HARVARD
UNIVERSITY

Financial Report

FISCAL YEAR 2020

Message from the President

I am pleased to submit Harvard University's financial results for fiscal year 2020.

The end of fiscal year 2020 ushered in the beginning of a pandemic that has changed our world in profound ways. The rapid spread of the virus in the greater Boston area in late February and early March demanded swift adaptation across the University, including an unprecedented shift to remote learning and working for the balance of the spring semester. As Massachusetts moved forward with a phased reopening of the state, Harvard allocated resources to reopen science laboratory facilities in the early summer. At the same time, careful and continuous assessment of public health indicators and practices informed changes to the fall semester, among them significant investments in virtual learning and aggressive COVID-19 screening protocols and other safety measures. We welcomed a limited number of students to campus in September and continue to prioritize the health and safety of every member of our community as we fulfill our teaching and research mission.

Meanwhile, Harvard scholars and researchers have mobilized to address the pandemic and to push forward critical advances. In just three months, the Massachusetts Consortium on Pathogen Readiness (MassCPR), a multi-institution partnership convened by Harvard Medical School, competitively selected 62 research projects at 15 institutions and provided $16.5 million in funding to spur efforts to prevent and treat COVID-19. The Broad Institute has reimagined its work to provide testing on an extraordinary scale for institutions and organizations across the region. Researchers at Harvard have also helped to reveal racial disparities and deepen our understanding of how the crisis has exacerbated them.

Scholarship outside of the shadow of the pandemic reminds us that the work of repairing the world is as varied as the interests and achievements of our community. We are developing groundbreaking approaches for alleviating global poverty, exploring inequality and injustice in America, identifying the biological roots and molecular changes that give rise to autism-related disorders, and making many more advancements that will enable humanity to confront society's greatest challenges. We also further affirmed our commitment to ensuring that Harvard is accessible to a diverse array of students and scholars. This past year, financial aid and scholarships increased by $31 million to support the development of the next generation of leaders in their fields, and we anticipate greater demand for support in the years ahead given ongoing economic uncertainty.

Strong fiscal management across the Schools and Units has enabled flexibility, but we at Harvard, along with colleagues at other colleges and universities, have tough decisions ahead of us. How we manage declining revenue and rising need for investment in excellence amid new and necessary health protocols will, in part, determine our successors' ability to endure and thrive. Fortunately, the people of Harvard—and alumni and friends around the world—have come together to see the institution through uncertainty for generations.

Lawrence S. Bacow
PRESIDENT

October 22, 2020

Financial Overview

From the Vice President for Finance and the Treasurer

The financial effects on Harvard from the onset of the pandemic in March of this year were significant and sudden. Following the University's early decision to send most students home and move all teaching and research to a remote basis, revenues were immediately impacted. Refunds of room and board charges, the closing of research labs funded by sponsored support, the cancellation of continuing and executive education programs, and the virtual cessation of services such as events and reunions, parking, and rent resulted in a $138 million drop in revenue, 3% less than 2019, with the decline all concentrated in the last three months of the fiscal year. When we think of total "lost revenue," however, the number is closer to $270 million, or 5% less from revenue projections made just prior to the pandemic.

At the bottom line, the University showed a loss for the year of $10 million from operations, compared to last year's operating surplus of $308 million. The sharp year-to-year decline was directly the result of the reduction in revenues, as well as a one-time voluntary early retirement benefit program for eligible staff, and the write-down of select assets. The loss would have been far greater without the implementation of immediate cost control efforts including cuts in discretionary spending, a freeze in new hires and raises, no bonuses or overtime work, voluntary salary cuts by senior leadership, and reduced capital spending.

Despite these losses, Harvard's underlying financial position remains strong. Years of careful stewardship by schools and units had replenished reserves from the losses of the Great Recession of 2008-09 and recent coordinated steps positioned the University and Harvard Management Company (HMC) with ample liquidity (i.e. cash and near-cash investments) and substantial unused committed borrowing capacity. Through a refinancing of existing indebtedness, the University has secured long term, low borrowing rates, and downside budget planning was already in place, the result of the "Recession Playbook," an internal financial planning resource introduced over a year ago. This sound financial management allowed the University to be in a position to cover sudden losses from operations, while also investing in the mission, for example, by granting $645 million in financial aid and scholarships to students, an increase of $31 million or 5%. We thank all of Harvard's financial stewards and budget managers for the hard work over the last ten years in creating financial capacity and flexibility. We will no doubt need to call on it again in coming months.

As we close the books on 2020, a few observations on the unexpected:

- Harvard pivoted with breathtaking speed in March to remote learning. The logistics of helping students safely depart campus and standing up all undergraduate and graduate courses on an on-line basis was exceptional. Administrators, faculty and staff reacted far more like seasoned crisis managers or start-up entrepreneurs than staid guardians of tradition in a nearly 400-year-old institution.

- Guided by the framework articulated in April 2020 by President Larry Bacow, Provost Alan Garber and Executive Vice President Katie Lapp—prioritize the health and safety of the community; do everything possible to maintain the excellence of the mission; and recognize that Harvard is its people—the University turned to planning for the summer and fall. Thanks to this intensive work, Harvard has successfully reopened its research labs, broadened and strengthened its remote learning offerings, established hybrid classrooms, and returned a limited number of students, faculty, and staff to campus with a rigorous testing regimen for everyone living and/or working on campus as well as robust contact tracing practices in coordination with local and state public health authorities.

- It has been an extraordinary exercise in imagination, teamwork, academic and administrative planning, and old-fashioned hard work across Harvard's schools and in central administration. We are grateful to everyone who has been involved in these important efforts.

Unfortunately, we cannot rest. The hardest part likely lies ahead with ongoing challenges related to the pandemic and the related economic upheaval, as well as turmoil in our politics, societal inequities, racial injustice and underlying pressures on higher education. Each of these forces will affect the University in varying degrees and influence our financial outlook for years to come. With respect to FY21, our most recent forecasts indicate that revenues will likely be down a second year in a row, something Harvard has not experienced since the 1930's. At the same time, we have incurred significant new investments and increased spending on COVID-19 testing and tracing, the reconfigurations of laboratories, classrooms and dormitories, the procurement of personal protective equipment, and investments in technology and training for faculty and students for remote and hybrid learning. Testing and tracing costs alone are expected to be in the tens of millions of dollars.

Declining revenues and increasing costs is not a sustainable equation, but it is our near-term reality. Harvard's decentralization, however, provides a key advantage—resources are often managed locally by those most knowledgeable and responsible for academic and other activities. It is a time when each and every member of our community can focus on resource stewardship and assume a vigilant responsibility to ensure that our declining resources continue to be best used to support our primary commitment to teaching and research.

Given the levels of uncertainty, we will need to be as flexible and adroit as possible. The reality is, we simply do not know what is going to unfold, even as we engage in planning for the spring semester. Working with the Corporation Committee on Finance, Harvard has established three overriding financial principles to maintain during the pandemic: to stay 'liquid' (meaning to have sufficient operating cash available), to endeavor to reduce spending in line with declining revenues, and to be on the lookout for investment opportunities that will strengthen the mission for the future. This compass will guide our decision making and the management of resources in the weeks and months to come.

