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IS THE ENDOWMENT MODEL **RIGHT** FOR YOUR UNIVERSITY?

The "Endowment Model" is an investment strategy that has gained popularity due to the success of some of the largest university endowments effectively implementing it in their portfolios. This success has led a significant contingent of other large and midsized endowments to attempt to replicate the model; however, they have not necessarily been as successful. The COVID-19 pandemic has created a whole new set of variables impacting investments, liquidity needs and overall finances for colleges and universities.

While some investors have found success implementing the endowment model approach, our findings suggest it's likely not suitable for most universities. One key factor is that those attempting to replicate the model don't have the same time horizons, expertise, resources or access to the same investment managers that have made the largest endowments successful at implementation. Investment committees and staffs that have not experienced similar success might want to consider ensuring that their programs for managing the endowment's assets are truly capable of successfully implementing this model.

In this paper, we explore a successful implementation of the endowment model, point out additional impacts caused by the COVID-19 pandemic and highlight concerns and potential risks for those attempting to replicate the model.

WHAT IS THE ENDOWMENT MODEL APPROACH TO INVESTING?

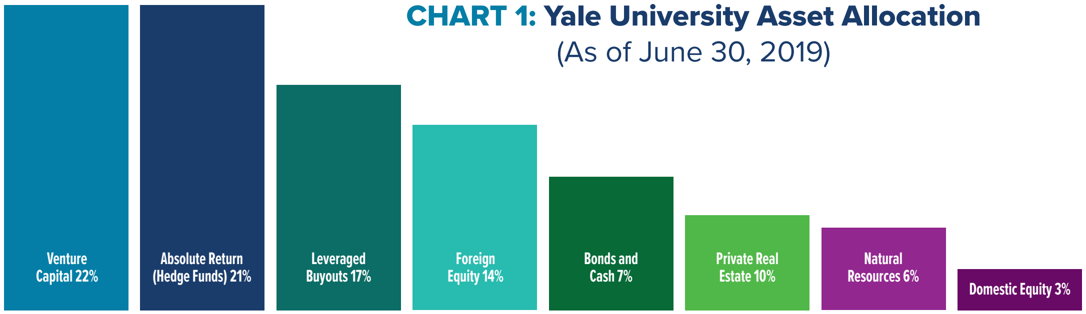
The endowment model style of investing is an often used and misrepresented term, so it is helpful to lay out its high-level tenets. Generally speaking, the endowment model approach:

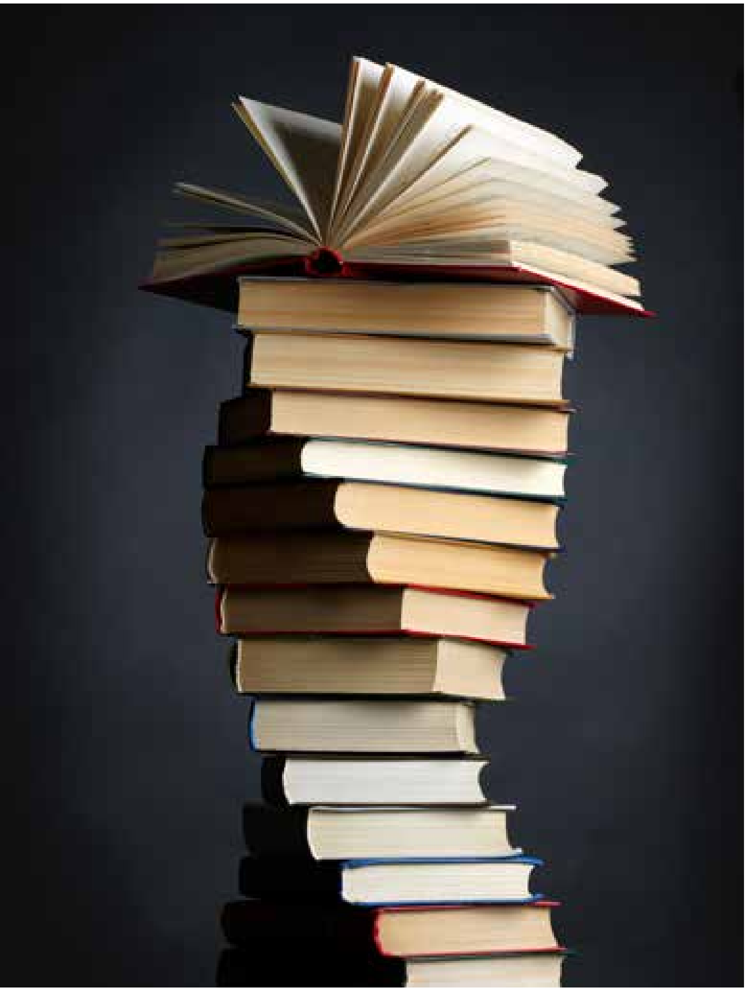
1. Allocates the endowment's assets to broad asset-class categories designed to provide diversification through uncorrelated returns. This includes truly diversifying strategies and asset classes rather than a typical endowment asset allocation, which heavily favors investments centered on equity and credit risk.

