Endowments Under Pressure:
Understanding Regulatory and Fiscal Risks in the U.S. - Lessons from Harvard

2025

Executive Summary

This report aims to understand the impact of recent actions and suggested policies from the current U.S. administration on endowment funds. We walk through two potential scenarios – a ***limited policy scenari***o and a ***full policy scenario*** – to explore how the research funding cuts, tax changes, and changes on the status of international students may impact the overall asset value through changes in the long-term investment strategy and payout rates. Our report examines the case of the largest endowment in the United States – Harvard University.

Both scenarios show a momentous impact. By 2040, the size of the endowment will be decreased by ~30% in the limited policy scenario and by 40% in the full policy scenario, when compared to what it would have been under a going concern scenario. Furthermore, when we correct the results for inflation, it becomes clear that the Harvard endowment is slowly but steadily being depleted – all else being equal.

We suggest these results call for U.S. endowments to think through different scenarios, weighing the trade-off between investment risk, financial sustainability, and what payouts they can manage long term. If the policies suggested by the U.S. administration become reality, endowments in the United States will need to make hard decisions. The time to prepare is now.

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Introduction

U.S. endowment funds have been a staple of the investment landscape for decades. Often seen as having the luxury to “sit on money”, endowments have been structured to support educational institutions in perpetuity. However, this longstanding model may be facing unprecedented challenges. Over the last few months, federal funding to universities and the regulatory environment surrounding endowment funds have become shaky. The now shaky ground on which universities stand poses a threat to the long-term sustainability of their endowments.

In a previous Ortec Finance publication, **Weathering the storm: How US endowments can navigate liquidity in an uncertain market,** we explored the short-term impact of policy change on the liquidity constraints of U.S. endowments. This report, in turn, focuses on the long-term impact of policy changes on U.S. endowments by exploring two potential scenarios: a limited policy and a full policy scenario for the case of Harvard. While proposals are changing day by day, actions suggested by the current U.S. administration against universities and their endowments have included cuts to research funding, changes in tax status, and the revocation of visas for international students. We will explore the narratives on three cases: a 2024 policy landscape defined by no policy and regulatory change, a limited policy and regulatory change, and a full policy and regulatory change.

The overarching conclusion posits that, should the full policy be enacted, the combination of higher taxes and the expectation of endowments to financially support their universities at a higher rate is not a sustainable solution.

