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Think endowments and foundations

Clearing hurdle targets amid rising rates

Nathan Shetty
Head of Multi-Asset

The 2020 NACUBO-TIAA Study of Endowments highlights the continuing challenges endowments and foundations face in maintaining their real capital bases amid rising interest rates, mounting inflationary pressure and muted return expectations. Nathan Shetty, Nuveen's head of multi-asset, looks at how endowments and foundations can optimize their approaches to portfolio construction and begin to bridge the gap between their targeted hurdle rates and expected investment returns. Nathan shares his views on:

- Reassessing expected returns given today's capital markets assumptions
- Deploying active risk more efficiently to address the shortfall
- Taking a more holistic approach to illiquidity and rebalancing
- Turning ESG policies into actionable investment strategies

Bridging the gap amid rising rates and inflation

For much of the past decade, the endowment and foundation community has expressed concerns about the challenge of meeting their spending requirements while maintaining funding levels in an environment of low yields and muted return expectations. This challenge, in many ways, has become even more daunting over the past year. Endowments and foundations must now grapple with increasing inflation expectations, the impact of rising interest rates and new pandemic-related spending pressures facing many of the institutions' endowments and foundations support.

The 2020 NACUBO-TIAA Study of Endowments provides a fascinating window into the asset allocations, investment performance and spending decisions of higher-education institutions at this unique point in history. The report includes data from 191 endowments with more than $500 million in assets (which we refer to hereafter as large institutions) and covers the fiscal year ending 30 June 2020.

In setting their long-term return requirements, large institutions anticipated needing, on average, 4.7% to cover spending, 2.3% to meet long-term inflation expectations and 0.9% for fees and expenses. These three primary components add up to a hurdle rate of 7.9%. This is meaningfully higher than the 7.5% that is commonly cited as the typical hurdle rate for endowments. Unfortunately, the median five-year annualized return for large institutions in FY2020 was only 5.0%, and top-decile returns were just 6.6%.

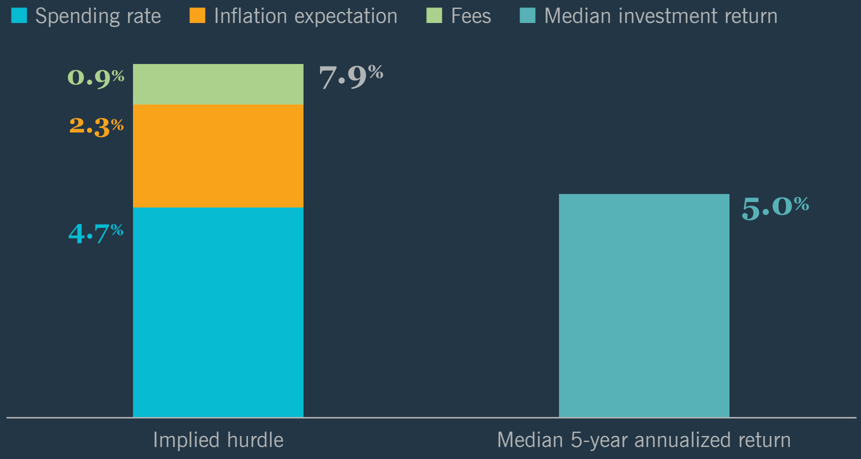
Bridging this gap will require endowments and foundations to be more efficient in their search for diversified sources of return, while using all the levers at their disposal related to risk budgeting, liquidity management and rebalancing. In a rising-rate, inflationary environment, it is critical that endowments and foundations understand their portfolios' exposure to the primary factors that drive return: rates duration, credit, equity beta and idiosyncratic.

In this Q&A, Nuveen's Nathan Shetty looks at how endowments and foundations can optimize their approaches to portfolio construction, capitalize on current opportunities and enhance their ability to fulfill their spending goals.

FIGURE 1: **Decomposing the gap**

The median five-year returns of large endowments as of 30 June 2020 fell nearly 300 basis points short of endowments' implied forward-looking hurdle rate.

Hurdle vs. reality for $500 million+ endowments



Source: 2020 NACUBO-TIAA Study of Endowments and Nuveen estimates.

ABOUT THE 2020 NACUBO-TIAA STUDY OF ENDOWMENTS

The annual report analyzes the financial, investment and governance policies and practices of the nation's endowed institutions for higher education. The 2020 report reflects the responses of 705 institutions representing $637.7 billion in endowment assets, including 191 institutions that have at least $500 million in endowment assets. For the purposes of this report, we focus on the survey results reported by these large institutions.