The University is blessed with alumni and other philanthropic supporters who rose to the occasion this past spring, amidst the onset of the pandemic and the stock market collapse, with a record-breaking amount of gifts for current use for the year—more current use dollars received than in any other year in Harvard's history. We thank our loyal donors for this extraordinary support. As we have repeatedly emphasized before, endowment distributions and current giving constitute 46% of annual revenues and enable Harvard's pursuit of academic excellence. We offer a note of caution, however, as many of the donations in the Spring were in the form of early collections on past pledges. Consequently, pledge receivables on the balance sheet are now down 13% from a year ago and they will likely continue to decrease as donors pay pledges from the campaign. In the current environment, with the backdrop of a fragile economy, we should anticipate less philanthropy in the coming year.

The endowment earned a 7.3% return for the year, which is an excellent outcome in the midst of market volatility and places HMC's results for the second year in a row at the higher end of large peer universities. Narv Narvekar, the President of HMC, is the first to say that results should not be measured on a year-to-year basis, but we have confidence that Narv and his able team are making steady progress and demonstrating proficiency in a variety of ways. Please see Narv's letter in this report for further information on the endowment.

Stepping back from Harvard, we have cautioned in these letters in recent years that higher education in the United States is facing increasing pressures across all its traditional sources of revenue. Unfortunately, the pandemic and the economic contraction has exacerbated these issues, and we expect significant difficulty for the sector, with existential issues for some institutions. This looms as one of the many challenges facing our nation due to the pandemic and its consequences. While higher education as we know it will be changed, we hope that it will continue its vital role as the engine of opportunity for students, as well as an ongoing source of new discoveries of knowledge, ideas, and future leaders for a better tomorrow.

In the midst of the current difficulties, we are heartened to watch with appreciation as our faculty, staff, students, and alumni actively contribute to the country and the world in providing epidemiological counsel, leading research on COVID-19 cures, taking legal action on behalf of foreign students, breaking pedagogical new ground in remote and hybrid classrooms, contributing resources and talent to our local communities, and finally, publishing articles, papers and research in every field on the effects of the pandemic, and the possible best paths forward.

In closing, we want to once again thank each and every donor to the University—past and present—for understanding that Harvard's excellence in teaching and research is made possible through philanthropy. We also want to thank faculty and staff for their inspiring contributions, on a daily basis, in carrying on in the midst of this pandemic and making Harvard one of the world's preeminent institutions.

Thomas J. Hollister
VICE PRESIDENT FOR FINANCE

Paul J. Finnegan
TREASURER

October 22, 2020

FINANCIAL OVERVIEW

The University ended fiscal year 2020 with an operating deficit of \$10 million compared to a \$308[1] million surplus in fiscal year 2019. This financial loss was driven by COVID-19 pandemic related declines in revenue, as board and lodging payments were refunded and executive education programs cancelled, while the University continued to fully support salaries and benefits for all workers. At the same time, the University acted quickly to manage discretionary spending in response, reducing those categories of spend by \$155 million. Despite volatile financial markets, the University's net assets increased by \$893 million to \$50.2 billion at June 30, 2020 due to strong performance from Harvard Management Company.

OPERATING REVENUE

In fiscal year 2020, total operating revenue decreased 3% or \$138 million to \$5.4 billion. As a result of the COVID-19 pandemic, Harvard experienced significant revenue declines, including the cancellation of executive education programs, board and lodging refunds, as well as slowdowns in other campus activities including research.

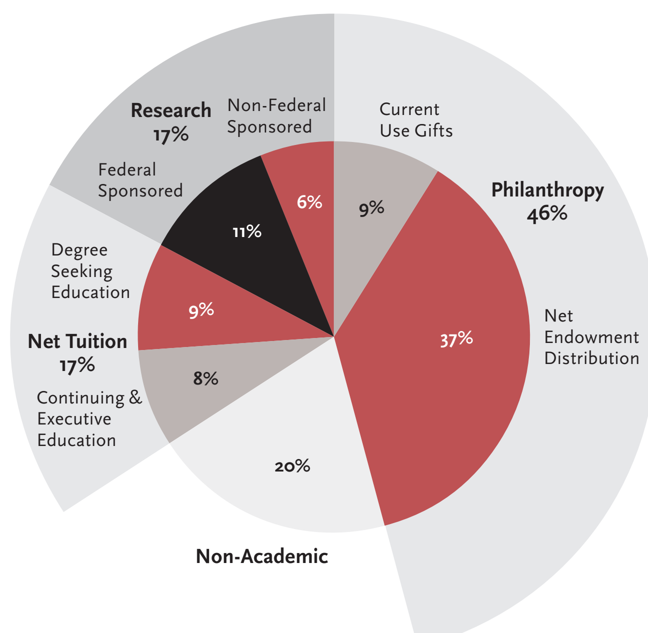
Total student revenue decreased 11% to \$1.1 billion in fiscal year 2020. Modest decreases in net revenue from traditional student programs (undergraduate and graduate) were planned and driven by increases in financial aid. Board and lodging revenue of \$164 million declined 16% mainly driven by \$32 million in refunds issued to students and families for half of the spring semester. Net executive and continuing education totaled \$410 million and was substantially impacted by the COVID-19 pandemic, declining \$90 million or 18% driven by related program cancellations and enrollment declines.

Sponsored support was only modestly impacted by the pandemic, as the University was able to quickly adapt research activity to continue remotely. As a result, revenue from federal and non-federal sponsored sources decreased just 2% to \$918 million. Federal funding, which accounted for approximately 67% of total sponsored revenue in fiscal year 2020, decreased 2% to \$616 million. Non-federal sponsored revenue, attributable to funding from corporations, foundations, and other non-federal sponsors, decreased 2% to \$301 million and includes newly awarded research awards focused on COVID-19.

We are grateful to all donors who have continued to support the University's mission during this unprecedented time, with current use giving continuing at record levels. Current use gifts, received from alumni, foundations and others, totaled \$478 million, representing approximately 9% of operating revenues in fiscal year 2020. Combining gifts for current use and Harvard's endowment distribution, philanthropy accounts for 46% of fiscal year 2020 revenue.

