BUCKNELL UNIVERSITY

Fall 2019

ENDOWMENT REPORT

UNIVERSITAS BUCNELLENSIS

Bucknell
UNIVERSITY

OFFICE OF THE PRESIDENT
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Dear Bucknellians,

As we look back upon the 2019 fiscal year, we can celebrate several remarkable accomplishments. We put the finishing touches on Academic East, a state-of-the-art facility for the College of Engineering and the Department of Education, which opened in August. At the same time, we broke ground on another interdisciplinary building — a new home for the Freeman College of Management and the Department of Art & Art History. In keeping with Bucknell's commitment to sustainability, both are expected to earn LEED Gold Certification.

Other achievements, while not as visible, carry even greater significance. In April, after two years of collaboration among faculty, staff and students, the University adopted its first new strategic plan in 13 years, the Plan for Bucknell 2025. This document outlines the commitments we are making to ensure the University thrives well into the future. Our efforts now move into an exciting new phase of work that will draw upon the talents and input of the whole Bucknell community.

Setting and achieving institutional goals depends on the continued strength of the University endowment, which stood at $867 million as of June 30, 2019, and represents a slight increase from a year ago. The newly adopted Strategic Plan sets bold goals that will sustain Bucknell's ability to educate future generations, many of which require significant financial investment. For example, in order to succeed in the increasingly competitive market to enroll the best students, we have committed to increasing need-based aid — a commitment that entails launching a new comprehensive campaign that will also support other strategic priorities.

I thank you for your support of Bucknell, which allows us to continue providing the best possible education and opportunities for our students. It is inspiring to know that as the stewards currently entrusted with the University's long-term prosperity, we are part of a lasting tradition that truly changes lives. With the continued generosity of our alumni, parents and friends, the University will guide students to personal and professional success long after our time on campus.

I also wish to thank our investment team, advised by the Board of Trustees, who are dedicated stewards of University resources. With their direction, we will continue on a path of sound investment balanced by prudent risk — an approach that has served this institution well, and that will ensure the best possible use of resources as together we work to lead Bucknell to even higher levels.

Thank you again for your loyalty and dedication to Bucknell.

Sincerely,

John

John C. Bravman
President

Endowment Activity

Bucknell University's total endowment market value as of June 30, 2019, was $867 million, a $15 million increase in market value from a year ago. The increase consisted of a $39 million net investment gain as well as $21 million in gifts and other additions to the endowment, which were offset by $44 million in disbursements to support the University. Over the past 10 years, the endowment value has grown from a beginning amount of $443 million on July 1, 2009, through $505 million in investment gains and $278 million in gifts and other additions, less $359 million in disbursements to the University.

ENDOWMENT ACTIVITY

as of June 30, 2019

$, IN MILLIONS	1-YEAR	3-YEAR	5-YEAR	10-YEAR
Beginning Market Value	**$851**	**$722**	**$751**	**$443**
Gifts and Other Additions	$21	$63	$138	$278
Disbursements to University	$(44)	$(129)	$(208)	$(359)
Investment Return	$39	$211	$186	$505
Ending Market Value	**$867**	**$867**	**$867**	**$867**
Net Change in Market Value	$15	$144	$116	$424