Reassessing expected returns given today's capital markets assumptions

Key findings from NACUBO 2020

Return targets vs. actual return: Of the large institutions that reported having a stated return target in 2020, the median targeted return was 7.4%. The median five-year annualized return for these institutions was just 5.0%, and the median 10-year annualized return was 7.3%.

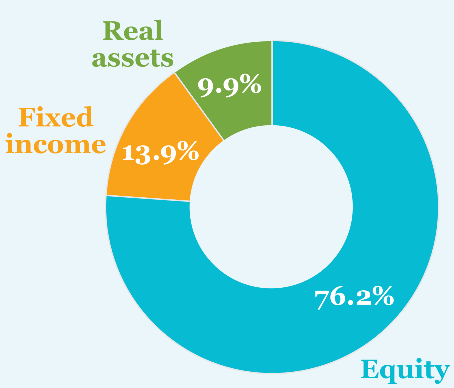
Average asset allocation and projected returns: Large institutions allocated roughly three-quarters of their total portfolios to equities, including 40% in what is classified as marketable alternatives, private equity and venture capital. Within the fixed income allocation, more than half (55%) of endowments' fixed income portfolios was allocated to investment-grade securities, and non-investment-grade and private credit together accounted for 22%. Within real assets, nearly three-quarters (72%) was allocated to private real estate and private energy and mining. Nuveen used its capital markets assumptions as of March 2021 to generate the projected annualized returns and volatility of a portfolio with this allocation over the next five years.

FIGURE 2: **Return targets vs. actual return**

TARGETED	ACTUAL				
7.4%	5.0%	5.3%	5.6%	6.1%	6.6%
Median target return	50th percentile (median)	60th percentile	70th percentile	80th percentile	90th percentile

Source: 2020 NACUBO-TIAA Study of Endowments.

FIGURE 3: **Average asset allocation of large institutions**



4.9%

Projected annualized return of a portfolio with this allocation, 2021 – 2026

11.5%

Projected volatility of a portfolio with this allocation, 2021 – 2026

Source: 2020 NACUBO-TIAA Study of Endowments and Nuveen estimates.

To what degree should endowments and foundations adjust their long-term capital markets projections because of the COVID-19 pandemic?

Interest rates are the starting point for any discussion about capital markets assumptions. Interest rates are embedded in and contribute to every asset class's expected return, and nominal interest rates are a direct reflection of real economic growth and inflation expectations.

In the bigger picture, the pandemic, in and of itself, will likely have a minimal impact on long-term capital markets assumptions. How central banks and governments have responded to the pandemic, however, is a much different story. Months of aggressive stimulus efforts will likely lead to higher long-term interest rates and likely higher taxes as governments look to address the massive deficits created by the stimulus efforts.

Long-term growth, which is one of the key determinants of long-term interest rates, is a function of productivity and demographics; these two forces together provide the upper limit on economic growth. Worldwide demographics have been trending in the wrong direction for multiple decades. Demographic measures such as a declining proportion of the total population that is of working age, declining population growth rates and increased life expectancy all weigh on economic growth. These trends have been particularly pronounced in countries that are currently the biggest contributors to global GDP growth. Even in developing countries, population growth is slowing, albeit from higher levels than in the developed world.

On the other side of the equation, productivity gains have been muted globally since the Global Financial Crisis. Productivity gains in the 2010s were about half of what was seen in the previous decade. The United States has seen an increase in productivity since the pandemic, and rising productivity can serve to dampen inflation. But U.S. worker productivity would have to see significant additional increases to offset the current inflationary pressures.

What is your outlook for inflation? How should endowments and foundations account for the unpredictable nature of inflation in their portfolios?

Despite unemployment levels that remain elevated, inflation expectations increased dramatically in the spring of 2021, with the U.S. Consumer Price Index increasing in May at its fastest rate since 2008. This has set off widespread debate about what type of inflation regime we are entering. Much of this discussion in the media tends to suggest binary outcomes: either the current price increases are transitory and related to supply chain disruptions and the reopening of the economy, or we are returning to the double-digit inflation of the 1970s.

I believe that a midpoint scenario is far more likely, with inflation in the 2.5% to 3.5% range. The supply chain disruptions in lumber, resins and other materials will likely correct themselves as inventories are rebuilt. But more structural sources of inflation, such as the shift in Fed policy to average inflation targeting, disconnects in the labor market and low housing supply, will persist for some time.

Again, this transition into an inflationary, rising-rate environment emphasizes the importance of understanding a portfolio's factor exposures. In particular, endowments and foundations need to reconsider what role rate-sensitive fixed income will play in portfolios going forward. As inflation increases, so too does the likelihood that the correlation between bonds and equities will become positive. And if that happens, the argument for the value that rates-sensitive bonds bring to a portfolio is tenuous, at best.