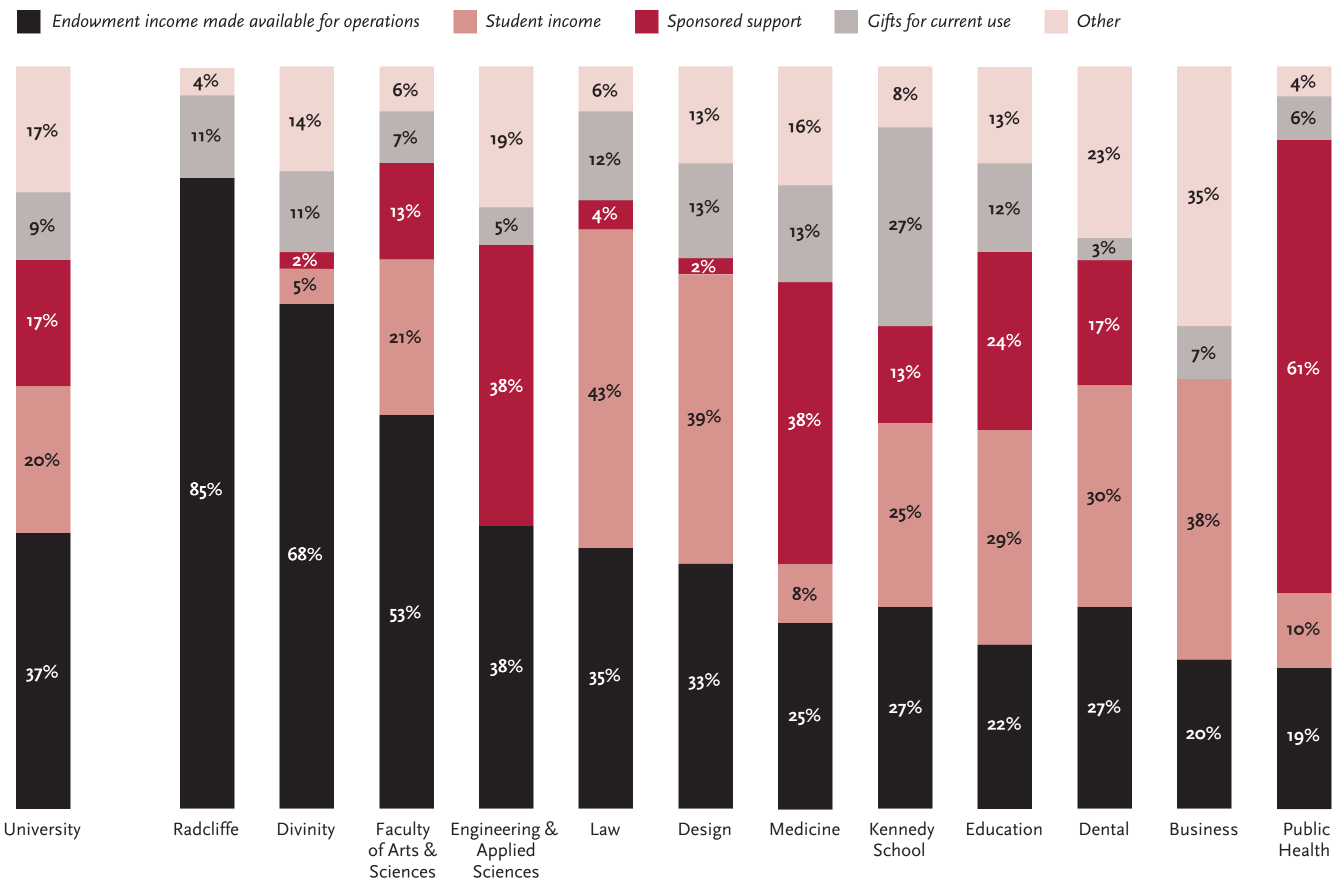
In fiscal year 2020, the endowment distribution increased by 5% to \$2.0 billion. This growth was the combined impact of new gifts, as well as the Corporation-approved distribution rate increase of 2.5%. In the aggregate, Harvard's endowment payout rate (i.e., the dollars withdrawn annually for operations as a percentage of the endowment's prior year-end market value) was 5.2% compared to 5.1% in the prior fiscal year, and in line with the University's targeted payout rate range of 5.0%–5.5%. The University continues to be keenly focused on managing the endowment's payout rate in order to maintain an appropriate balance between supporting the University's near-term programmatic needs and aspirations and safeguarding the endowment's long-term purchasing power.

FISCAL YEAR 2020 UNIVERSITY REVENUE SOURCES



[1] *The 2019 "Net Operating Surplus" has been adjusted by \$9.7 million to conform with current year presentation from the adoption of ASU 2017-07 (see* Note 2*).*

FISCAL YEAR 2020 SOURCES OF OPERATING REVENUE

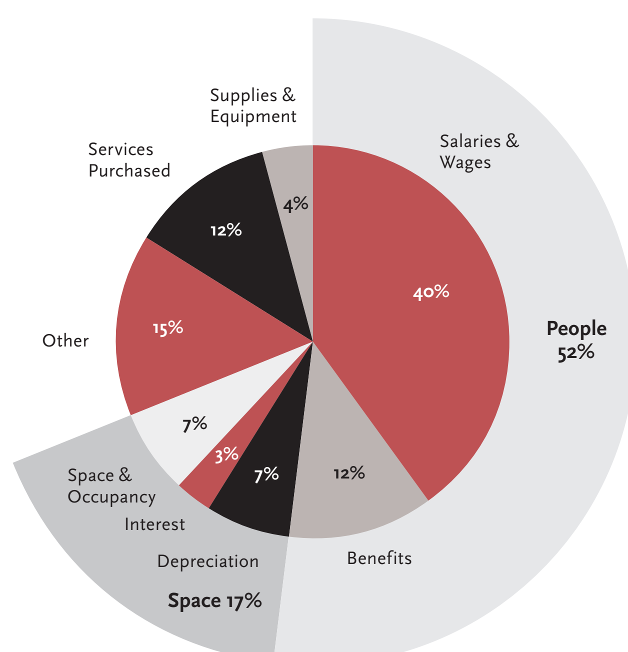


OPERATING EXPENSES

The University's operating expenses increased by $180 million or 3%, to $5.4 billion as of June 30, 2020. Compensation expense (i.e. salaries, wages and benefits) increased $158 million or 6% from the prior fiscal year which is inclusive of a $71 million estimated accrual related to the Voluntary Early Retirement Incentive program offered to 1,599 staff members in June 2020.

Additionally, while total non-compensation related expenses increased year-over-year, fiscal year 2020 includes one-time costs related to asset impairment and environmental remediation. The University acted quickly to manage discretionary spending in response to COVID-related revenue pressures and these efforts resulted in a 6% decrease over prior year for non-compensation related expenses, after removing the impact of one-time charges. For example, travel expenditures—supporting student and faculty research and other programmatic activities—were reduced by $33 million, as world-wide travel shutdown in mid-March.

FISCAL YEAR 2020 OPERATING EXPENSES



BALANCE SHEET

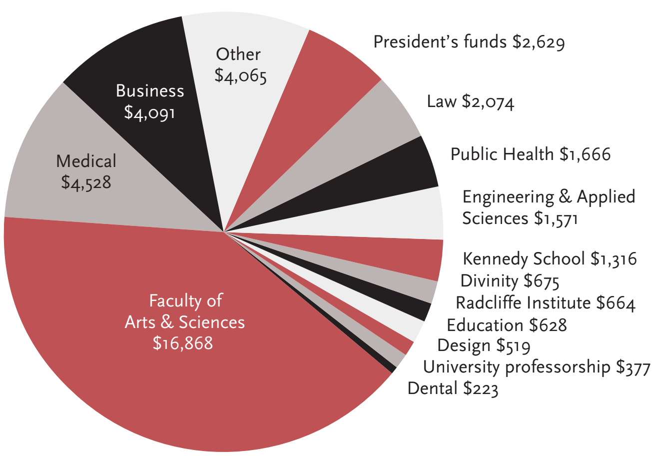
Investments and Endowment

In fiscal year 2020, the return on the endowment was 7.3% and its value (after the net impact of distributions from the endowment for operations, and the addition of new gifts to the endowment during the year) increased from $40.9 billion at the end of fiscal year 2019 to $41.9 billion at the end of fiscal year 2020. More information can be found in the Message from the CEO of Harvard Management Company, found on page 9 of this report.