2. Allocates assets within this allocation away from traditional asset classes and into alternative investment strategies such as private equity, real estate and hedge funds, as well as other niche, typically less-liquid strategies. For example, Yale University's endowment is often considered the "poster child" for the endowment model approach because CIO David Swensen is frequently credited with developing and implementing this style. Chart 1 shows the asset allocation target for Yale's endowment, according to its 2019 fiscal year report. Note that only about one-quarter of the portfolio is in traditional, liquid strategies, with three-quarters going to alternative investment strategies.

3. Builds an investment portfolio "bottoms up" by investing in hard-to-access managers, negotiating terms such as a lower management fee (when possible) and keeping a careful eye on risk management at a fairly granular level. This last tenet is the most difficult to understand and is a key reason why the endowment model has been difficult to successfully replicate for most endowments (as we will discuss later).

CHART 1: Yale University Asset Allocation
(As of June 30, 2019)





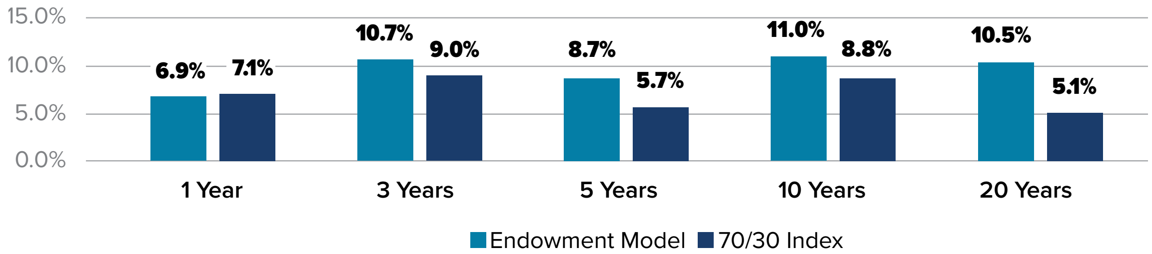
HAS THIS MODEL **WORKED?**

Based on performance, the simple answer is yes. To validate this response, a sample set of five universities' historical performance was analyzed to gain an understanding of whether the endowment model has been a successful investment strategy and what its implementation looks like conceptually. The university endowments in the sample set were Yale, Stanford, Princeton, Massachusetts Institute of Technology (MIT) and Notre Dame. These five were chosen because they offer a fair amount of transparency and are widely believed to follow the endowment model approach.

Chart 2 shows the average returns of the sample set endowments (net of all investment management fees) from fiscal years 2004 through 2019[1] versus a 70% global equity/30% fixed income policy benchmark[2] over that same period. Clearly, the investments of these universities have enjoyed long-term success compared to a more traditional strategy.

CHART 2: Annualized Performance (As of June 30, 2019)

Past performance does not guarantee future results.



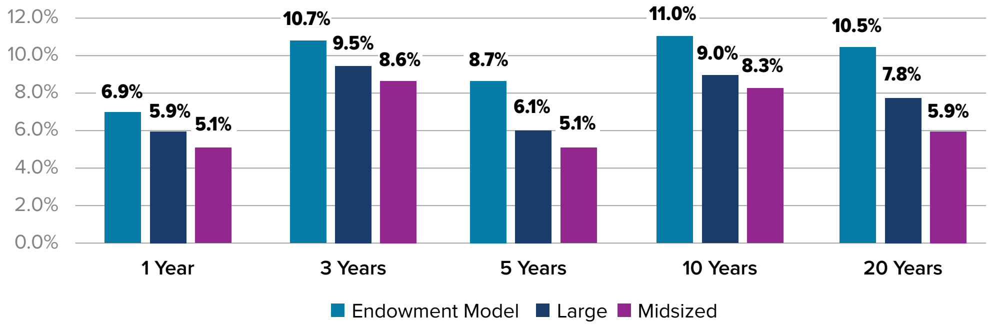
[1] Endowment model performance is the average endowment performance of Yale, Stanford, Princeton, MIT and Notre Dame from fiscal years 2004-2019. MIT performance data was not available from 2000-2004, so the 20-year returns show only the average of the other four endowments. Source: 2019 NACUBO-TIAA Study of Endowments (NTSE) (March 2020).