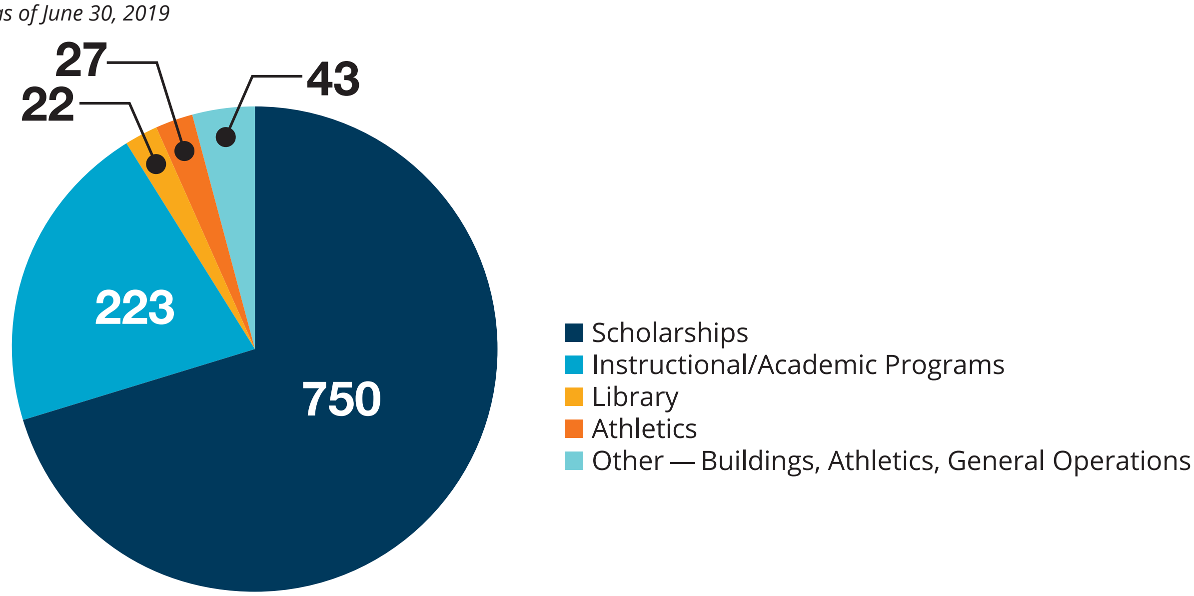
Note: Columns may not sum due to rounding

Endowment

The endowment fund employs a unitized structure, similar to a mutual fund, where new endowment contributions purchase units in a pool. As of June 30, 2019, there were 1,065 separate donor-endowed funds in place at the University. Student scholarships make up the largest number of these underlying endowments, but individual endowments support all aspects of the University's mission. We are honored to report that 22 new endowments were established during fiscal year 2019. These gifts are a critical component in providing students with the best Bucknell experience possible, and we continue to be humbled by the overwhelming generosity of the Bucknell community.

NUMBER OF ENDOWMENTS: CATEGORIZATION BY FUNCTION

as of June 30, 2019



Asset Allocation

The asset allocation of the endowment is structured to achieve a maximum rate of return given a level of expected investment risk that is deemed prudent within the context of the University's mission. The endowment's asset mix is designed to balance three main objectives:

- To maintain sufficient near-term liquidity in order to provide quarterly disbursements to support the University.
- To minimize the likelihood of a potential decline of the endowment that may permanently impair the University's mission.
- To generate a return that allows the endowment to grow in excess of disbursements made to support the University and the eroding impact of inflation (higher costs for goods and services).

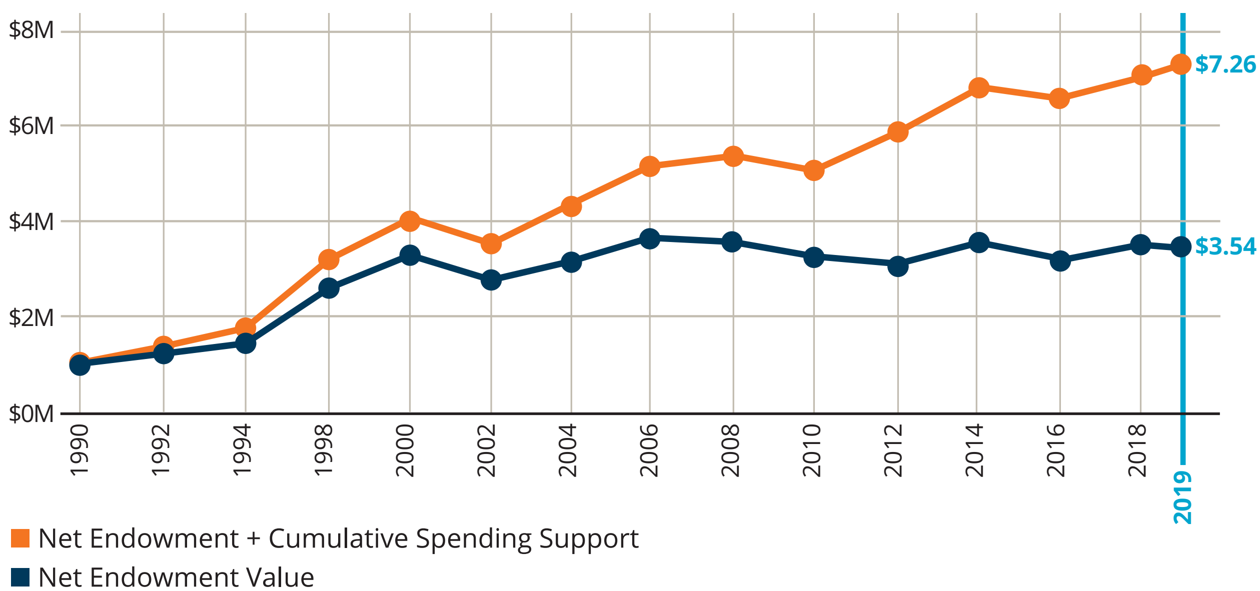
Thus, in developing our asset allocation, we must balance our long-term return objective with the immediate requirement to provide ongoing support to the University. These contrasting time horizons together comprise a key concept in endowment management known as ***intergenerational equity***: the objective of providing the same level of support to current and future generations of Bucknell constituents into perpetuity when adjusting for inflation.