The University has a policy of maintaining liquidity outside of the General Investment Account (GIA) through a combination of cash, cash equivalents and short-term investments. These investments totaled $1.6 billion at June 30, 2020 compared to $1.0 billion at June 30, 2019 (see *Note 2*).

MARKET VALUE OF THE ENDOWMENT AS OF JUNE 30, 2020

In millions of dollars



TOTAL MARKET VALUE $41,894

Debt

Bonds and notes payable increased from $5.2 billion at June 30, 2019 to $5.7 billion at June 30, 2020, resulting from the April 2020 refinancing of $450 million in tax-exempt commercial paper and issuance of $500 million in taxable debt. The University maintained its AAA rating by S&P Global Ratings and Aaa by Moody's Investor Services.

Fixed assets

The University curtailed spending on capital projects and acquisitions as a result of the COVID-19 pandemic and for fiscal year 2020 it invested $627 million compared to $903 million in fiscal year 2019. Significant capital projects, including the Science and Engineering Complex, were delayed due to pandemic construction shutdowns. Over the past several years, the University has invested in renewal projects across the University that will allow us to prudently manage capital projects during this upcoming period of financial uncertainty.

HARVARD MANAGEMENT COMPANY

Message from the CEO

OCTOBER 2020

Dear Members of the Harvard Community,

For the most recent fiscal year ended June 30, 2020, the return on the Harvard endowment was 7.3% and the value stood at $41.9 billion. The endowment also distributed $2 billion toward the University's operating budget, supporting financial aid, research funds, faculty chairs, and more.

Performance

Asset Class	Allocation	Return
Public Equity	18.9%	12.2%
Private Equity	23.0%	11.6%
Hedge Funds	36.4%	7.9%
Real Estate	7.1%	-0.5%
Natural Resources	2.6%	-6.2%
Bonds/TIPS	5.1%	8.2%
Other Real Assets	1.3%	-17.5%
Cash & Other	5.6%	---
Endowment	**100%**	**7.3%**

Fiscal year 2020 (FY20) was another year in which asset allocation (or risk level) played a major role in returns. Those who took the highest risks, generally speaking, garnered higher returns. Like FY19, it was also a year in which HMC's manager performance served to overcome its lower allocation to certain higher risk assets.

Having completed three full fiscal years of our transition of HMC's organization and portfolio, I am proud of the progress our team has made. To date, we have focused on a number of important efforts, most notably: significant restructuring of the organization, implementing our investment approach across the portfolio, rebuilding the public market side of the portfolio, building on the historically successful parts of the illiquid portfolio, and also dealing with significant illiquid portfolio issues. Additionally, we are in active conversations with the University regarding its risk tolerance to ensure that future investment decisions balance the need for endowment growth with the need for stable endowment revenue.

Portfolio Progress

In public markets, we have progressed more quickly than expected and have already begun running the long-term performance marathon over the last three fiscal years, despite still being in the restructuring period. By contrast, for illiquid markets, the situation is more complex. As previously mentioned, we are building upon a historically strong private equity portfolio, reducing other illiquid exposure, while also removing certain illiquid anchors. Not surprisingly, these changes take much longer and we will use the remaining two fiscal years of the restructuring period to work our way to the starting line.

Public Market Benchmark Relative Performance

In last year's report, I noted that our annualized benchmark outperformance in the public markets portion of the portfolio (public equities and hedge funds, in aggregate), during the two-year period of FY18 and FY19, was in excess of 2.25% annualized. We considered this to be very good, albeit not excellent. More importantly, it represented a positive step for HMC. It is worth noting again that we do not fixate on benchmarks, but they serve a unique role in this circumstance for a few reasons:

- Investments in public markets are ones on which we can have the most immediate performance impact over the three fiscal years of the HMC transition.
- Public investments represent more than half of the endowment portfolio.
- All relevant private market benchmarks are not yet available.

At the end of FY20, HMC's three-year public portfolio annualized outperformance now stands at 4.4%, reflecting excellent performance for that period. This represents another positive step forward for HMC and a strong affirmation of our early progress in effecting the turnaround. Furthermore, this strong manager performance has been critical in helping to offset HMC's lower exposure to venture capital, a high-risk/high-reward investment strategy.

Reducing Illiquid Portfolio Anchors

Last year's report also discussed the many illiquid portfolio anchors weighing down the overall portfolio and its performance. These legacy assets do not have a prospect of generating a return commensurate with the risk and illiquidity they entail and, in some cases, may not provide a return at all. As is evident from the performance chart above, outlining the performance of certain parts of the illiquid portfolio, these assets weighed materially on performance again this past fiscal year. However, the very positive news is that through sales and necessary write-downs we are working our way through these assets and are very pleased that they now represent a considerably smaller percentage of the portfolio — now just in the lower single digits. Our goal is to eventually remove them entirely from the portfolio, as opportunities present themselves, and we believe there is a chance of doing so over the next two fiscal years.

Risk Tolerance

Determining risk tolerance is the fundamental and critical question, yet to be answered. Our goal clearly is to maximize returns at the risk level determined by the University. Close followers of these letters will note that HMC's returns would have been materially higher in FY18, FY19, and FY20 with a higher risk level — in particular, with a higher venture capital allocation — consistent with that of some of our peers. Simply put, it is a tradeoff between higher returns and more long-term growth in the endowment versus having a less volatile University budget. This remains a critical and complex collaboration with the University, one that is well under way and will guide future portfolio construction.

Organizational Progress

Natural Resources (Agricultural) Joint Venture

As we recently announced, HMC spun-out its natural resources team into an independent firm, Solum Partners. We simultaneously sold roughly a 50% interest in a collection of agricultural assets to a third-party investor. Solum will manage this portfolio with both HMC and the third party serving as limited partners. The talented team of asset managers that have formed this new firm will also continue to manage — and ultimately liquidate — certain other HMC natural resource assets.

THERE WERE THREE MOTIVATIONS FOR THESE TRANSACTIONS:

- Continue to right-size our exposure to natural resources
- Retain and even build exposure to specific types of assets and platforms with the appropriate level of risk/return/liquidity for an endowment
- Ensure continued expert management of our natural resources portfolio

Because of the complexity of the assets and the jurisdictions involved, completing this transaction took over two years. We look forward to our continued partnership with the talented team at Solum.

Harvard Management Trusts and Gifts

Historically, the Trusts & Gifts (T&G) group at HMC has worked closely with the University's Planned Giving Program (estates, trusts, non-cash assets, annuities, and donor advised funds) to process, administer, and steward planned gifts and associated donors. We are proud of the T&G team's efforts and accomplishments, but after careful consideration, and in consultation with the University's leadership, we have determined that the structure of T&G needs to evolve in order to best serve and help grow the University's vast planned giving program. To this end, we have decided to outsource the gift administration, tax reporting, and some investment functions to a third-party vendor that will have many more resources and a broader platform with which to serve Harvard's donors. Donors will continue to have the option of investing their remainder trusts in Harvard's endowment.