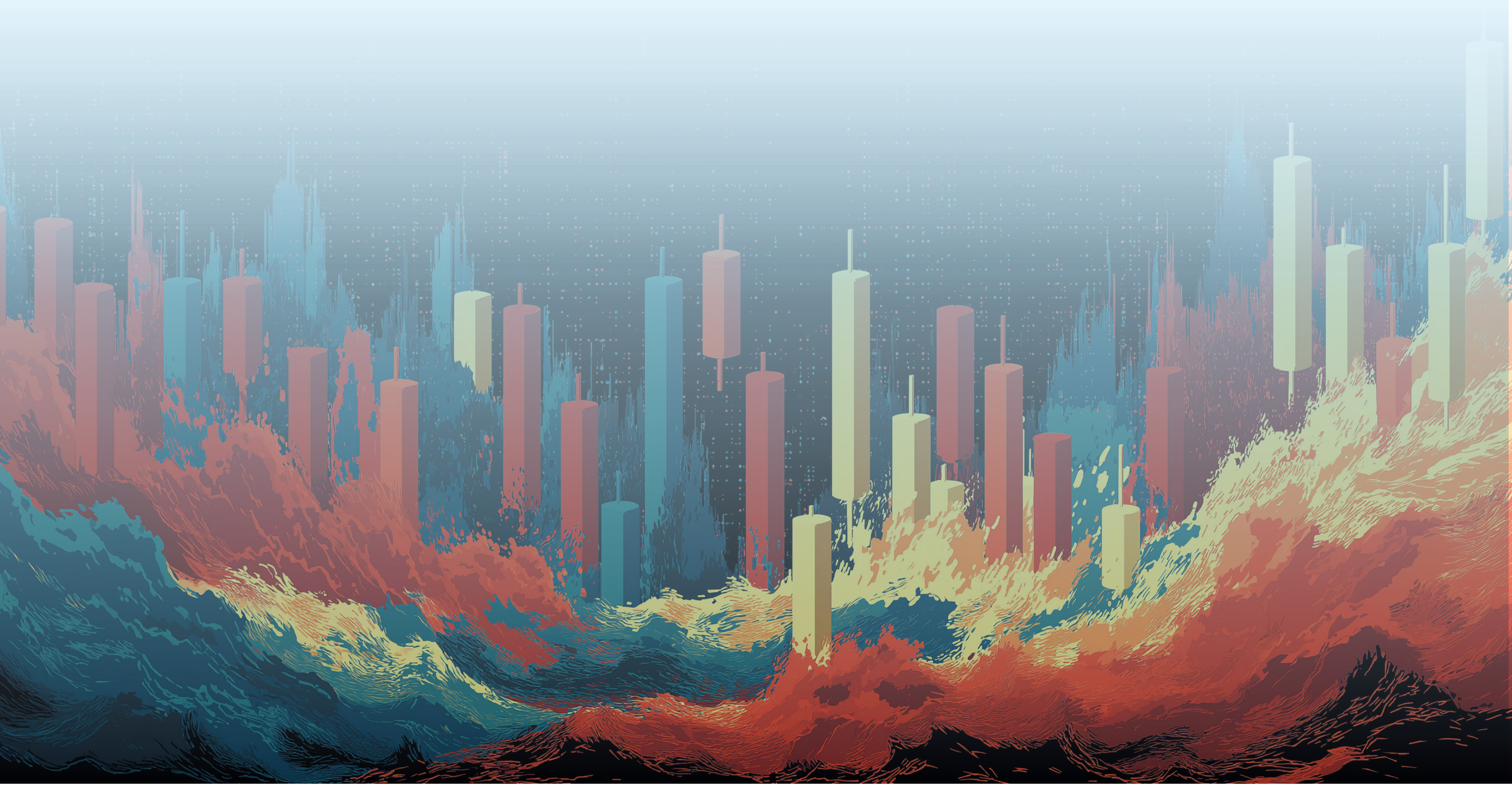
2. The current investing landscape

U.S. endowments manage donations and other funds to provide a stable source of income to the university for costs including research funding, scholarships, or university upkeep. These donations are intended to benefit both current and future generations attending the educational institutions, which means that only a fraction of the funding can be spent each year. Endowments are maintained in perpetuity, allowing them the luxury to "sit on their money" and to "invest for the long-term" to generate the highest returns.

Long-term investing has afforded endowments the ability to comfortably invest in private markets. This model of investing – commonly referred to as Swensen's Yale Model – involves a significant shift from traditional stock and bond investments to private markets, which benefit from their exposure to high-risk, high-return equity, and illiquidity that generates greater expected returns.

Each year, U.S. endowments pay out around 4%-5.5% of their asset value to their university. Looking at Harvard as an example, over the last 10 years the endowment has paid out between 4.2%-5.3% of its assets into the University. These payout rates indicate that universities need to seek high returns to maintain long-term sustainability and viability of their endowments. Additionally, the payout rates have, over the years, driven endowments to heavily invest in private markets.

The top 10 U.S. endowments hold 72% of their investments in illiquid assets, with roughly 36% of total investments sitting in private equity. Comparatively, only 20% of their total investments sit in public equity.



3. What policies are impacting endowment stability?

Over the last few months, the U.S. administration has proposed and enacted policies that can change the existing status quo of endowment investing. While the policies have created short-term liquidity concerns, we expect there to be long-term structural effects. We assume the suggested policy and regulatory changes will require endowments to support their universities on a more frequent basis, which will require endowments to have 1) more liquidity and 2) higher payout rates.

There are three primary policies and initiatives which pose significant impacts to the liquidity and payout circumstances of endowments: the loss of research funding, the change in tax status, and the loss of revenue from international students.