As a hypothetical example:

- An endowment gift of $1 million established on July 1, 1990, and invested in the pooled endowment fund would have generated approximately $6.26 million in total investment gains over the past 29 years[1].
- Over the same 29 years, the gift would have distributed more than $3.73 million in spendable income to the University to support the scholarship, department or program to which it was designated.
- Thus, the net market value of the gift on June 30, 2019, would have grown to approximately $3.54 million.
- Importantly, the annual support to the University from the gift would have grown as well, from approximately $42,000 in academic year 1991 to $185,000 today.

HYPOTHETICAL GROWTH & CUMULATIVE SUPPORT OF $1 MILLION GIFT (IN MILLIONS)

as of June 30, 2019



[1]We have chosen to use 1990 as the starting point for this hypothetical analysis based on the availability of detailed endowment market value and spending per unit within the pooled endowment.

Investments held within the endowment are classified into four broad asset types based on their anticipated contribution to the portfolio when considering their expected risk, return and correlation:

- **Growth Assets** are, as their name implies, intended to be the portfolio's primary engine of long-term capital appreciation, but these investments may exhibit significant short- and intermediate-term volatility. This group consists mainly of U.S. and non-U.S. public equities as well as private equity investments.

- **Hybrid Assets** should produce returns that are differentiated relative to our growth assets which improves overall portfolio diversification and lowers expected endowment volatility. These investments are expected to protect capital in declining markets relative to growth assets, and in some cases they may also pay significant periodic interest payments to the endowment which improves our overall portfolio liquidity and provides an important tool during periods of market or economic stress. Hybrid investments consist of hedged/opportunistic strategies, higher-yielding public credit investments and private debt origination strategies.

- **Real Estate** is expected to produce current income and capital appreciation. The real estate portfolio may be invested in both public real estate investment trusts (REITs) as well as private real estate strategies that are diversified by geography and property type.

- **Low-Volatility Assets** should produce modest returns in most environments and provide stability for the endowment. These investments consist mainly of cash and high-quality fixed income. This component of the portfolio represents a source of liquidity and current income to fund the disbursements that provide ongoing support to the University.

The Investments Committee of the University's Board of Trustees, in close consultation with the Investment Office and external advisers, establishes the long-term strategic asset allocation of the endowment. This broad mix of asset types is meant to achieve the University's long-term return objective while simultaneously adhering to its tolerance for investment risk and volatility. Given that our very long-term return goals, risk constraints, and expected market returns do not change often, broad portfolio changes are infrequent. However, within each of these asset classes, we are constantly evaluating and pursuing new investment opportunities that we believe will provide the best risk-adjusted returns to the University.

ASSET ALLOCATION

as of June 30

	Current Portfolio (June 2019)	Asset Allocation (June 2018)
GROWTH ASSETS	**65%**	**65%**
US Equities	*23%*	*25%*
Non-US Equities	*20%*	*18%*
Private Capital	*22%*	*22%*
HYBRID ASSETS	**18%**	**19%**
REAL ESTATE	**4%**	**3%**
LOW-VOLATILITY ASSETS	**13%**	**13%**
	100%	**100%**

Overall Performance

Over the one-, three-, five-, and 10- year periods that ended June 30, 2019, Bucknell's pooled endowment fund generated annualized returns of 4.6, 9.3, 4.7 and 8.2%, respectively. When appraising our investment success, we review the portfolio's results across three primary dimensions:

Absolute return

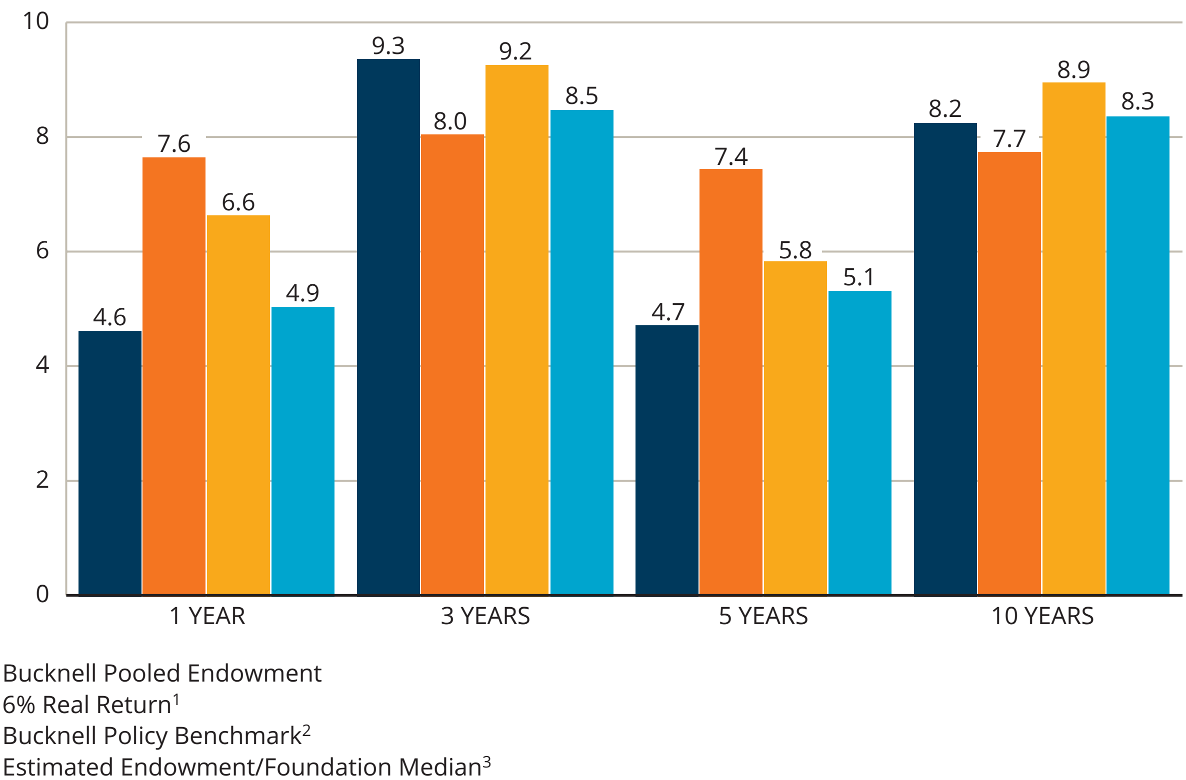
Preserving intergenerational equity (maintaining purchasing power relative to inflation and ongoing spending support to the University), is our primary objective, and it is typically measured over rolling 10-year periods in order to approximate a full economic cycle. We seek a 6% real return net of the Consumer Price Index.

Policy benchmark

The policy benchmark represents the approximate target asset mix of our portfolio across equities, fixed income and other assets such as real estate and credit. This benchmark is primarily comprised of public securities and may be viewed as a baseline to assess value added from various elements of the investment process, such as investment manager selection, rebalancing and layering on additional risks such as the illiquidity of private investments.

Peer institutions

Comparing Bucknell to a list of institutions with similar goals and constraints can provide insight into the relative competitive position of the University with respect to our ability to provide financial aid and other forms of budgetary support.



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[1] *The 6% Real Return benchmark is calculated as 6% plus the gain in the Consumer Price IN.*

[2] *Blended benchmark based on the strategic asset allocation of the endowment. Consists of 64% MSCI ACWI, 18% US T-Bills +4%, 10% FTSE EPRA/NAREIT Developed, 8% Barclay's Aggregate Bond Index.*

[3] *2019 return based on preliminary results collected from multiple consulting firms. Previous fiscal year returns based on the annual median return as published by NACUBO in their annual Study of Endowments*

- The endowment fund nominal return of 4.6% over the trailing year was below our target absolute real return of 6% (real returns are those measured after the purchasing power eroding impact of inflation). All four asset groups in our portfolio were positive during the year, with growth assets returning 5%, hybrid assets returning 4.5%, real estate returning 9.9% and low-volatility assets returning 3.8%. Our portfolio underweights to real estate as well as fixed income duration (interest rate sensitivity) within the low-volatility portfolio held back returns relative to our policy benchmark.