[2] Benchmark built using MSCI World Equity Net Return Index for global equities and Barclays Aggregate Bond Index for fixed income.

The sample set has also successfully outperformed other university endowments on a consistent basis. Chart 3 displays the average results of the sample set relative to other large universities (endowments with greater than $1 billion) and midsized universities (endowments between $100 million to $1 billion).[3]

CHART 3: Annualized Performance (As of June 30, 2019)

Past performance does not guarantee future results.



The consistency of the endowment model's outperformance appears to be a factual contradiction to skeptics who claim it is statistically luck and not skill. It's difficult to find data prior to 2000. However, over the past two decades, the sample set portfolios have outperformed the average large university endowment in 17 of 20 years (85%). The cumulative outperformance has been 74%, and the median annual outperformance has been 2.7%.

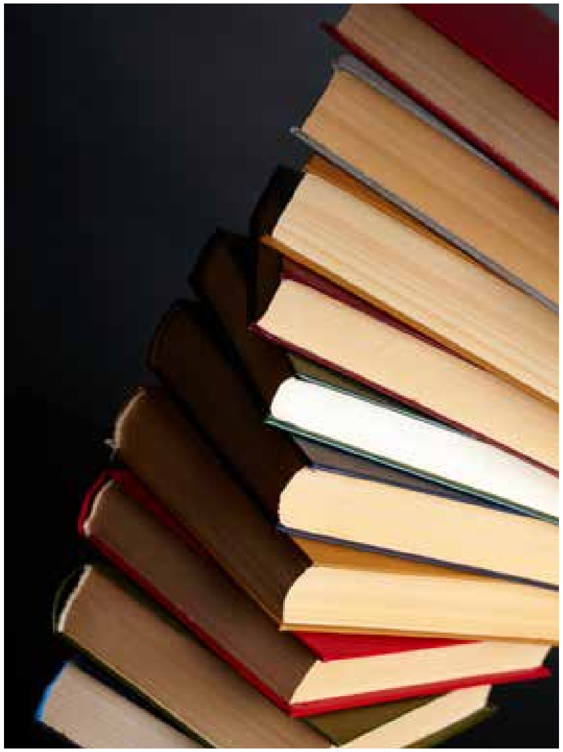
HOW COULD THE CURRENT AND POST-PANDEMIC ENVIRONMENT **IMPACT THE ENDOWMENT MODEL?**

For years, many smaller universities have tried to implement asset allocations that are similar to the endowment model. The current environment has shed significant light on the fact that the model has a much greater impact on smaller universities than on larger universities that trailblazed this approach. Larger universities that have successfully implemented the endowment model have multibillion dollar endowments and the luxury of being able to have illiquid endowment portfolios, which can withstand fairly large drawdowns. Many midsized and possibly even large universities cannot afford this same illiquidity and volatility. While many have avoided significant illiquidity by maintaining smaller exposure to alternative investment strategies, they have not necessarily reduced drawdown risk because they have heightened exposure to equity-centric portfolios.

Most professional investors estimate 10-year equity returns to be anywhere between 5%-7% annualized and high-quality fixed income returns to be 1%-3%. Given this lower expected return environment, endowments have been forced to have portfolios geared toward potentially higher returning asset classes in an effort to meet high-spend hurdle rates typically ranging between a 4%-5% real return (i.e., 6%-7% if inflation returns to its historical average of approximately 2%). As a result, these investment portfolios exhibit substantial volatility and drawdown risk. Rather than the balanced asset allocation portfolio described by Yale's Swensen, which diversifies portfolio exposures to multiple risk factors, many of these endowments are making a massive bet on continued strong performance in equities, long-biased hedge funds (which contain significant equity and credit market exposure) and private equity.