Throughout and following the transition, HMC and the University will continue to consider the donors' and beneficiaries' interests as a key guiding principle in decision making, and HMC will remain a close advisor on investment strategy. At the same time, both Harvard and HMC also believe that Harvard's donors will be best served if the donor relations and legal structuring teams within T&G are more closely integrated with their counterparts at the University. The transition, both to a third-party vendor and to the University, will be jointly managed by HMC and Harvard over the next 12 months before fully migrating oversight of both efforts to the University. We believe that these changes will present new opportunities to strengthen and expand the planned giving program.

New Strategic Initiatives

Net-Zero Pledge

This past spring, Harvard University made a commitment for its endowment to be net-zero of greenhouse gas (GHG) emissions by 2050. HMC is mindful that we do not make this pledge in isolation. Achieving this goal requires governments to uphold their commitments to the Paris Agreement, the further development of GHG-reducing technologies, and the cooperation of others in the investment management industry. That said, we are not waiting for others to do their part in order to start to prepare ourselves. This decades-long commitment is in its infancy, but HMC has already begun work developing methodologies to assess our portfolio and measure our progress over the course of this significant endeavor.

Diversity and Inclusion

The topics of diversity and inclusion received significant attention this past year and will hopefully remain an issue of industry-wide focus moving forward. While the gender and racial diversity of our external managers is one that HMC has sought to improve in recent years, it is my strong view that diversity and inclusion efforts begin with our own team. We cannot expect more from our managers than we are willing to ask of ourselves. Currently, 55% of HMC's senior staff members, including myself, are either ethnic and racial minorities or women. All high-performing organizations must draw talent from the broadest possible pool and the diversity of our staff is one way to ensure that we meet that standard.

Along with our Board of Directors and members of the Harvard Corporation, we are exploring ways that we can institutionalize these initiatives to ensure that we continue to improve in the years to come.

In Closing

After three full fiscal years of hard work, we are beginning to see the benefits of the ongoing transition. The entire team is committed to maximizing the two remaining fiscal years to position both the organization and the endowment for long-term success. To be sure, there is much left for us to accomplish, but the early signs are encouraging and we remain confident in the direction we are headed.

Best regards,

N.P. "Narv" Narvekar
Chief Executive Officer

pwc

Report of Independent Auditors

To the Joint Committee on Inspection of the Governing Boards of Harvard University:

We have audited the accompanying consolidated financial statements of Harvard University and its subsidiaries (the "University"), which comprise the consolidated balance sheet as of June 30, 2020, and the related consolidated statements of changes in net assets with general operating account detail, changes in net assets of the endowment and of cash flows for the year then ended.

Management's Responsibility for the Consolidated Financial Statements

Management is responsible for the preparation and fair presentation of the consolidated financial statements in accordance with accounting principles generally accepted in the United States of America; this includes the design, implementation and maintenance of internal control relevant to the preparation and fair presentation of consolidated financial statements that are free from material misstatement, whether due to fraud or error.

Auditors' Responsibility

Our responsibility is to express an opinion on the consolidated financial statements based on our audit. We conducted our audit in accordance with auditing standards generally accepted in the United States of America. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the consolidated financial statements are free from material misstatement.

An audit involves performing procedures to obtain audit evidence about the amounts and disclosures in the consolidated financial statements. The procedures selected depend on our judgment, including the assessment of the risks of material misstatement of the consolidated financial statements, whether due to fraud or error. In making those risk assessments, we consider internal control relevant to the University's preparation and fair presentation of the consolidated financial statements in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the University's internal control. Accordingly, we express no such opinion. An audit also includes evaluating the appropriateness of accounting policies used and the reasonableness of significant accounting estimates made by management, as well as evaluating the overall presentation of the consolidated financial statements. We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our audit opinion.

Opinion

In our opinion, the consolidated financial statements referred to above present fairly, in all material respects, the financial position of Harvard University and its subsidiaries as of June 30, 2020 and the changes in their net assets and their cash flows for the year then ended in accordance with accounting principles generally accepted in the United States of America.

Emphasis of Matter

As discussed in Note 2 to the consolidated financial statements, the University changed the manner in which it accounts for restricted cash and certain other cash balances within the statements of cash flows and the manner in which it accounts for leases in 2020. Our opinion is not modified with respect to this matter.

Other Matter

We previously audited the consolidated balance sheet as of June 30, 2019, and the related consolidated statements of changes in net assets with general operating account detail, changes in net assets of the endowment and of cash flows for the year then ended (not presented herein), and in our report dated October 24, 2019, we expressed an unmodified opinion on those consolidated financial statements. In our opinion, the information set forth in the accompanying summarized financial information as of June 30, 2019 and for the year then ended is consistent, in all material respects, with the audited consolidated financial statements from which it has been derived.

October 22, 2020

PricewaterhouseCoopers LLP

PricewaterhouseCoopers LLP, 101 Seaport Boulevard, Suite 500, Boston, MA 02210
T: (617) 530 5000, F: (617) 530 5001, www.pwc.com/us

BALANCE SHEETS

with summarized financial information as of June 30, 2019

In thousands of dollars	June 30 2020	June 30 2019
ASSETS:		
Cash and cash equivalents	**$ 176,615**	$ 158,640
Receivables, net *(Note 4)*	**262,731**	296,321
Prepayments and deferred charges	**304,920**	266,719
Operating leases – right of use assets *(Note 18)*	**754,699**	0
Notes receivable, net *(Note 5)*	**372,234**	373,623
Pledges receivable, net *(Note 6)*	**2,403,175**	2,765,827
Fixed assets, net *(Note 7)*	**8,435,255**	8,271,711
Interests in trusts held by others *(Note 3)*	**427,359**	420,371
Securities pledged to counterparties, at fair value *(Note 3)*	**214,010**	49,971
Investment portfolio, at fair value *(Note 3)*	**48,111,441**	46,723,970
TOTAL ASSETS	**$ 61,462,439**	**$ 59,327,153**
LIABILITIES:		
Accounts payable	**$ 321,666**	$ 398,134
Deferred revenue and other liabilities	**1,580,178**	1,517,022
Operating lease liabilities *(Note 18)*	**767,599**	0
Other liabilities associated with the investment portfolio *(Notes 3 and 10)*	**878,018**	875,141
Liabilities due under split interest agreements *(Note 9)*	**819,584**	859,744
Bonds and notes payable *(Note 10)*	**5,664,679**	5,213,349
Accrued retirement obligations *(Note 11)*	**1,216,251**	1,120,544
Government loan advances *(Note 5)*	**44,748**	66,733
TOTAL LIABILITIES	**11,292,723**	**10,050,667**
NET ASSETS	**50,169,716**	**49,276,486**
TOTAL LIABILITIES AND NET ASSETS	**$ 61,462,439**	**$ 59,327,153**

	Without donor restrictions	With donor restrictions	June 30 2020	June 30 2019
NET ASSETS:				
General Operating Account (GOA) *(Note 8)*	$ 4,922,307	$ 2,754,836	$ 7,677,143	$ 7,773,417
Endowment *(Note 8)*	7,374,810	34,519,570	41,894,380	40,929,700
Split interest agreements *(Note 9)*		598,193	598,193	573,369
TOTAL NET ASSETS	**$ 12,297,117**	**$ 37,872,599**	**$ 50,169,716**	**$ 49,276,486**

The accompanying notes are an integral part of the consolidated financial statements.