It is important for institutions to realize that there are two primary ways to address the uncertainty, or stochastic risk, that inflation represents. You can look to hedge this risk by owning assets that are positively correlated to different inflation measures in the short term, like commodities or loans as pictured in Figure 4. Or, you can look to generate returns that are greater than inflation over time, increasing the chance of positive real returns that can contribute to fees and spending. Historically, many asset classes outpaced inflation (Figure 4), and given the long time horizons of endowments and foundations, I argue that they should focus more on dominating inflation rather than trying to hedge short-term spikes. However, asset classes that performed well in the past, may not in the future. Investors looking to outpace inflation going forward would do well to consider alternatives that are well-suited for this role, including infrastructure, bank loans and real assets, particularly private real assets.

Given the muted long-term return expectations, what levers are available to endowments and foundations to hit their hurdle rate?

There are five primary levers institutions can pull to deal with the lower-for-longer environment: 1) taking more risk; 2) being more efficient in deploying risk by focusing on risk-factor exposure rather than asset allocation; 3) removing constraints such as limits on liquidity and leverage; 4) being more dynamic in their asset allocation; and 5) lowering their return expectations. This last lever may not be palatable given the institution's spending needs or the grant-making mandate.

The challenge for endowments and foundations is determining which combination of these levers makes the most sense to use. This involves realizing that many of these levers are interconnected. For example, if an institution is more efficient in deploying risk, this allows the institution to remove constraints and be more dynamic in its asset allocation. Conversely, removing constraints and allocating more dynamically allows you to use risk more efficiently.

Taking more risk is the easiest lever for endowments and foundations to pull, and they have been aggressive in doing so over the past decade. This is reflected by the fact that allocations to private assets have nearly doubled since 2010. Much of this growth has been driven by using private equity as a substitute for public equity.

But if you are going to take on more risk, it is essential that you be more efficient in deploying that risk. We believe that doing so starts with taking a risk factors-first approach to portfolio construction. This approach is built on the idea that investors are compensated for owning risks, not asset classes. Institutions should start by decomposing their liabilities and then understanding what risks they want to own and in what proportion. While "spending + inflation + fees" works as a general construct for decomposing liability exposures, it is possible to build and manage against more elaborate, hybrid constructs around spending policy or return objectives. Once the liabilities have been properly decomposed, endowments and foundations should construct portfolios around getting exposure to those risk factors.

With this factors-first approach, the asset allocation becomes a by-product of the portfolio construction, not vice versa. This approach is so beneficial because it allows

EXPLORE FACTORS-FIRST INVESTING AND PUBLIC AND PRIVATE REAL ASSETS

To learn more about Nuveen's research into how institutional investors can optimize their approach to portfolio construction and better utilize alternative asset classes, visit:

Think portfolio construction: Using a factors-first lens to find opportunities in today's alternatives market

Think real assets: Optimizing pension plan outcomes using public and private real assets

FIGURE 4: **Managing inflation: Why empirical data paints a misleading picture**

Over the past several decades — a period marked by the steady decline of interest rates and disinflationary conditions — core bonds and other rates-driven exposures have dominated inflation. This is reflected in the low probabilities of negative real returns for rates-driven asset classes over the past 23 years. It's interesting to note that while U.S. aggregate bonds had the lowest probability of a negative real return over the past 23 years, they also had significantly negative 5-year rolling correlations to both realized and expected inflation, indicating that they may not have served investors well as a short-term inflation hedge.

As we enter a period of rising rates and increasing inflation, endowments and foundations will need to look elsewhere for exposures that have a better chance of outpacing inflation while also providing diversification from equities. Nuveen's capital markets assumptions show that the asset classes with the lowest forecasted probabilities of generating negative real returns over the next five years are very different than the asset classes that were most likely to achieve this over the past two decades. Endowments and foundations should consider an increased role for real assets, particularly private, in portfolios as we head into a more inflationary, rising-rate regime.

	Empirical data				Forecast
	Correlation to realized inflation	Correlation to expected inflation	Annualized volatility	Empirical probability of negative real return	Probability of negative real return
U.S. aggregate bonds	-0.25	-0.89	3%	4%	61%
High yield bonds	0.19	0.05	9%	7%	49%
TIPs	0.01	-0.71	6%	12%	59%
Loans	0.30	0.26	6%	13%	43%
U.S. small-cap equities	0.13	0.27	20%	15%	44%
REITs	-0.01	-0.05	21%	16%	48%
MLPs	0.19	0.22	23%	19%	46%
U.S. large-cap equities	0.12	0.26	15%	21%	43%
Emerging markets equities	0.11	0.13	22%	25%	42%
EAFE equities	0.11	0.18	17%	30%	36%
Infrastructure	0.00	-0.04	14%	32%	41%
Commodities	0.33	0.13	16%	49%	53%
Cash	0.12	0.02	1%	81%	100%