That being the case, the current environment has made this strategy even harder and riskier. We believe all three of the above categories—equities, long-biased hedge funds and private equity—will be highly correlated with how the

[3] 2019 NACUBO-TIAA Study of Endowments (NTSE) (March 2020). Large is NACUBO's reported performance of endowments over $1 billion. Midsized performance is the average of NACUBO's reported average peer groups ranging in size from $100 million to $1 billion in assets.



world fares against the COVID-19 pandemic. While universities were impacted to a large degree by the economic fallout in 2008-09, that pales in comparison to this environment. The longer the pandemic lingers and continues to damage the global economy, it should also have a continued devastating impact on universities' operating models. That could potentially pair with another large drawdown in risky asset classes such as what occurred in March 2020. This would cause large losses and more illiquid portfolios for university endowments at a time when those funds are needed to meet current university obligations.

It is crucial to consider the following questions universities are facing in the current environment:

- If the COVID-19 pandemic continues for longer than capital markets seem to believe, how is the endowment expected to perform given its asset allocation? Are there strategies in place that will protect a substantial value of the endowment to ensure it can maintain its spending requirement with minimal volatility and balance income in perpetuity?
- If the pandemic continues to impact universities over the next few years, for what purposes will universities need the funds in the endowment? Should the investment committee reconsider the volatility and illiquidity of the endowment's asset allocation given the potential to use the endowment funds for those purposes?
- If the university's operating deficits exceed what was previously forecast and this occurs for a multiyear period, does an aggressive asset allocation mixed with the potential for a large drawdown within the endowment put the university at risk from a strategic initiative perspective?

SHOULD FINANCIALLY STRONGER UNIVERSITIES **ATTEMPT TO REPLICATE THE ENDOWMENT MODEL?**

Some universities are not as concerned about the impact of their financial state due to the COVID-19 pandemic. Does it make sense for those endowments to attempt to replicate the endowment model? They already have to some degree. Swensen began implementing the endowment model approach at Yale in the mid-1980s. The results were highly successful and, in 2000, his book describing the model, "Pioneering Portfolio Management," was published.

This, mixed with strong results from other Ivy League schools employing the endowment model approach, had a strong influence on the asset allocation of university endowments.