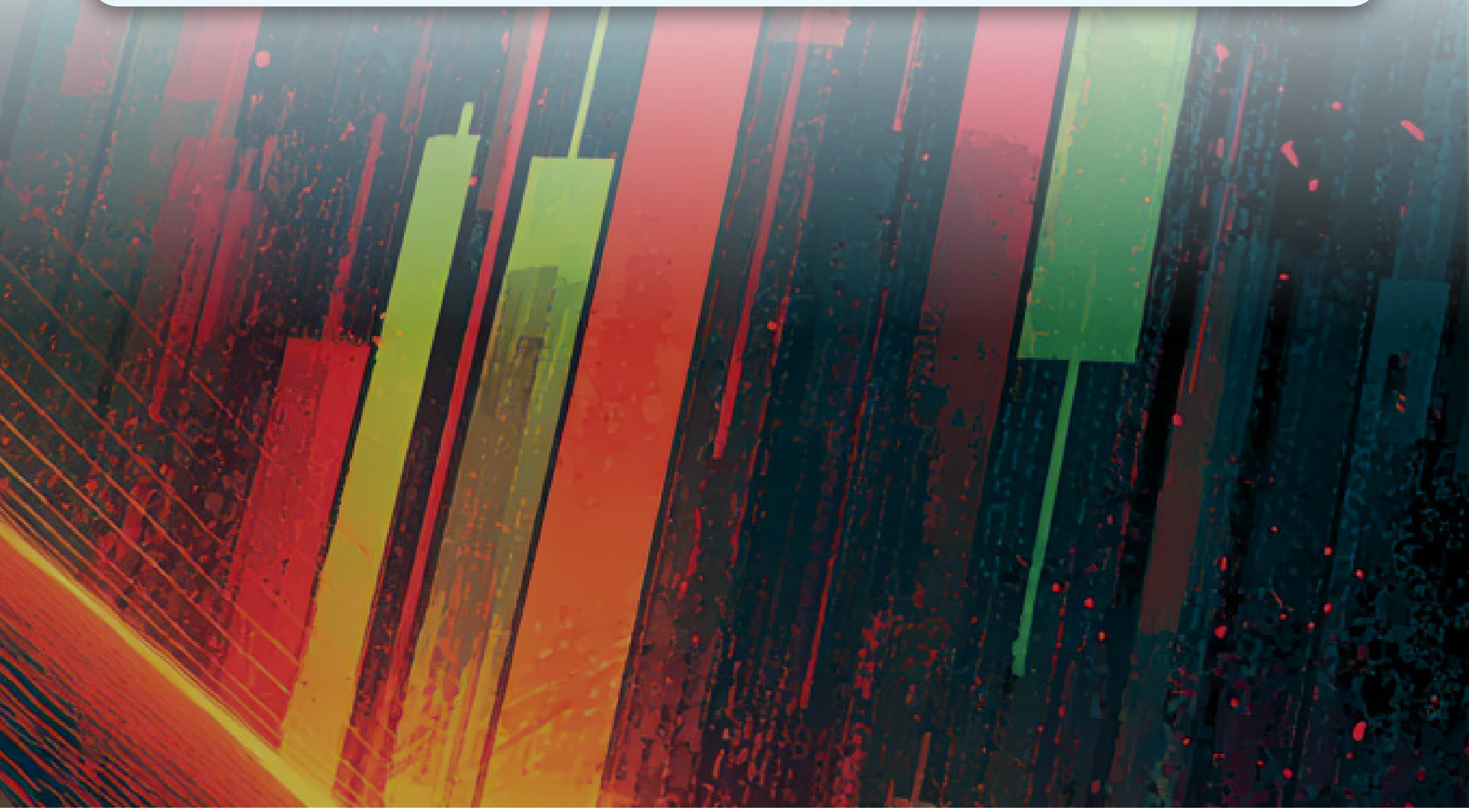
1) Frozen federal funds and research funding cuts: A total of $9 billion has been put under review by the federal government, including $256 million in research support for Harvard, and $8.7 billion in future commitments to the University and several renowned hospitals. The U.S. administration also paused $2.2 billion in multi-year grants, $60 million in multi-year contracts and announced that it would no longer award grants to Harvard. In fiscal year 2024, Harvard received $686 million from federal agencies, accounting for two-thirds of its total sponsored research expenditure and 11% of the University's operating revenue.