Source: Nuveen calculations; Bloomberg monthly data Jan 1997 – Mar 2021, BOFA Mature US Pension Plan AAA-A Corporate Curve Discounted Index, CPI Index, MSCI ACWI Total Return, Moody's BBB Credit Spread to 10 yr, Interest rate factors derived from the Federal Reserve's DKW term structure model at https://www.federalreserve.gov/econres/notes/feds-notes/DKW-updates.csv; Prob of (-) real return is the chance rolling 5 yr returns are less than CPI assuming a normal distribution, correlation to realized is the median correlation of rolling 5 yr returns and changes in CPI, correlation to expected to the median correlation of rolling 5 yr returns and changes in 10 yr Expected inflation (derived using the Fed's DKW model), Nuveen 31 March 2021 5 yr CMA estimates.

you to remove arbitrary constraints related to liquidity and leverage and be more dynamic in allocating to areas of the market where risk is being rewarded richly at the time. This allows you to be more direct in matching the exposures that drive returns of the assets with the exposures that drive liabilities. Our current research illustrates how using this approach to stitch together public and private assets in a portfolio in a coherent way can lead to improved outcomes.

From a geographic perspective, where are you seeing the most attractive opportunities today?

Emerging markets (EM) debt today is particularly attractive for longer-term investors, such as endowments and foundations, that seek to extract the value risk premia that exist outside of developed markets. EM debt opportunities are very focused on Latin America and geared toward reflation of the real economy. As a result, EM debt is very cyclically oriented, which is a valuable exposure to have amid the global recovery from the pandemic. EM equity opportunities, on the other hand, are centered in Asia, including a significant amount of technology as well as economies that rely on energy and other cyclical imports.

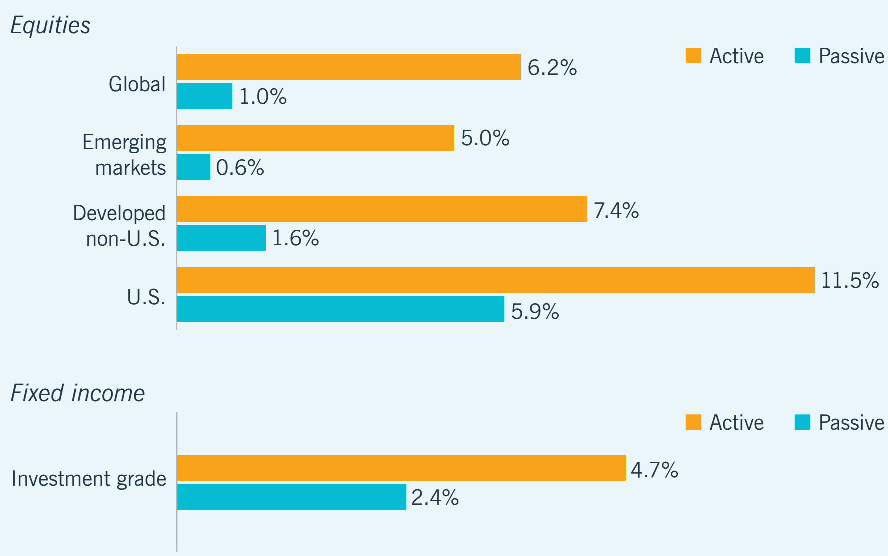
Another area that I am particularly constructive on now is international developed markets equities. Because Europe, the United Kingdom and Japan have lagged China and the United States in terms of the vaccination rollout, these international developed markets have yet to see earnings growth related to the reopening of their economies be fully priced by markets. In the United States, conversely, the economic expansion has been nothing short of remarkable and should continue to be robust for a while. But my concern is that the pace of growth — or the second derivative of growth — will decline, putting pressure on current U.S. equity valuations. This combined with our expectation for a weaker U.S. dollar and rising inflation in the United States further bolster the case for international developed markets.

Deploying active risk efficiently to address the shortfall

Key findings from NACUBO 2020

Large institutions' active vs. passive allocations: Across all major public equity and fixed income asset classes, large institutions allocated more to actively managed strategies than passive ones.

FIGURE 5: **Average allocation as a percentage of the total portfolio**



Source: 2019 NACUBO-TIAA Study of Endowments.

How can endowments and foundations use their risk budgets more efficiently to bridge the gap between their return requirements and their projected returns?

While investors spend most of their attention on budgeting active risk, it is important to realize that there is a risk budget associated with a portfolio's beta. And this beta risk budget will dominate an institution's ability to meet its objectives. We think that a dynamic "risk factors-first" approach to budgeting beta exposure is essential to meeting longer-term objectives and managing the changing risk landscape.

