will be challenging in the projected lower return environment, resulting in a permanent loss of financial flexibility relative to their peers.

Universities may seek to lower expenses in a more difficult endowment return environment

With political and public pressure to maintain or increase endowment spending rates in a more difficult investment return environment, some universities may seek to lower operating expenses. In some cases, universities may seek to lower the number of students in specific programs to meet their financial aid goals while maintaining the value of the endowment.

Harvard University (Aaa stable), for example, recently indicated it would reduce the number of admissions to its Graduate School of Arts and Sciences by 4.4% due, in part, to lower endowment returns.[2] Similarly, Princeton Theological Seminary (Aa1 stable) announced it would consider reducing the size of its classes by 30%-40% for an 8 to 10 year period given anticipated lower market returns.[3]

Focus on asset allocation and investment management strategies will intensify as universities confront lower returns and pressure to maintain spending levels

In addition to examining spending, universities will heighten their focus on asset allocation and investment management. Some colleges will move to more passive investment strategies, looking to match market returns. These strategies often carry lower fees and funds may be more liquid, but the approaches can limit prospects for outperformance relative to peers and benchmarks. Other universities may take on increasing risk in their portfolios, allocating increasing amounts to less liquid and more volatile, but potentially higher-yielding, asset classes. Ultimately, credit implications of an individual institution's investment strategy will be tied to its underlying financial profile, including liquidity, cash flow and capital needs. The depth and expertise of the board and staff in managing and overseeing complex investment strategies will also drive credit implications.

Divergence in return expectations by asset class may influence how universities structure endowment asset allocation. In J.P. Morgan Asset Management's *2017 Long-Term Capital Markets Assumptions*, for example, the vast majority of asset classes are expected to return less than 7%-7.5% over the next 10-15 years (see Exhibit 2). Assuming a 2%-2.5% long-term inflation rate and 5% annual endowment spending, the majority of asset classes would not provide enough of a nominal return to support annual endowment spending. The asset classes expected to have the largest returns, including emerging market equities and private equity, tend to be among the most volatile, adding risk for universities seeking to achieve greater returns.

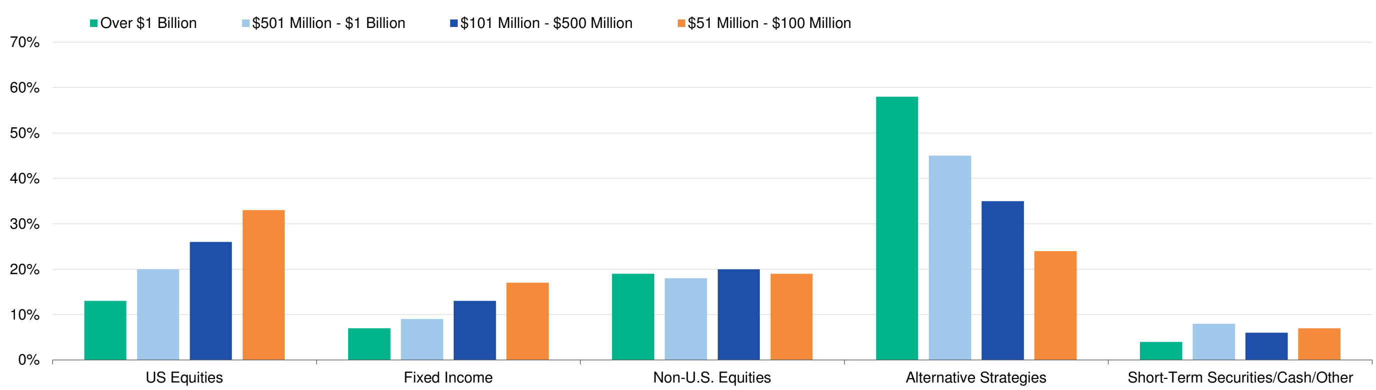
Exhibit 2
Most Asset Classes Are Projected to Experience Low Returns, Limiting a University's Ability to Maintain Similar Level of Endowment Spending

Asset Class	Compound Return (%)	Annualized Volatility
US Long Corporate Bonds	3.75	10.25
Emerging Markets Corporate Bonds	5.50	8.50
US Large Cap Equities	6.25	14.75
Emerging Markets Equity	9.25	22.50
Private Equity	8.00	20.50
US Core Direct Real Estate	5.50	10.75
European ex-UK Prime Direct Real Estate	6.25	14.50
Diversified Hedge Funds	3.50	6.50
Commodities	3.75	17.50