STATEMENTS OF CHANGES IN NET ASSETS WITH GENERAL OPERATING ACCOUNT DETAIL

with summarized financial information for the year ended June 30, 2019

In thousands of dollars	Without Donor Restrictions	With Donor Restrictions	For the year ended June 30 2020	2019
OPERATING REVENUE:				
Net student income *(Notes 2 and 12)*	$ 1,070,156		**$ 1,070,156**	$ 1,200,838
Sponsored support *(Note 13)*				
Federal government – direct costs	436,552		**436,552**	448,832
Federal government – indirect costs	179,678		**179,678**	181,948
Non-federal sponsors – direct costs	76,385	$ 184,354	**260,739**	267,257
Non-federal sponsors – indirect costs	22,279	18,273	**40,552**	39,353
Total sponsored support	714,894	202,627	**917,521**	**937,390**
Gifts for current use *(Note 14)*	103,659	373,905	**477,564**	472,113
Investment income:				
Endowment returns made available for operations *(Note 8)*	364,763	1,633,993	**1,998,756**	1,908,423
GOA returns made available for operations	176,174		**176,174**	180,634
Other investment income	28,596	4,709	**33,305**	39,134
Total investment income	569,533	1,638,702	**2,208,235**	**2,128,191**
Other revenue *(Note 15)*	699,354		**699,354**	772,038
Net assets released from restriction	2,092,571	(2,092,571)	**0**	0
TOTAL OPERATING REVENUE	**5,250,167**	**122,663**	**5,372,830**	**5,510,570**
OPERATING EXPENSES:				
Salaries and wages	2,131,511		**2,131,511**	2,038,478
Employee benefits *(Note 11)*	620,752		**620,752**	555,793
Services purchased	670,485		**670,485**	680,691
Space and occupancy	364,163		**364,163**	379,290
Depreciation *(Note 7)*	376,855		**376,855**	382,775
Supplies and equipment	243,870		**243,870**	270,623
Interest *(Note 10)*	180,727		**180,727**	181,633
Scholarships and other student awards *(Note 12)*	163,618		**163,618**	155,874
Other expenses *(Note 16)*	630,897		**630,897**	557,801
TOTAL OPERATING EXPENSES	**5,382,878**	**0**	**5,382,878**	**5,202,958**
NET OPERATING (DEFICIT)/SURPLUS	**(132,711)**	**122,663**	**(10,048)**	**307,612**
NON-OPERATING ACTIVITIES:				
Income from GOA Investments	8,808		**8,808**	5,112
GOA realized and change in unrealized appreciation, net *(Note 3)*	281,613		**281,613**	261,944
GOA returns made available for operations	(176,174)		**(176,174)**	(180,634)
Change in pledge balances *(Note 6)*		(171,440)	**(171,440)**	352,553
Change in interests in trusts held by others		657	**657**	1,656
Gifts for facilities and loan funds *(Note 14)*		51,448	**51,448**	86,372
Change in retirement obligations *(Note 11)*	(81,927)		**(81,927)**	(136,456)
Other changes	(12,670)		**(12,670)**	(17,505)
Transfers between GOA and endowment *(Note 8)*	(3,052)	4,595	**1,543**	(92,420)
Transfers between GOA and split interest agreements *(Note 9)*		11,916	**11,916**	13,886
Non-operating net assets released from restrictions	148,302	(148,302)	**0**	0
TOTAL NON-OPERATING ACTIVITIES	**164,900**	**(251,126)**	**(86,226)**	**294,508**
GENERAL OPERATING ACCOUNT NET CHANGE DURING THE YEAR	**32,189**	**(128,463)**	**(96,274)**	**602,120**
Endowment net change during the year	283,226	681,454	**964,680**	1,695,964
Split interest agreements net change during the year *(Note 9)*		24,824	**24,824**	14,218
NET CHANGE DURING THE YEAR	**315,415**	**577,815**	**893,230**	**2,312,302**
Net assets, beginning of year	11,981,702	37,294,784	**49,276,486**	**46,964,184**
NET ASSETS, END OF YEAR	**$ 12,297,117**	**$ 37,872,599**	**$ 50,169,716**	**$ 49,276,486**

The accompanying notes are an integral part of the consolidated financial statements.

STATEMENTS OF CHANGES IN NET ASSETS OF THE ENDOWMENT

with summarized financial information for the year ended June 30, 2019

In thousands of dollars	Without Donor Restrictions	With Donor Restrictions	For the year ended June 30 2020	2019
Investment return *(Note 3):*				
Income from general investments	$ 13,549	$ 60,756	**$ 74,305**	$ 37,189
Realized and change in unrealized appreciation, net	477,536	2,124,590	**2,602,126**	2,289,499
Total investment return	491,085	2,185,346	**2,676,431**	**2,326,688**
Endowment returns made available for operations	(364,763)	(1,633,993)	**(1,998,756)**	(1,908,423)
Net investment return	126,322	551,353	**677,675**	**418,265**
Gifts for endowment *(Note 14)*	78,342	390,861	**469,203**	613,287
Transfers between endowment and the GOA *(Note 8)*	3,052	(4,595)	**(1,543)**	92,420
Capitalization of split interest agreements *(Note 9)*		12,136	**12,136**	15,213
Change in pledge balances *(Note 6)*		(191,451)	**(191,451)**	575,155
Change in interests in trusts held by others *(Note 8)*		6,331	**6,331**	9,747
Other changes	(203)	(7,468)	**(7,671)**	(28,123)
Net assets released from restrictions	75,713	(75,713)	**0**	0
NET CHANGE DURING THE YEAR	**283,226**	**681,454**	**964,680**	**1,695,964**
Net assets of the endowment, beginning of year	7,091,584	33,838,116	**40,929,700**	39,233,736
NET ASSETS OF THE ENDOWMENT, END OF YEAR	**$ 7,374,810**	**$ 34,519,570**	**$ 41,894,380**	**$ 40,929,700**

The accompanying notes are an integral part of the consolidated financial statements.