When budgeting active risk, there are two dimensions to consider — pursuing alpha through active managers and tactical asset allocation (TAA), often referred to as "market timing" alpha. Often, institutions focus the vast majority of their risk budgets on active managers and overlook TAA or risk budgeting in the beta space as a source of incremental value. In an environment with muted return prospects, it is essential for institutions to use all available levers.

Let's assume that a portfolio's active managers deliver 3% tracking error with a 0.5 information ratio. This means that they are adding 1.5% of returns at the fund level from security selection before fees. If you are trying to generate returns of 7.5% in a low-rate environment, you will have to focus your efforts on capturing the other 6% more efficiently, which boils down to your strategic asset allocation (SAA) or TAA. You need to use every available lever to make up that gap, and TAA — or being more dynamic in your beta allocation — is an underutilized source of incremental value.

What roles do active management and tactical asset allocation play in reducing portfolio risk in a rising-rate environment?

The market environment during the pandemic has served as a stark reminder of the importance of understanding each asset class's factor exposures — and having the ability for active managers to tactically respond to changes in how the market is pricing various factors at any given time. Ten-year treasury rates increased from around 60 bps in April 2020 to 160 bps in March 2021, and credit spreads have tightened considerably since mid-2020 as investors regained confidence in an economic recovery. This environment has been very supportive of fixed income portfolios with greater exposure to floating-rate instruments that have relatively low rates exposure and high credit exposure, such as loans. Rates risk also played a massive role in determining the shift in equity style leadership starting in November 2020. Value equity's outperformance of growth equity in late 2020 and early 2021 is largely explained by growth equity, which is a longer-duration asset, having a much higher exposure to rates risk.

The risk reduction component of TAA is especially important in a rising-rate environment. The Great Moderation of the last few decades will not repeat itself, and it is extremely unlikely that long-term bonds will deliver the same level of returns that they did over the past 30 years. As a result, bonds' ability to serve as a reliable return generator and a ballast against riskier assets in the portfolio may shift.

That means that you need to be more tactical in the short term in finding ballasts elsewhere based on how the market is pricing risks. This is exactly what TAA is designed to do. A purely static policy portfolio that is reevaluated every three to five years means that the total portfolio's risk and return profile is at the mercy of how the market is pricing that risk at any given time. If you have a static allocation, you are stuck owning the changing risks.

TAA has evolved significantly from its first iterations. Early TAA practitioners simply tried to time decisions of allocating between bonds and equities. Today, managers have many more ways to deploy a more sophisticated approach to TAA. The rise of derivatives, more granularity in factor exposure, deeper analytical methods and the increasing influence of macro factors because of central bank and governmental policy all contribute to the rise of the more advanced approach to TAA.

When it comes to risk budgeting in the alpha space, what asset classes are currently most conducive to active management?

Given that fees are one of the three components of the 7.9% target return for endowments, it is easy to see why so much of the active risk decision centers on where fees are justified. But rather than thinking about *where* to deploy your risk budget on active managers, the more appropriate question is *how* to do so efficiently.

Certainly there are asset classes or sub-asset classes — such as fixed income because of its technical characteristics and complexity or EM equity because of its breadth — that provide active managers more opportunity to beat the benchmark. But even in the most efficient markets, there are active managers who are worth their weight in gold.

The key is finding managers, in any asset class, who can outperform in the context of the portfolio. Rather than focusing on finding managers who can beat a benchmark, institutions should focus on finding managers who deliver exposures that add incremental value and diversification relative to the rest of the portfolio — both the beta and the alpha allocations. This thinking aligns with the need to shift from benchmark-relative investing to a true outcome orientation. Traditional benchmark-relative management starts by setting the policy portfolio and then populates each market exposure with active managers, passive vehicles or some mixture of the two. This approach is inefficient because it does not concretely consider how an active manager under consideration interacts with the other active managers and the entirety of the underlying market exposures.

To answer the question of where fees for active managers are justified, institutions should spend their risk budgets on managers with high concentration and high active share. Conversely, institutions should guard against managers that, when you look beneath the hood, are actually running higher-risk, higher-beta strategies that do not offer security-selection alpha that is less correlated with the rest of the portfolio. Going even further, you need to understand what exposures an active manager is bringing to the portfolio and how those relate to the portfolio's existing exposures.