CHART 4: Historical Asset Allocations

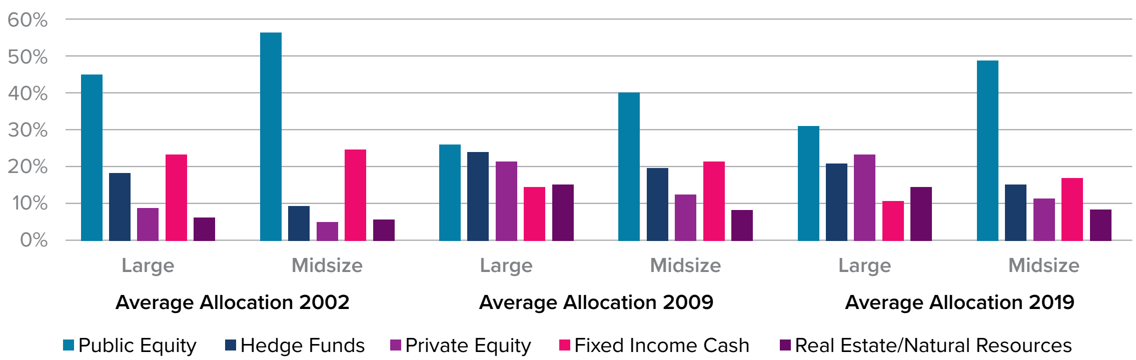
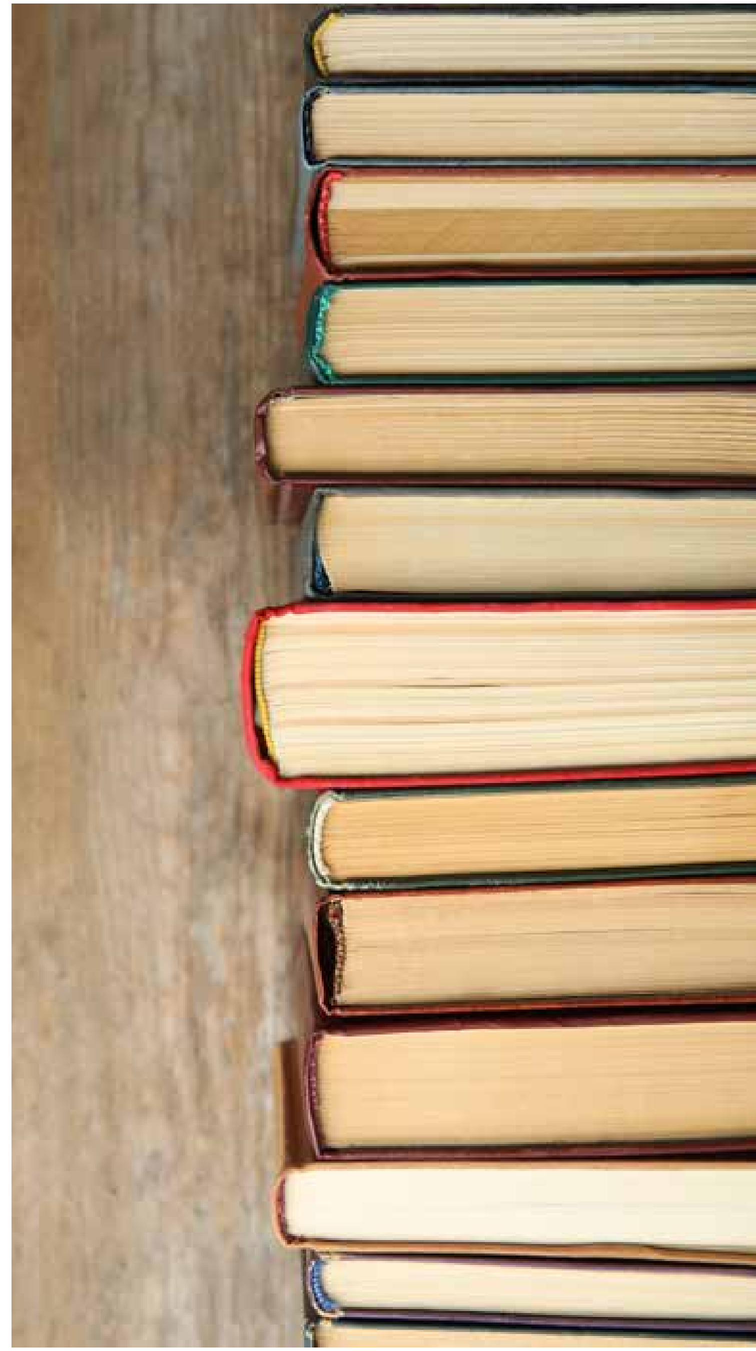


Chart 4 highlights an asset allocation shift by large and midsized university endowments from a more traditional allocation to something more akin to the endowment model. The chart compares their average asset allocations in 2002, 2009 and 2019.

As seen in the table below, larger universities have adopted a primarily similar asset allocation to the endowment model sample set, while midsized universities have certainly shifted in that direction but to a lesser extent.

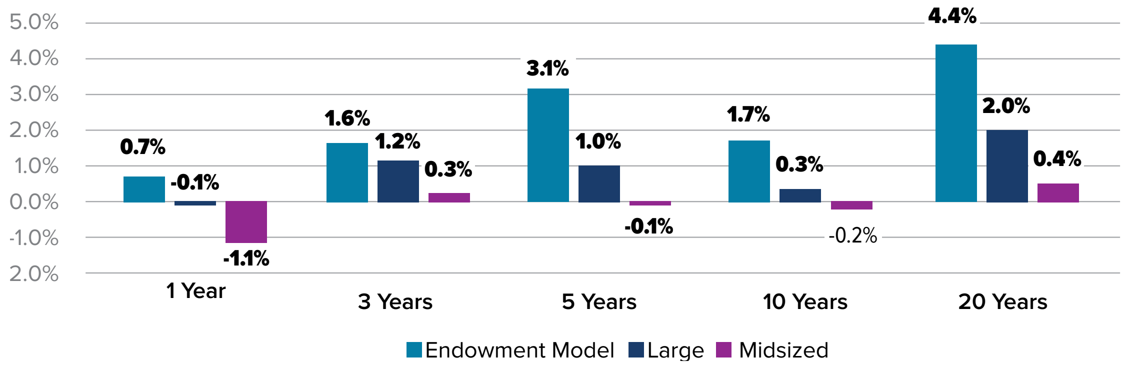
Average Allocation				Variance from Endowment Model	
	Endowment Model	Large	Midsized	Large	Midsized
Public equity	28%	31%	49%	3%	21%
Hedge funds	19%	21%	15%	2%	-4%
Private equity	31%	23%	11%	-8%	-20%
Fixed income/cash	8%	10%	17%	2%	9%
Real estate/Natural resources	14%	14%	8%	0%	-6%



Unfortunately, while imitation is the highest form of flattery, it does not necessarily translate into success. For this research, a benchmark was created by taking each segment of university endowments' average asset allocations across time. The benchmark is intended to replicate the passive exposure of each to determine whether performance came from “beta” (passive exposure to the asset allocation) or “alpha” (strong performance within each sub-component of the asset allocation). Chart 5 illustrates these outcomes.