Compound return assumptions are based on a 10-15 year investment horizon.
Source: J.P. Morgan Asset Management 2017 Long-Term Capital Market Assumptions

Some alternative asset classes (e.g., private equity, hedge funds, venture capital and real estate) that offer the prospect of higher returns than traditional asset classes are often only accessible to larger endowments since they normally have higher minimum investment requirements. As a result, universities with larger endowments that can afford to invest in these types of alternative asset classes and manage the liquidity lockup periods often associated with them are more likely to have a larger portion of their endowment funds in alternative investments. According to the *2016 NACUBO-Commonfund Study of Endowments*, endowments with greater than $1 billion in assets had 58% dollar-weighted exposure to alternative strategies, while endowments between $51 million and $100 million only had 24% dollar-weighted exposure to alternative strategies (see Exhibit 3).

Exhibit 3
Larger Endowments Have Greater Exposure to Alternative Investments
By endowment size



Fiscal 2016 data
Asset allocation by endowment size calculated on a dollar-weighted basis
Source: 2016 NACUBO-Commonfund Study of Endowments

Some universities will seek greater exposure to alternative investments in order to bolster long-term endowment returns, while other universities will maintain or lower their exposure to alternatives given volatility and liquidity risk. Many universities will follow national trends and seek to limit investment management fees to the greatest extent possible, moving more toward passive management of assets and away from active management. We project passively managed assets under management in the US to exceed actively managed assets by 2024. While some universities may retain their exposure to active managers, they will increasingly try to negotiate fee concessions from their active managers.

While the prospect of higher returns in some alternative asset classes may encourage smaller endowments to increase their allocation in them, smaller endowments will continue to find it difficult to obtain access to the highest-performing alternative asset classes. As a result, some smaller and mid-sized endowments have turned to outside chief investment officers and pooled fund strategies.

These pooled funds combine assets of multiple endowments or other large investors to provide individual universities with diversified portfolios and access to asset classes that would normally require larger individual investments. Such funds often have liquidity provisions, which may be negotiated on a case-by-case basis, often with significant restrictions on accessing funds. While some universities may move to these types of pooled funds to gain access to alternative investment classes and greater investment management expertise, others will avoid them given the liquidity lockups and multiple levels of manager fees.

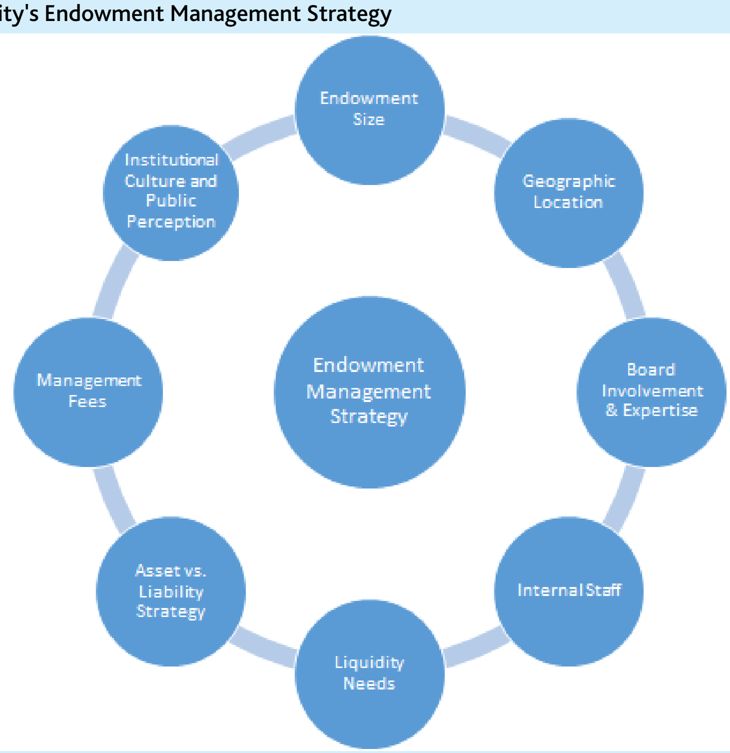
As low returns persist, we expect universities to reevaluate not only asset allocation but endowment management structures more broadly. In a recent example, Harvard University announced a restructuring of Harvard Management Company that includes a staff downsizing, restructuring with portfolio managers focusing less on an area of expertise and more on the portfolio as a whole, and a fundamental review and redesign of the investment and risk allocation frameworks.