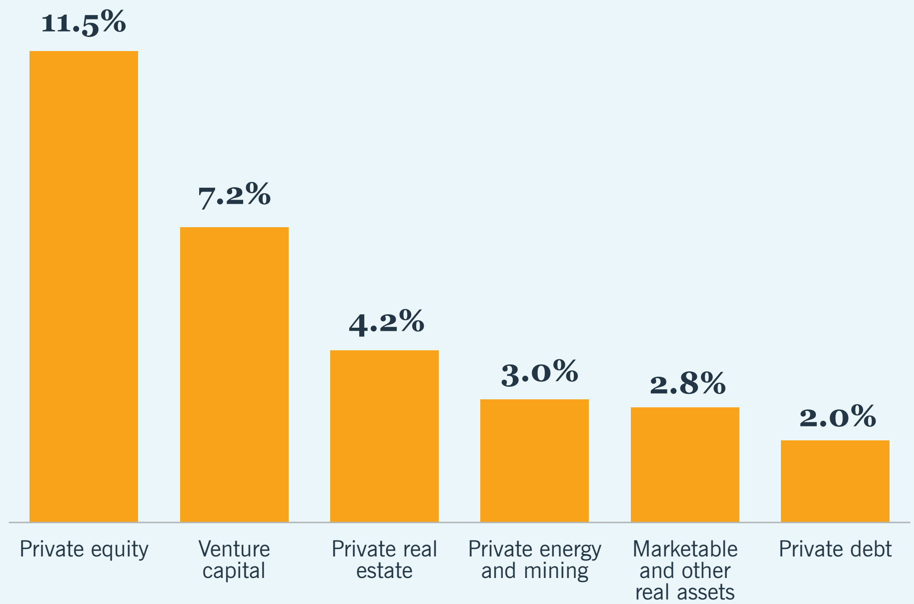
Managing fees certainly is an important part of an institution's active vs. passive decision making, but fees should not be the totality of that discussion. Remember, not every exposure can be captured passively. If an institution only thought about managing active fees, that might lead the institution to reduce its overall allocation to private asset classes or use all of its active budget in private asset classes, thus precluding the opportunity to use active managers that add significant value in public asset classes.

Taking a more holistic approach to illiquidity and rebalancing

Key findings from NACUBO 2020

Large institutions' allocations to private asset classes: Private or illiquid asset classes accounted for about one-third of large endowments' asset allocations in 2020. Private equity and venture capital represented the majority of this, while private real estate and private energy and mining also had sizeable allocations.

FIGURE 6: **Average allocation to private asset classes in 2020**



Source: 2020 NACUBO-TIAA Study of Endowments.

Given that endowments' and foundations' exposure to private asset classes has approximately doubled in the past decade, are you worried that these institutional investors are over-exposed to illiquids?

Their private asset exposure does not raise any red flags based simply on the size of those allocations. What I do worry about, however, is that some endowments and foundations have built this exposure without thinking about the role that illiquidity and sequencing of downturns play in meeting their liabilities — which is always a function of the composition of the remainder of their portfolio. Illiquidity should be viewed as another risk factor that needs to be balanced in a portfolio context, just like equity beta or duration.

Because endowments and foundations essentially have an infinite investment time horizon, that suggests that they are ideally suited to capture the illiquidity premium in private asset classes. That is true to an extent, but you also have to think about the sequence of drawdowns relative to your liabilities and the resources you can draw on to meet those annual spending rules.

During the Global Financial Crisis, which was before endowments' and foundations' exposure to private asset classes surged, many of these investors were forced to sell private assets at extreme haircuts. They had to do this to generate liquidity, even though they had a very good idea that those asset values would quickly recover, which many of them did. This forced deleveraging is a very real threat when it comes to owning illiquid assets.

Endowments and foundations should think very seriously about their tolerance for public market drawdowns and how that sequencing affects their ability to meet their liability obligations. This should inform the amount of private assets that endowments are able to own.

Another — and related — concern that I have about endowments' and foundations' exposure to private asset classes is that it limits your ability to be tactical in your asset allocation. As I said previously, TAA is an important and often overlooked return generator. But it is very hard to be dynamic in your asset allocation if a large portion of your portfolio is tied up in illiquids. This is a hidden cost that needs to be incorporated into the net impact of the illiquidity premium that endowments and foundations seek to harvest.

Using derivatives can alleviate some of the roadblocks to TAA, risk management and factor drift. But deploying derivatives effectively requires additional expertise and infrastructure, and smaller institutions may not have the resources or staffing levels internally to properly implement derivatives.

One of the benefits of the risk factors-first investment approach is that you can decompose the exposures you are hoping to get from illiquids and replicate some of the underlying contributors in liquid assets. This allows you to essentially liquify that portion of your illiquid exposures that are not idiosyncratic or directly related to what you are trying to harness by going into illiquids. This frees you up to be more tactical in your asset allocation and more efficient in your risk allocation.

Are there any private asset classes that endowments and foundations are over- or under-exposed to?