CHART 5: Annualized “Alpha” as of (As of June 30, 2019)

Past performance does not guarantee future results.

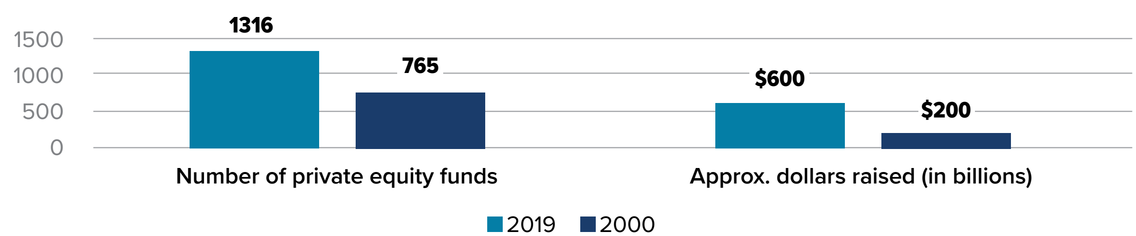


There are numerous explanations for this phenomenon (and this list itself is not intended to be exhaustive):

- The sample set and, to a lesser extent, the large universities have strong, well-compensated investment teams, which add value through skillfully allocating assets to the correct investment themes and/or third-party investment managers.
- The sample set and, to a lesser extent, the large universities characteristically have access to superior investment managers, which have limited capacity and are unavailable to smaller investors. This was especially evident in the fiscal year 2000 results, when the sample set enjoyed 30%-60% annual returns on their entire endowments, most likely due to strong results from venture capital managers.
- Midsized universities suffer from typically not having skilled full-time investment staffs or access to the same exclusive investment managers, and they most likely pay higher investment management fees for third-party managers, which may exhibit little to no alpha themselves.

Aside from these rationales that favor the historically strong success of the endowment model for its long-term adherents, the other possibility is the ever-increasing difficulty in successfully implementing the endowment model portfolio. When Yale and other large universities began implementing the endowment model approach, the amount of capital-chasing opportunities in alternatives was extremely limited compared to where it is today. Chart 6 shows how the number of private equity funds has nearly doubled, and the amount they have raised has nearly tripled over the last 20 years. After two decades of solid fundraising for the private asset industry, there is presently over $2 trillion of dry powder (capital raised by private asset funds to invest in deals but not spent yet) in private asset funds versus over $300 billion in 2000. In 2019, there were approximately $3.2 trillion in hedge fund assets under management versus approximately $260 billion in 2000.[4]

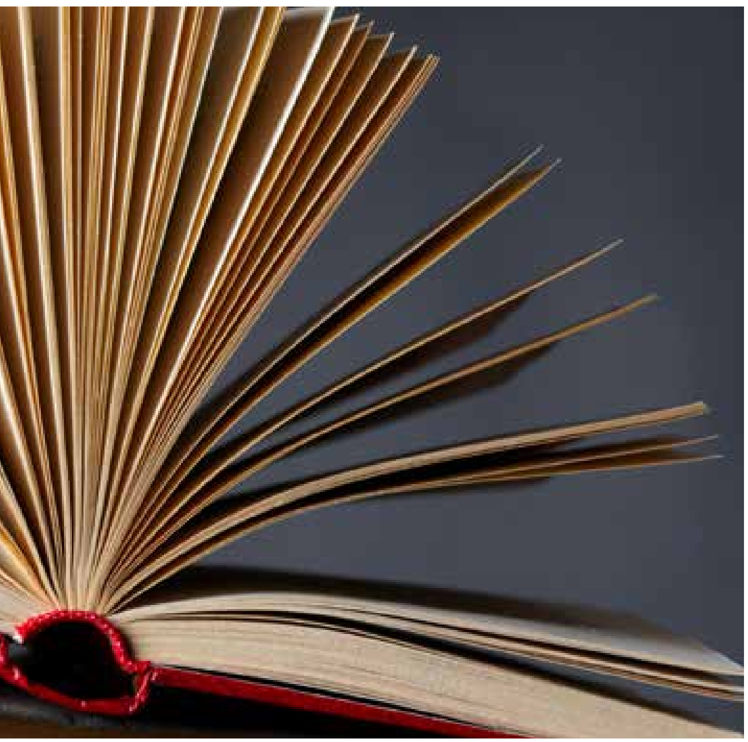
CHART 6: Private equity funds and amount raised