STATEMENTS OF CASH FLOWS

with summarized financial information for the year ended June 30, 2019

In thousands of dollars	For the year ended June 30 2020	2019
CASH FLOWS FROM OPERATING ACTIVITIES:		
Change in net assets	**$ 893,230**	$ 2,312,302
Adjustments to reconcile change in net assets to net cash (used in) operating activities:		
Depreciation	**376,855**	382,775
Amortization of premium and discount related to bonds and notes payable	**(28,489)**	(27,272)
Realized and change in unrealized appreciation, net	**(2,940,852)**	(2,611,556)
Change in fair value of interest rate exchange agreements	**16,832**	11,928
Change in interests in trusts held by others	**(6,988)**	(11,403)
Change in liabilities due under split interest agreements	**(14,147)**	30,786
Gifts of donated securities	**(114,118)**	(92,158)
Proceeds from the sales of gifts of unrestricted securities	**18,886**	14,198
Gifts for restricted purposes	**(335,376)**	(518,827)
Cost of issuance of debt	**(4,213)**	
Loss on disposal of assets	**181,349**	41,239
Change in accrued retirement obligations	**95,707**	136,992
Non-cash operating lease costs	**25,759**	
Changes in operating assets and liabilities:		
Receivables, net	**33,590**	4,937
Prepayments and deferred charges	**(38,201)**	(135,794)
Pledges receivable, net	**362,652**	(928,035)
Accounts payable	**(37,995)**	77,182
Deferred revenue and other liabilities	**77,367**	189,568
Operating lease liability	**(27,070)**	
NET CASH (USED IN) OPERATING ACTIVITIES	**(1,465,222)**	**(1,123,138)**
CASH FLOWS FROM INVESTING ACTIVITIES:		
Loans made to students, faculty, and staff	**(49,990)**	(41,938)
Payments received on student, faculty, and staff loans	**52,515**	49,720
Change in other notes receivable	**(1,136)**	390
Proceeds from the sales and maturities of investments	**14,837,933**	15,186,174
Purchase of investments	**(13,911,250)**	(14,002,833)
Change associated with repurchase agreements	**296,726**	374,719
Additions to fixed assets	**(764,415)**	(994,830)
NET CASH PROVIDED BY INVESTING ACTIVITIES	**460,383**	**571,402**
CASH FLOWS FROM FINANCING ACTIVITIES:		
Change in overdrafts included in accounts payable	**4,194**	(7,618)
Change in split interest liability from new contributions, income and payments to annuitants	**(26,013)**	(33,455)
Proceeds from issuance of debt	**602,131**	480,900
Debt repayments	**(118,099)**	(541,200)
Proceeds from the sales of gifts of restricted securities	**95,232**	77,960
Gifts for restricted purposes	**335,376**	518,827
Affiliated entity contributions and distributions, net	**56**	397
Change in government loan advances	**(21,985)**	1,324
NET CASH PROVIDED BY FINANCING ACTIVITIES	**870,892**	**497,135**
NET CHANGE IN CASH	**(133,947)**	**(54,601)**
Cash, beginning of year	**1,494,545**	**1,549,146**
CASH, END OF YEAR	**$ 1,360,598**	**$ 1,494,545**
Cash and cash equivalents (per *Balance Sheets)*	**$ 176,615**	$ 158,640
Cash and cash equivalents held in investments *(Note 3)*	**1,183,983**	1,335,905
TOTAL CASH AND CASH EQUIVALENTS	**$ 1,360,598**	**$ 1,494,545**
Supplemental disclosure of cash flow information:		
Accounts payable related to fixed asset additions	$ 35,237	$ 77,904
Cash paid for interest	$ 212,831	$ 216,110
Non-cash proceeds from issuance of debt	$ 450,000	
Use of non-cash proceeds to refinance debt	$ (450,000)	

The accompanying notes are an integral part of the consolidated financial statements.

1. UNIVERSITY ORGANIZATION

Harvard University (the "University") is a private, not-for-profit institution of higher education with approximately 6,700 undergraduate and 13,600 graduate students in fiscal year 2020. Established in 1636, the University includes the Faculty of Arts and Sciences, the John A. Paulson School of Engineering and Applied Sciences, the Division of Continuing Education, ten graduate and professional Schools, the Radcliffe Institute for Advanced Study, a variety of research museums and institutes, and an extensive library system to support the teaching and research activities of the Harvard community. The President and Fellows of Harvard College (the "Corporation"), a governing board of the University, has oversight responsibility for all of the University's financial affairs. The Corporation delegates substantial authority to the Schools and departments for the management of their resources and operations.

The University includes Harvard Management Company (HMC), a wholly owned subsidiary founded in 1974 to manage the University's investment assets. HMC is governed by a Board of Directors that is appointed by the Corporation.

2. SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES

Basis of presentation

The accompanying consolidated financial statements have been prepared on the accrual basis of accounting and include the accounts of the University and affiliated organizations controlled by the University. Significant inter-affiliate accounts and transactions have been eliminated.

Funds transferred to the University on behalf of specific beneficiaries (agency funds) are recorded as assets and liabilities in the *Balance Sheets* and are not included in the *Statement of Changes in Net Assets with General Operating Account Detail*.

The financial statements include certain prior year summarized comparative information in total, not by net asset classification. This information is not presented in sufficient detail to conform to generally accepted accounting principles (GAAP). Accordingly, such information should be read in conjunction with the University's financial statements for the year ended June 30, 2019, from which the summarized information is derived. Certain prior year amounts have been reclassified to conform to current year presentation.

Net asset classifications

For the purposes of financial reporting, the University classifies resources into two net asset categories pursuant to any donor-imposed restrictions and applicable law. Accordingly, the net assets of the University are classified in the accompanying financial statements in the categories that follow:

WITHOUT DONOR RESTRICTIONS—Net assets not subject to donor-imposed restrictions. Funds invested in fixed assets and unrestricted endowment funds comprise 93% of the University's net assets without donor-imposed restrictions as of June 30, 2020. In addition, this category includes gifts and endowment income balances where the donor restriction has been met, University-designated loan funds, and other current funds.

WITH DONOR RESTRICTIONS—Net assets subject to legal or donor-imposed restrictions that will be satisfied either by actions of the University, the passage of time, or both. These net assets include net assets subject to donor-imposed restrictions that are invested to provide a perpetual source of income to the University. Generally, donors of these assets require the University to maintain and invest the original contribution in perpetuity, but permit the use of some or all investment returns for general or specific purposes. The appreciation on these perpetual contributions must be reported as net assets with donor restrictions until appropriated for spending in accordance with Massachusetts law. Also included in this category are gifts donated for a particular purpose and amounts subject to time restrictions such as funds pledged for future payment.

Revenues from sources other than contributions are generally reported as increases in net assets without donor restrictions. Expenses are reported as decreases in net assets without donor restrictions. Gains and losses on investments are reported as increases or decreases in net assets without donor restrictions, unless their use is restricted by donor stipulations or by law. Investment returns earned by restricted donor funds are initially classified as net assets with donor restrictions and then reclassified to net assets without donor restrictions when expenses are appropriated or incurred for their intended purpose. Expirations of donor restrictions on net assets are reported as reclassifications from net assets with donor restrictions to net assets without donor restrictions and appear as "Net assets released from restrictions" and "Non-operating net assets released from restrictions" in the *Statements of Changes in Net Assets*.