Some endowments and foundations operate under the presumption that the illiquidity premium is always positive in every asset class. And there is a growing body of research that suggests that this is not necessarily true.

This presumption, along with the cache that can come with investing in the higher-profile private equity and venture capital funds, has led some endowments and foundations to plow into private equity and venture capital without fully assessing whether they are being adequately compensated for the lock-up, the risk and the significant dispersion of outcomes by vintage year and by manager.

Conversely, I think that private credit and private real assets are asset classes that endowments and foundations may want to consider owning more of in an environment of rising rates and increasing inflation. Because of the floating-rate nature of middle market loans and the illiquidity premium that provides a boost to yields, private credit can be an effective alternative source of income with a risk profile that varies significantly from other types of debt. Private real assets, in particular private infrastructure, can help address many of the inflation risks that are baked into the hurdle rate if the institution wants to maintain its real capital base.

How can endowments and foundations improve their approach to portfolio rebalancing?

Determining your rebalancing policy certainly is not as exciting as active vs. passive or liquid vs. illiquid questions. But the impact of your rebalancing decisions could far outweigh all of those other decisions that get so much attention. I researched the topic earlier in my career, and I found that the difference between an optimal and suboptimal rebalancing policy can range from 50 to 100 basis points a year.

It is important to realize that the decision of whether or not to rebalance is absolutely an active decision — executing the rebalance is a value trade and delaying the rebalance is a momentum trade. Using drift to express tactical views is a fine approach as long as institutions have a consistent method or process for making this decision and they have attribution mechanisms in place to account for how drift contributes to performance.

Given that rebalancing has such a significant impact, it is essential for the rebalancing protocol to be a thoughtful, coherent part of the investment policy statement and be fully aligned with the institution's objectives. Standard rebalancing approaches do not account for changes in risk; this inherently puts the rebalancing policy out of alignment with the strategic asset allocation. A first step in incorporating risk into the rebalancing policy is to rebalance based on asset classes' marginal contributions to tracking error risk rather than their absolutes weights.

Another major benefit of the risk factors-first approach is that it helps you see that not every asset class's drift from the desired exposure has an equal impact on the total portfolio's tracking error risk. For example, if a portfolio's short-duration bond allocation drifted down 5% and its cash allocation drifted up 5%, those movements would have very little impact on the portfolio's risk exposure. Conversely, if the short-term bond allocation drifted down 5% and the energy allocation drifted up 5%, that would have a much bigger impact on the portfolio's total risk because of how volatile energy is.

More and more, we see institutions migrating away from calendar-based rebalancing policies. We feel that this is a positive development because it shows that institutions are being more thoughtful in using rebalancing to capitalize on shifting risk and return opportunities. To further capitalize on this opportunity, we recommend that endowments adjust how tight their trigger bands are to account for the relative volatility of each asset class. Endowments and foundations also need to realize that rebalancing is about the trade-off in creating stability in the strategic allocation assumptions, the transaction costs of rebalancing and the potential for additional return, assuming that momentum is being rewarded.

What role does exposure to illiquids play in endowments' and foundations' approach to rebalancing?

An institution's exposure to illiquid assets needs to be factored into the rebalancing policy. Just as high exposure to illiquids can limit an institution's ability to be tactical in its asset allocation, institutions need to realize that their illiquid exposures will affect how they rebalance among their liquid allocations.

Stale pricing, or long spans since a private asset was last marked to market, will eventually catch up with institutions and impede their ability to rebalance effectively. One way to counteract this is by anticipating the extent to which illiquids in the portfolio can be revalued through public proxies and then incorporating this into the rebalancing policy.

The early stages of the COVID-19 pandemic highlighted how important is it to think about liquidity when establishing a rebalancing policy, as well as how problematic using an arbitrary, rules-based approach can be. Back in the spring of 2020, institutions using calendar-based rebalancing would have been stuck executing trades at varying points of the Federal Reserve's efforts to restore liquidity to fixed income markets.