Asset allocation decisions driven by a multitude of factors

Ultimately, decisions on asset allocation and investment oversight depend on a university's risk tolerance, endowment size and other factors (see Exhibit 4). The impact on credit quality depends on the university's financial profile, which allows it to manage various levels of risk based on factors such as liquidity and cash flow.

Exhibit 4

Many Factors Drive a University's Endowment Management Strategy



Source: Moody's Investors Service

Some universities can grow endowments through other means, including gifts and retained cash flow

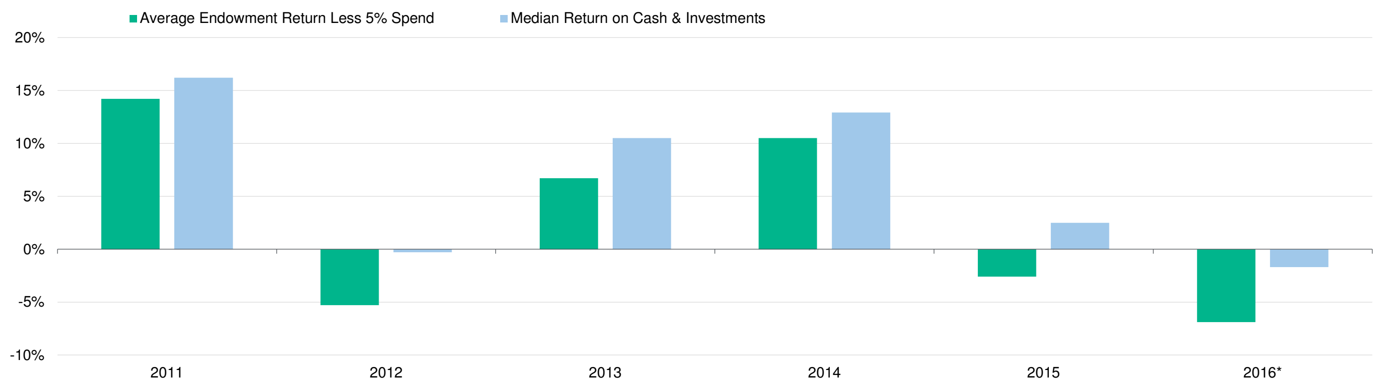
Despite prospective lower long-term investment returns, some universities will continue to grow endowments through means other than asset appreciation, including fundraising and retained cash flow.

Gifts from donors to endow faculty chairs or scholarships, for example, have been instrumental in maintaining endowment growth. Separately, some universities have excess cash flow that can be deposited into a “quasi endowment” (non-endowment funds serving as endowment) and invested to strengthen wealth over the long term.

As seen in Exhibit 5, universities typically grow cash and investments at a higher rate than endowment returns less endowment spending. In 2015, for example, the median private university return on cash and investments was 2.5%, compared to an average net endowment impact of -2.6% (i.e., median endowment return of 2.4% less 5% of spending). In fiscal 2016, our preliminary median data indicate a -1.7% return on cash and investments relative to an average -6.9% net endowment impact (median endowment return of -1.9% less spending of 5%). Over the past six years, universities' median return on cash and investments is an average of 4% higher than the median endowment return less 5% of endowment spending. This demonstrates that the sector's philanthropy and cash flow provide support to total wealth partially offsetting the impact of weaker investment returns.

Exhibit 5

Private University Cash and Investments Typically Grow in Excess of Endowment Returns Less Spending



*2016 Median Return on Cash & Investments is an estimate

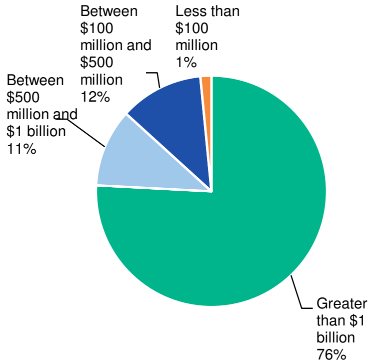
Sources: Moody's Investors Service; 2016 NACUBO-Commonfund Study of Endowments