2) Loss of tax-exempt status and higher endowment taxes: In 2017, the Tax Cuts and Jobs Act (TCJA) introduced a 1.4% excise tax on endowment profits of private colleges and universities that enroll at least 500 students and have endowment assets exceeding $500,000 per full-time student. As of July 1, 2025, the endowment tax rate increased from 1.4% to as high as 8% for the wealthiest private colleges and universities. In 2024, Harvard paid $44 million in taxes under the 1.4% tax rate. If we assume a linear increase under the 8% tax rate, Harvard would pay $250 million under their 2024 returns.

Moreover, most public and private universities and colleges are defined as tax-exempt entities by the Internal Revenue Service (IRS). This means that universities do not have to pay local and state taxes as well as taxes on the growth of their endowments, and donors receive tax deductions when donating to schools. If the IRS decided to change Harvard's tax-exempt status, this new change could affect both the earnings from the endowment investments and the flow of initial capital that comes from donations. In 2024, gifts for current uses from alumni, foundations and other donors totaled $528 million. These donations could be directly affected by the loss of tax-exempt status.

3) Loss of revenue from international students. The U.S. administration has made proposals to restrict international students' enrollment in U.S. universities and has created an uncertain environment for international students currently studying in the U.S. The administration has also implemented sweeping and highly targeted restrictions affecting student visas, including a separate order banning new international students and scholars of Harvard with F, M and J visas, even taking legal steps to ban international student visas in some cases. These actions have led Harvard to sue the U.S. administration. News reports in the U.S. and abroad have fueled concern that international students could be detained or deported over visa issues, compounding the problem as existing and potential international students worry about the risk of studying in the U.S. in general and at Harvard specifically.

No matter how the legal repercussions unfold, the sentiment that international students are not welcome to study in the U.S. has likely already left a mark on Harvard's international student enrollment. For the academic year of 2024 through 2025, approximately 7000 students – 27% of Harvard's total enrollment – were international students. These students bring in an estimated annual revenue of $1.4 billion in tuition and fees, housing, and meals.



4. Exploring limited and full policy paths for Harvard

The changes in the regulatory environment and federal funds have the potential to harm the financial sustainability of endowments, through their impact on investing strategy, costs, and payouts. We explore two potential scenarios that allow us to assess the effects of the changes on the Harvard endowment in the long-term. For context, we compare these two scenarios to the 2024 policy environment. We focus on modeling the initial asset value (which is affected by private equity sell-offs), the long-term investment strategy, and we model all cost shocks into the annual payout rate of the endowment. We do not model any donations or changes to donations.

	2024 Policy	Limited Policy Scenario	Full Policy Scenario
Initial Asset Value	$53.2 B	$53.0 B due to $1B fire sale on Private Equity for 80 cents to the dollar	$53.0 B due to $1B fire sale on Private Equity for 80 cents to the dollar
Investment Strategy	Consistent with 2024 strategy Roughly 80/20 split between illiquid and liquid assets	Increased need for liquidity Roughly 60/40 split between illiquid and liquid assets	Significant increased need for liquidity Roughly 50/50 split between illiquid and liquid assets
Payout	5.25% payout	*7.3% payout, consisting of:* *5.25% base* *An additional +1.3% to fill research funding cuts* *An additional +0.3% to fill revenue loss of 25% of international students* *An additional +0.5% cost due to tax hike*	*8.1% payout, consisting of:* *5.25% base* *An additional +1.3% to fill research funding cuts* *An additional +1.1% to fill revenue loss of all international students* *An additional +0.5% cost due to tax hike*

The first case serves as a comparison which shows how the endowment would have developed under no policy and regulatory change where the investment strategy and payouts of the Harvard endowment would have remained with their 2024 circumstances. This scenario pins on high allocations into illiquid assets at 80% of total investments – with private equity and hedge funds in particular – which we can assume Harvard feels comfortable with, given high returns on such investments in previous years. We assume a payout rate of 5.25%, the average of the endowment's 5.0% and 5.5% target range.