- The long-term investment objective of the endowment fund is to generate a real return that will allow for growth in excess of the disbursements transferred to the University that support financial aid and other key programs. Over the preceding 10 years, which began just following the global financial crisis, the endowment fund return of 8.2% exceeded the real return objective of 7.7%. Bucknell's endowment return over the past 10 years is slightly behind the estimated median return of other college and university endowments of 8.3%[1] as well as our policy benchmark return of 8.9%[2].

PERFORMANCE BY ASSET CLASS

Publicly-traded risk assets broadly produced mid-single digit returns during fiscal year 2019, with U.S. bonds outperforming global equities.

	ALLOCATION	1 YEAR	3 YEARS	5 YEARS	10 YEARS
Growth Assets	**65%**	**5.0%**	**11.5%**	**5.2%**	**9.4%**
MSCI All-Country World Index		*5.7%*	*11.6%*	*6.2%*	*10.1%*
Global Public Equity	43%	4.7%	12.6%	4.6%	9.6%
Global Private Equity	22%	5.6%	9.8%	6.3%	9.2%
Hybrid Assets	**18%**	**4.5%**	**6.5%**	**4.8%**	**6.8%**
3-Month T-Bills + 4%		*6.7%*	*5.7%*	*5.1%*	*4.7%*
Hedged / Opportunistic	9%	1.5%	5.2%	3.9%	5.7%
Public Credit	5%	7.7%	5.8%	4.2%	10.0%
Private Credit	4%	8.3%	11.3%	11.0%	
Real Estate	**4%**	**9.9%**	**20.3%**	**14.4%**	**13.9%**
FTSE EPRA/NAREIT Global Index		*8.6%*	*5.5%*	*5.8%*	*11.5%*
Low-Volatility Assets	**13%**	**3.8%**	**2.2%**	**1.2%**	**4.0%**
Bloomberg Barclays U.S. Aggregate Bond Index		*7.9%*	*2.3%*	*2.9%*	*3.9%*
Total Portfolio	**100%**	**4.6%**	**9.3%**	**4.7%**	**8.2%**
Bucknell Policy Benchmark[1]		*6.6%*	*9.2%*	*5.8%*	*8.9%*

The **growth portfolio**, which represents approximately two-thirds of the total endowment, provided positive returns over the past fiscal year. Our public equity portfolio returned 4.7% compared to 5.7% for the global equity benchmark. Our investments in emerging market equities were the primary detractor of overall performance in the past fiscal year. The public equity portfolio is positioned relatively similar to that of the MSCI All-Country World Index with respect to regional and sector allocations, and is comprised of approximately a dozen managed strategies with specific mandates, such as U.S. small cap equity. When constructing this portfolio, we seek managed strategies with unique and definable competitive advantages in order to produce excess returns with limited correlation across these strategies. Recently, we have initiated a dedicated project to review potential long-term secular investment themes, such as tech-enabled disruption and sustainability that we expect to materialize into actionable investments in our public equity portfolio. We hope to share outcomes of these projects in future endowment reports. The private capital portfolio consists of private equity, venture capital and private natural resource investments. These private portfolios have returned 5.6% over the last fiscal year and 9.2% per year over the last ten years. Our investments in private capital are diversified across geographies and industry sectors and include companies ranging from renewable energy development to strategies focused on novel healthcare innovations. Over the 10-year period the venture capital portfolio has been a particular

[1] Blended benchmark based on the strategic asset allocation of the endowment. Consists of 64% MSCI ACWI, 18% US T-Bills +4%, 10% FTSE EPRA/NAREIT Developed, 8% Barclay's Aggregate Bond Index.

source of growth to the overall portfolio returning 23.7% while the private natural resources portfolio has been a laggard with an overall return of only 4.8%.