Universities with the largest endowments often have the strongest brands and greater philanthropy, with more diversified revenues contributing to more robust cash flow. Among rated private universities, approximately three-quarters of total gift revenue and total operating cash flow are generated by universities with at least $1 billion of total cash and investments (see Exhibit 6 and Exhibit 7). By number, however, these universities only represent 22% of total rated private universities (see Exhibit 8). As such, the wealthiest universities will continue to disproportionately benefit from philanthropy and cash flow as mitigating factors against lower investment returns. As a result, the sector will continue to become increasingly bifurcated, with the strong universities on a relative basis getting relatively stronger and those that are financially challenged becoming more so.

Exhibit 6

Universities With Largest Endowments Generate Most Gifts...

Percent of total gift revenue for Moody's-rated private universities by wealth levels

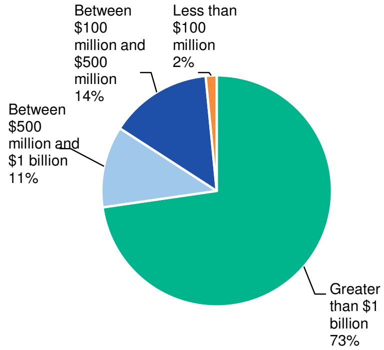


Based on audited fiscal 2015 financials
Wealth includes total cash and investments
Source: Moody's Investors Service

Exhibit 7

...and a Similarly Large Percentage of Sector Cash Flow...

Percent of total cash flow for Moody's-rated private universities by wealth levels

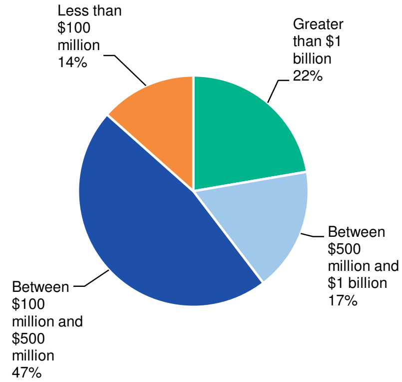


Based on audited fiscal 2015 financials
Wealth includes total cash and investments
Source: Moody's Investors Service

Exhibit 8

...but Represent a Far Lower Portion of Moody's-rated Universities

Percent of rated private universities by wealth levels



Based on number of active private university ratings
Wealth includes total cash and investments
Source: Moody's Investors Service

In addition to philanthropy and cash flow, universities can augment their wealth through other factors such as asset monetization or research commercialization. We anticipate that monetization of assets and research will most likely benefit the largest and wealthiest universities that often have the most valuable physical assets and most prominent research programs. For example, The Ohio State University (Aa1 stable) has taken aggressive steps to monetize its assets, including a $1 billion concession and lease agreement with a private energy consortium this year, a land sale in 2016, and a 50-year concession lease of parking facilities in 2012.

Reliance on endowment varies by type of organization

In this report, we primarily rely on the Moody's-rated universe of private universities to highlight the effects of lower long-term average investment returns on endowment purchasing power. Other rated organizations are reliant on endowment spending for operations, including some public universities, K-12 independent schools, and other not-for-profit organizations. Many of the challenges facing private universities due to lower returns also affect these organizations that rely on endowment spending and appreciation (see Exhibit 9).

Exhibit 9

Reliance on Endowment Income for Operations Varies by Organization Type

Endowment spending as percent of operating revenue

Organization Type	25th Percentile	Median	75th Percentile
Private University	5.2%	8.4%	16.1%
Public University	1.6%	2.3%	3.1%
Not-for-Profit Organization	5.5%	12.3%	28.3%
K-12 Independent School	10.0%	16.2%	33.5%
Community College	1.3%	1.6%	2.3%

Statistics are based on fiscal 2015 data
Source: Moody's Investors Service

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- Liquidity and Credit Risk at Endowed U.S. Universities and Not-for-Profits, June 15, 2010
- Management of Endowments Grows Increasingly Challenging, May 30, 2007
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Endnotes

1 Inflation forecasts are based on Moody's Macroeconomic Board assumptions.

2 Harvard Magazine, May-June 2017, "Graduate Admissions in Lower Gear."

3 Town Topics, April 12, 2017, "Princeton Seminary Facing Financial Challenges."

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