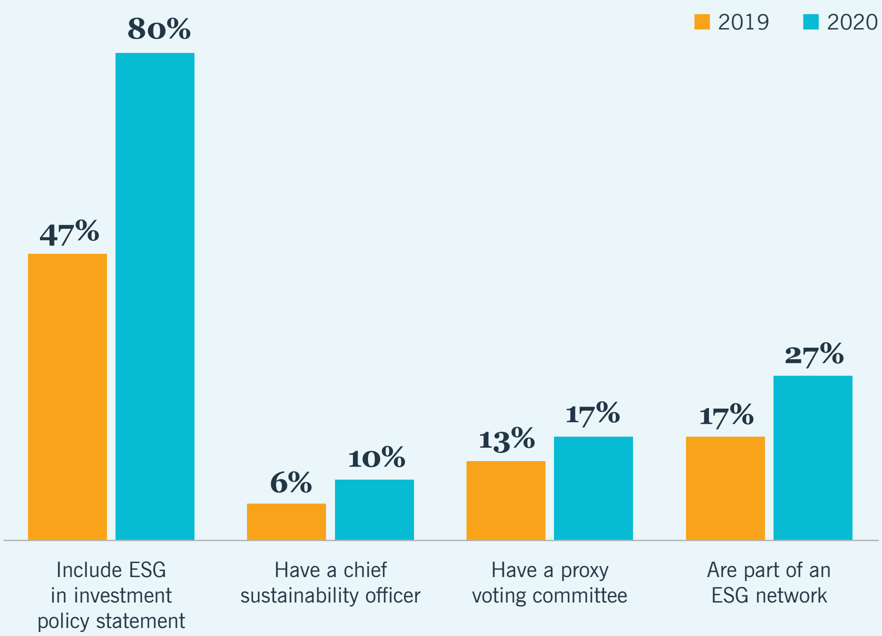
Institutions with drift-based triggers faced a similar conundrum. Institutions that came into 2020 at typical ACWI/AGG portfolio targets would have hit the 5% drift mark around March 9, right at the height of the liquidity vacuum. If they were able to delay their rebalancing just a few weeks, they could have executed their rebalance when liquidity conditions were much more favorable. But, again, the decision to delay that rebalance would have been an active management decision. This all reinforces the need for institutions to be thoughtful in creating a rebalancing policy that aligns with their overall objectives and reflects the portfolio's liquidity and factor exposures.

Turning ESG policies into actionable investment strategies

Key findings from NACUBO 2020

Nearly two-thirds of large endowments factor responsible investing into their investment manager due diligence and selection processes. There are a host of other ways that endowments and the institutions they support are taking steps to implement responsible investing practices, and each of these initiatives saw an increase in adoption from 2019 to 2020.

FIGURE 7: **Endowments' adoption of responsible investing initiatives**



Source: 2020 NACUBO-TIAA Study of Endowments.

How can endowments and foundations improve their ESG integration efforts?

There is widespread agreement among endowments and foundations about the value of incorporating ESG into their investment efforts. But talking about ESG is a very different thing than actually investing in it. As a result, there is a long way to go in terms of endowments and foundations turning ESG principles into actual investment strategies.

To bridge this gap, I think that it is important to acknowledge that ESG investing is about more than just risk and return. The conversation needs to go beyond simply how incorporating ESG factors would affect the portfolio's performance and instead start with how responsible investing — for however the endowment or foundation chooses to define it — should align with the organization's larger mission.

Stakeholder communications are an integral part of these discussions as well. Endowments and foundations are part of society, and they serve a wide collection of stakeholders, including students, donors, faculty, university administrators, state and federal governments, and the local community. In addition to thinking about how you actually implement an ESG investment strategy, you need to spend just as much time thinking about how you will communicate those decisions with all of your stakeholders. And given the diversity of those stakeholder groups, that is no small task.

It is also important for investors to realize that many ESG factors are directly related to the current low-return environment. For example, I talked earlier about how global demographic trends are a headwind to economic growth. But improved gender equity could serve as a catalyst for improved productivity, thus countering some of the broader, unfavorable demographic trends. In terms of the environment, the conversion to cleaner energy could have both positive and negative effects on returns, and this impact will vary across sectors and regions. Certainly, investors need to factor these trends into their capital markets assumptions and investment analysis.

Has the COVID-19 pandemic changed endowments' and foundations' thinking regarding the role that ESG plays as a risk-mitigation tool?

Secular trends such as ESG should be evaluated over years and decades, not months and quarters. So trying to judge the efficacy of ESG in terms of providing risk mitigation during the pandemic is not an appropriate way to look at it.

But it is safe to say that the pandemic — as well as the social unrest related to racial inequality — has emphasized the importance of the social and governance aspects of ESG. In the previous decade, most of the attention in ESG was focused on climate change, carbon emissions and other environmental issues. Those certainly are still front and center for endowments, but 2020 reminded everyone how much the S and G matter.

The pandemic certainly has the potential to shape some long-term secular trends that are linked both directly and indirectly to ESG considerations. In the United States and many other developed countries, we have seen a sharp reversal of the urbanization trend as many people with means have been seeking less dense living conditions. If this urbanization reversal proves to be enduring, it will affect variables related to climate change. Similarly, work from home reduces dependence on city centers and transportation. It is also worth noting that rural areas tend to have higher fertility rates than urban areas, a dynamic that could help counter the larger trend of declining population growth.

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