Our second scenario is the **limited policy scenario** which assumes a limited implementation of the policy and regulatory changes proposed by the U.S. administration. It includes actions taken through June 15th, 2025. This scenario incorporates research funding cuts, private equity fire sales, a tax hike, a shift in the allocation from private to public markets to 60% and 40%, respectively, and a structural loss of some international students due to the sentiment impacts. These changes lead to a payout ratio of 7.3% – all else being equal.

The limited-policy scenario is kickstarted by the short-term federal cuts to research funding. These cuts bring on a liquidity shock which leads Harvard to sell $1B of their private equity investments in a fire sale with a 20% haircut—only receiving 80 cents to the dollar. This fire sale lowers the existing assets under management while also kickstarting a structural change in the university's allocations out of the more illiquid private assets. For the sake of simplicity, we model the change of tax rate by increasing the payout by +0.5%. Moreover, we assume that the funding cuts are a structural change, which the endowment is asked to fulfill, and thus increase the overall payout by +1.3%. The fearmongering around international student visas, we assume, decreases the enrollment of 25% of foreign students and thus causes a loss of revenue which translates to an additional +0.3%. In total, this brings the annual payout rate to 7.3%.

With the renewed fear of a liquidity crisis and increased payout levels, we assume the long-term investment strategy to begin shifting away from such high allocations in private equity and hedge funds, and more into public equity, with some relatively minor increases in cash and bonds for additional liquidity.

The third scenario explores a **full policy scenario** where Harvard loses federal research funding, faces increased taxes, loses its tax-exempt status, and loses the enrollment of all international students. This scenario assumes all three points suggested by the U.S. administration have come to effect and is meant to signal the "worst case" with significant structural changes on Harvard's investment strategy and payout ratio.

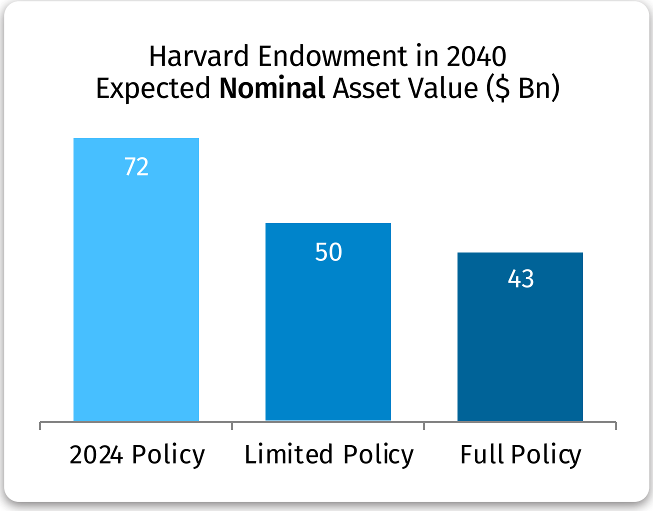
This third scenario is driven largely by the loss of tax-exempt status of the endowment – changing the tax rate from 1.4% to 8% – and the loss of revenue of all international students. We assume the increased payout rate under this scenario requires the endowment to have more liquidity on hand, such that it ends up with only 50% of its investments in private markets and 50% in public. We assume Harvard's allocations in private equity and hedge funds decline and their allocations in public equity and cash increase. Moreover, in this scenario, the loss of federal funding is consistent with our second scenario with limited policy action, or +1.3% on the payout. For the sake of simplicity, we model the change of tax status by increasing the payout by +0.5%. The loss of all international students leads to an additional +1.1% in the payout to support the loss in revenue. This brings the overall annual payout to 8.1% of assets under management.