(Source: Preqin)

[4] Source: BarclayHedge

Largely, these factors have led to midsized university endowments unsuccessfully trying to chase the success of larger universities. While some midsized endowments have internal investment staff, the majority rely on third-party investment advisors to manage their assets, which can lead to a breakdown in truly replicating the endowment model. These advisors typically promote access to what they would describe as "great" opportunities when it comes to investing in private assets, but typically do not invest with the same high-quality roster of managers that the sample set of endowments are able to access. In addition, investment advisors tend to recommend the same third-party investment managers to a high volume of midsized clients. This can lead to investments in managers that are focused on raising large pools of assets with multiple varieties of funds, not generating strong investment returns for their clients. Finally, many advisors are not structured to offer collective buying power, so they cannot successfully negotiate attractive terms, such as lower fee schedules, with high-quality investment managers on behalf of their clients.



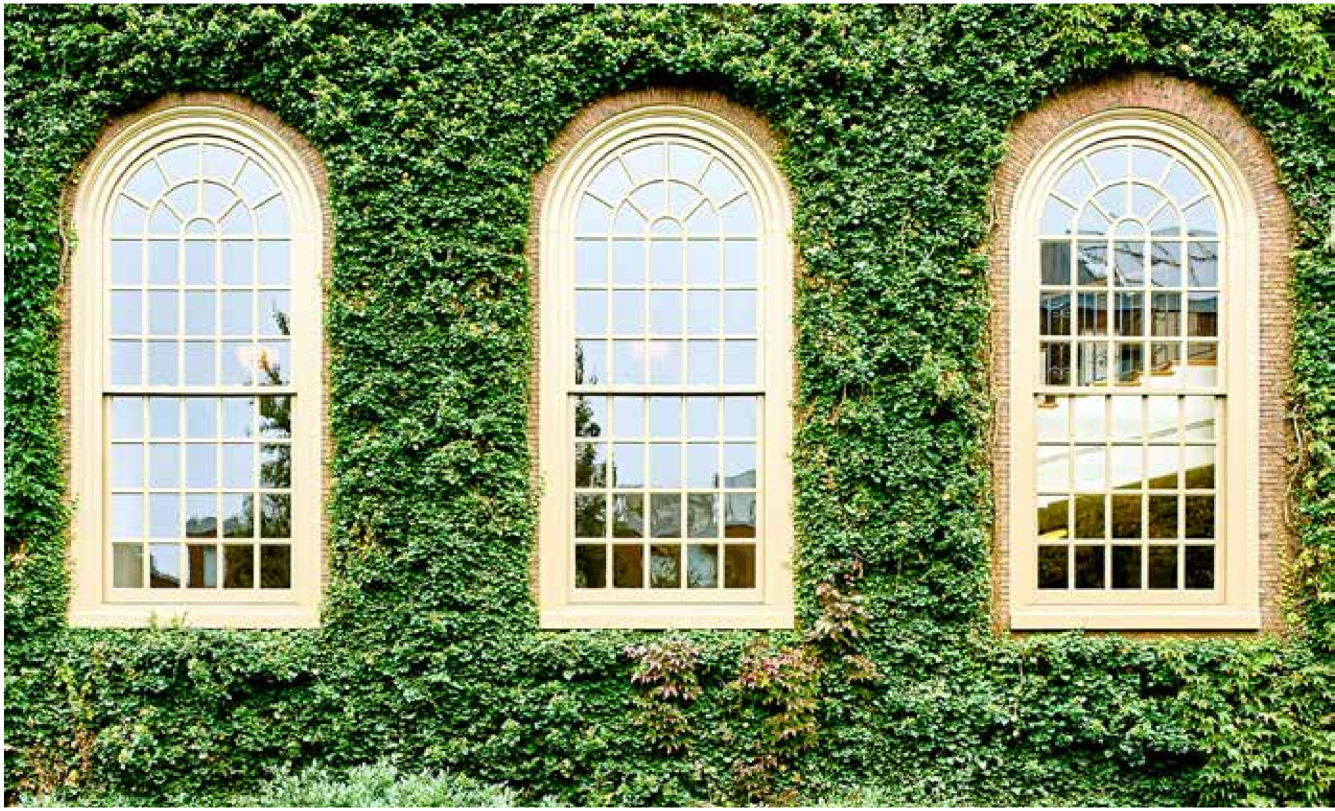
If a university is trying to replicate the endowment strategy, the staff should determine if their advisor is providing access to the right investment managers and is able to effectively manage risk. Some qualitative aspects that will help investors determine if this is the case with their advisor include:

- The average size of the underlying private equity funds in which they are investing by sub-strategy. If the fund sizes sound too large to allow the investment manager to invest in less efficient markets (such as early to mid-stage venture capital, middle-market buyouts or small capitalization equities), the investment advisor may be funneling client money to large, asset-gathering investment managers whose best days of risk-adjusted returns are likely now behind them due to the fact they are managing too much money.
- The majority of private equity funds should be oversubscribed, and hedge funds should be closed to new (and possibly current) investors. Experienced institutional investors often know the most highly sought-after investment managers in individual strategies. These managers typically limit the amount of capital they are willing to manage to guard against getting too large. It is a fight to gain access to those managers, so investing in investment managers that have had to limit investor flows into their funds is a strong signal the investment advisor is accessing high-quality managers with limited capacity.
- The investment advisor should have a documented client trade allocation policy, which ensures all clients, independent of size or when they became a client, gain access to the same underlying investment managers as all of the advisor's clients. Without this, clients risk having access only to an advisor's second-tier investment managers because first-tier managers' limited capacity for capital is taken up by larger or long-tenured clients.
- The investment advisor should have the ability to negotiate fees and terms with investment managers so their clients are able to access high-quality investment managers with more attractive terms. This can dramatically improve an investor's overall experience with various active investment management strategies versus

investing in a manager's standard third-party comingled vehicles. If an advisor is investing in traditional asset classes through third-party commingled funds rather than through separate accounts with the manager, there is a strong likelihood the investor is paying fairly high fees for active management. If an advisor is investing most of a client's capital through index and exchange-traded funds, that is a better solution than paying for high-cost underperforming active managers, but it is not how the most successful endowment investors have been investing their capital.

- The investment advisor should have access to–and the expertise to use–advanced risk management systems that go beyond viewing risk simply by looking at historical return data. Instead, there should be an adherence to comprehensive, forward-looking views of risk, utilizing sophisticated tools that rely on security level, portfolio company and real-time portfolio risk exposures.

If an investment advisor cannot display positive attributes regarding these areas, it is highly doubtful they will be able to successfully replicate the value-add experienced within the sample set of universities using the endowment model.



CONCLUSION

Adherents to the endowment model invest in a variety of strategies intended to truly diversify portfolio risk. Many midsized universities have moved toward an endowment model approach, but have done so without achieving a truly diversified portfolio that relies heavily on equities, hedge funds with significant equity and credit beta and private equity strategies. Given the highly uncertain environment caused by COVID-19, universities should consider taking time to reconsider their approach to their endowment's asset in an effort allocation to ensure the amount of volatility and illiquidity offers enough downside protection in the event of further material operational difficulties. While some investors have found success implementing the endowment model approach, it is most likely not suitable for most universities.

Andy Daly, CFA, serves as Managing Director, Investment Strategist in SEI's Institutional Group, where he is responsible for advising on and creating investment portfolios for SEI's institutional clients. Andy has over 20 years of investment experience involving the creation and management of alternative investment programs, as well as active traditional investment strategies. He regularly works with investment committees of university endowments in finding ways to create asset allocation strategies that align with the short- and long-term goals of the endowment and the university. He has been asked to present at numerous higher education investment conferences, including those produced by the National Association of College and University Business Officers (NACUBO) and the Association of Governing Boards (AGB).

All information contained herein is sourced from the 2019 NACUBO-TIAA Study of Endowments (NTSE) (March 2020). Large is NACUBO's reported performance of endowments over $1 billion. Midsized performance is the average of NACUBO's reported average peer groups ranging in size from $100 million to $1 billion in assets unless otherwise indicated.