The **hybrid portfolio**, which represents approximately 20% of the endowment fund, returned 4.5% during the fiscal year and 6.8% over the past 10 years. Comparatively, the hybrid portfolio's benchmark of U.S. Treasury bills plus 4% returned 6.7% and 4.7% over the past one and 10 years. Hedged/opportunistic strategies returned just 1.5% during the fiscal year (beating the HFRI Hedge Fund-of-Funds Composite index modestly) and 5.7% over the past 10 years (the hedge fund benchmark returned 3.2%). While the hedged/opportunistic strategies fell short of the Treasury Bills plus 4% benchmark during the past year, we remain confident in the diversifying and risk-mitigating role that they play in the endowment portfolio.

Public and private credit returned 7.7% and 8.3% over the past fiscal year. We continue to identify unique strategies in private credit that have definable competitive advantages and offer compelling risk-adjusted return prospects when compared with other asset classes in our portfolio. As such, we have been increasing our exposure to private credit over the past several years, and we've been encouraged by the results thus far. In addition to the Treasury Bills plus 4% benchmark for the hybrid assets portfolio, the credit portfolios are also benchmarked against the S&P/LSTA Leveraged Loan Index, which returned 3.9% over the past year. Our public credit portfolio is concentrated in a flexible bond strategy and an emerging market debt strategy which returned 6.9% and 10% during the last fiscal year. The public credit portfolio has contributed 10% annualized returns over the past 10 years.

Real estate represents approximately 5% of the endowment fund and returned 9.9% over the past fiscal year and 13.9% over the last 10 years. Comparatively, the global public real estate benchmark returned 8.6% and 11.5%, respectively. Our goal is to increase real estate to 10% of the endowment fund, and we have been working diligently to uncover opportunities. We believe much of our past success in real estate investing lies in our ability and willingness to be targeted, thematic and less benchmark-constrained in this asset class. For example, over the past five years we have made successful investments in logistics/e-commerce, European hotels and data centers.

The **low-volatility portfolio**, which represents approximately 10% of the endowment fund, returned 3.8% over the past fiscal year and 4% over the last 10 years. The path of interest rates and central bank policy has been a key focus for investors over the last year. Concerns of a potential global economic slowdown have led central bankers to reduce borrowing rates and bond investors to bid up high quality government debt, sending U.S. Treasury yields sharply lower and causing more than $15 trillion of global sovereign debt to trade with a negative interest rate. In this environment, the portfolio's benchmark, the Bloomberg Barclays U.S. Aggregate Bond Index, earned 7.9% over the past year. Our portfolio did meaningfully underperform the benchmark over the past year primarily due to underweight to interest rate risk. We feel that the current low rate environment does not sufficiently compensate investors for the risk of accepting greater interest rate sensitivity, however that position hurt relative returns in the past year. Over the longer 10 year period, the 4% return of the low-volatility portfolio has slightly exceeded the return of the Bloomberg Barclays Aggregate Bond index.

Outlook

Our current economic expansion is now the longest in U.S. history, and that statistic naturally leads investors to question when it might end. This question, in addition to concerns over slowing global growth, trade wars and Federal Reserve policy have led to heightened volatility over the last year. From October through December of calendar year 2018, investors were concerned that corporate earnings growth was slowing and that the Fed would move short-term borrowing rates too high and choke off economic growth potential. This led to a sharp decline during the quarter. As we began 2019, U.S. economic data continued to show signs of stability and the Fed began expressing a more accommodative tone toward interest rate policy. Markets have rallied in calendar year 2019, with the S&P 500 up nearly 21% through the end of September.

Today, U.S. economic growth remains stable, but leading economic indicators are showing signs of moderation or potential decline. We can see a similar story in public U.S. stocks, where prices paid for earnings are modestly above average at the same time that margin pressures are squeezing profitability and leading to slowing or declining earnings growth. The U.S. economy and public equity markets appear less resilient to a market shock (like a trade war escalation), and the risks of external shocks or a natural slowdown appear to have increased during the last year. While we are not necessarily calling for a recession in the near future, we do believe that a cautious approach is prudent today.

The endowment portfolio's asset allocation is roughly in line with our long-term targets, reflecting our neutral view toward risk-taking today. In concert with our finance colleagues and the Investments Committee of the Board of Trustees, we have spent significant time examining our portfolio risks and liquidity over the past few years in preparation for a potential economic downturn. We also continue to be encouraged by the innovation that is happening across the companies and investments in our portfolio, and we believe the next decade will provide the opportunity to invest alongside significant secular change impacting broad areas of the global economy.

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