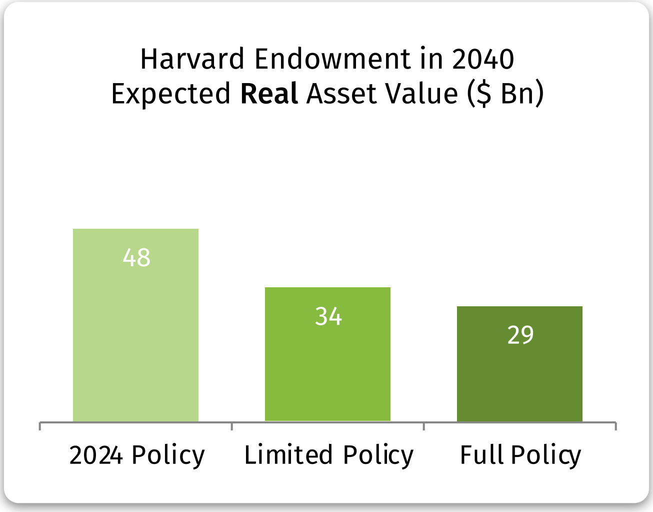
5. What could happen to an endowment's assets under management?

Using scenario analysis provided by the Economic Scenario Generator in the Ortec Finance software GLASS, we can view the expected[1] asset value of Harvard's endowment in 2040 – 15 years from now.

If we look at the long-term asset value of Harvard's endowment, we see that the **full policy scenario** leads the endowment to decline in nominal asset value over time from a start of $53 billion to $43 billion in 2040, due to the substantially high payout rate. At a rate of 8.1%, Harvard's endowment would need to reach at least the same rate in returns – not including inflation – to sustain its current value in nominal terms. A consistent (annualized) return of 8.1% over a 15-year period seems challenging to achieve under most economic scenarios. This is further hampered by strong liquidity needs (the high payout rate), which limits investing in private equity.

When accounted for inflation, we see the expected real asset value in the **limited policy scenario** and **full policy scenario** decline from their $53 start to $34 billion and $29 billion respectively. In other words, in both these scenarios the purchasing power of the Harvard endowment is steadily being exhausted, all else being equal.





Given the increased payout rates and lower private equity investments, we see both the **limited policy scenario** and **full policy scenario** leave lasting impacts on the viability of Harvard's endowment with the size of the endowment declining roughly 30% and 40%, respectively, compared to a scenario with no policy and regulatory change.

[1] Defined as the average value of 2000 simulated economic pathways.

6. Can endowments sustain the existing model?

The existing and proposed changes in research funding, tax policy, and status of international students for universities and endowments have led to higher payout rates. Arguably, endowments no longer have the luxury to comfortably sit on such high allocations into private investments for the long run.

The endowments now face a two-sided front of needing to prioritize both liquidity and return. On one hand, endowments need liquidity to pay out larger support to the universities on a yearly basis. On the other hand, the endowments will also need to prioritize higher returns to meet higher payout rates. As we see in our full policy scenario, this new landscape may not be sustainable for endowments. So, what can be done?

There is no hard and fast path to manage the unfolding scenarios. In summarizing our Harvard case study, the endowment could pull a few levers, such as cost cutting (reducing payout), offensive yet liquid investing strategies, implementing leveraged solutions, and even testifying against the regulatory changes. However, these are big decisions, not without major risks or downsides.

This is where scenario analysis can help to manage the complexity of policy and investment decision-making. For all U.S. endowments trying to navigate what the new policy and regulatory changes could mean, scenario analysis and stress testing provide the means to become better prepared, no matter what scenario ultimately comes into effect. Moreover, scenario analysis is useful in answering important decision-making questions. Could your endowment withstand a structural increase in the payout rate? What is the risk of a liquidity shock? What is the optimal and appropriate investment strategy? Thinking through different scenarios can best equip endowments to manage the uncertain policy and regulatory landscape.

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