Cash and cash equivalents

Effective July 1, 2019, the University adopted ASU 2016-18, *Restricted Cash (Topic 230): Statement of Cash Flows* which requires all cash and cash equivalents, including cash amounts held in the endowment, to be included in cash and cash equivalents presented in the *Statements of Cash Flows*. As a result of adopting this standard, certain amounts previously reported as of June 30, 2019 were adjusted to conform to the presentation requirements as follows:

	As previously presented	Cash and cash equivalents held in investments	New amount after adoption of ASU
Cash, beginning of the year	$ 144,982	$ 1,404,164	$ 1,549,146
Cash, end of the year	158,640	1,335,905	1,494,545
Proceeds from the sales and maturities of investments	15,001,898	184,276	15,186,174
Purchase of investments	(13,750,298)	(252,535)	(14,002,833)

Liquidity and availability

As part of the University's liquidity management, it has a policy to structure its financial assets to be available as its general expenditures, liabilities and other obligations come due. A significant portion of the University's annual expenditures are funded by operating revenues in the current year including student income, sponsored support, endowment returns made available for operations, gifts for current use and other revenues.

The University's financial assets available within one year of the balance sheet date for general expenditure, such as operating expenses, scheduled principal payments on debt, and capital construction costs not financed with debt, are as follows (in thousands):

	June 30, 2020	2019
FINANCIAL ASSETS		
Cash and cash equivalents	$ 176,615	$ 158,640
Receivables, net	262,731	296,321
Pledge receivables due in one year	190,190	221,587
Cash, cash equivalents, and short-term investments held separately by General Operating Account (GOA)	1,559,440	1,013,861
Endowment and GOA returns made available for operations in the following year[1]	2,184,082	2,175,806
TOTAL FINANCIAL ASSETS AVAILABLE WITHIN ONE YEAR	**$ 4,373,058**	**$ 3,866,215**
LIQUIDITY RESOURCES		
Credit facility, undrawn balance	1,500,000	1,500,000
Tax-exempt commercial paper, undrawn balance	1,000,000	650,000
Taxable commercial paper, undrawn balance	2,000,000	2,000,000
TOTAL FINANCIAL ASSETS AND RESOURCES AVAILABLE WITHIN ONE YEAR	**$ 8,873,058**	**$ 8,016,215**

[1] *Within its investment pools, the University holds cash, cash equivalents, repurchase agreements, and unencumbered US government securities that could be liquidated to fund this amount* (Note 3).

Endowment and GOA returns liquidated from investments and made available for operations over the course of the fiscal year are distributed to University department and program budgets to spend, subject to donor restrictions where applicable.

While the University has no intention of doing so, there are additional investments held by the University and the endowment that could be liquidated in the event of an unexpected disruption. While a portion of the endowment is subject to donor restrictions, there is $7.4 billion and $7.1 billion in endowment funds without donor restrictions at June 30, 2020 and 2019, respectively and $3.5 billion and $3.7 billion of General Operating Account investments (GOA) at June 30, 2020 and 2019, respectively, that could be accessed with the approval of the Corporation and subject to the redemption provisions described in *Note 3*.

Revenue recognition

Revenue is recognized when control of promised goods or services is transferred to customers, in an amount that reflects the consideration the University expects to be entitled to in exchange for those goods or services.

Student income is derived from degree programs as well as executive and continuing education programs and includes tuition, fees, and board and lodging. Student income is recognized ratably over the academic period of the course or program offered based on time elapsed, and scholarships awarded to students reduce the amount of revenue recognized. The University's individual schools have various billing and academic cycles and the majority of our programs are completed within the fiscal year. Student income received in advance of services to be rendered is recorded as deferred revenue which totaled $208.3 million and $213.7 million, respectively, for the periods ended June 30, 2020 and 2019, which are primarily recognized in the subsequent fiscal year.

Total student income of $1.1 billion and $1.2 billion was recorded during the years ended June 30, 2020 and 2019, respectively. Student tuition, fees, board and lodging at published rates is summarized as follows for the years ended June 30, 2020 and 2019 (in thousands of dollars):

	2020	2019
Undergraduate program	**$ 347,292**	$ 339,475
Graduate and professional degree programs	**613,614**	605,833
Continuing education and executive programs	**425,867**	516,077
Board and lodging	**164,372**	196,822

Scholarships applied to student charges were $480,989 and $457,369 for the years ended June 20, 2020 and 2019, respectively.

Unconditional contributions including pledges are recognized immediately and classified as either net assets with donor restrictions or net assets without donor restrictions. Conditional contributions for which cash is received are accounted for as a liability within deferred revenue.

Sponsored support of $917.5 million includes support from governmental and private sources. Certain sponsored arrangements are considered exchange arrangements, and revenue under these agreements is recognized based on the University's fulfillment of the contract, which is typically based on costs incurred or the achievement of milestones. Other sponsored support is considered contribution revenue, which is recognized when any donor-imposed conditions have been met, if applicable. Sponsored conditional contributions received, where the barrier to entitlement is not yet overcome are recorded as deferred revenues of $51.2 million as of June 30, 2020 and 2019. As of June 30, 2020, the University also had $1.4 billion awarded but not yet expended contributions related to sponsored programs where the condition had not yet been met. This is subject to federal appropriations. Funding received in advance of recognition is recorded as deferred revenue.

Other revenue of $699.4 million includes several revenue streams considered exchange contracts with customers totaling $579.7 million for fiscal year 2020. These revenues are recognized at the point in time goods or services are provided. Deferred revenues related to other income of $107.6 million and $109.0 million were recorded as of June 30, 2020 and 2019, which are primarily recognized in the subsequent fiscal year.

Measure of operations

Revenues earned, expenses incurred, and returns made available for operations for the purpose of teaching, conducting research, and the other programs and services of the University are the components of "Net operating surplus" in the *Statement of Changes in Net Assets with General Operating Account Detail*. The University's non-operating activity within the *Statement of Changes in Net Assets with General Operating Account Detail* includes contributions to the University's building construction and renovation funds, investment returns (net of amounts made available for operations), change in pledge balances, long-term benefit plan obligation funding changes, and other infrequent transactions.

Collections

The University's vast array of museums and libraries contains priceless works of art, historical treasures, literary works, and artifacts. These collections are protected and preserved for public exhibition, education, research, and the furtherance of public service. They are neither disposed of for financial gain nor encumbered in any manner. Accordingly, such collections are not recorded for financial statement purposes.

Insurance programs

The University, together with the Harvard-affiliated teaching hospitals, has formed a captive insurance company, Controlled Risk Insurance Company (CRICO), to provide limited professional liability, general liability, and medical malpractice insurance for its shareholders. The University self-insures a portion of its professional liability and general liability programs and maintains a reserve for incurred claims, including those related to Harvard Medical School activities not occurring in the affiliated teaching hospitals. CRICO provided malpractice coverage applies with no deductible for medical professionals practicing within Harvard's University Health Services department, the School of Dental Medicine, and the T.H. Chan School of Public Health. The University also maintains reserves for the self-insured portion of claims related to automobile liability, property damage, and workers' compensation; these programs are supplemented with commercial excess insurance above the University's self-insured limit. In addition, the University is self-insured for unemployment, the primary retiree health plan, and all health and dental plans for active employees. The University's claims liabilities are recognized as incurred, including claims that have been incurred but not reported, and are included in operating expenses.

Tax

The University is a tax-exempt organization under Section 501(c)(3) of the Internal Revenue Code.

On December 22, 2017, the Tax Cuts and Jobs Act (the "Act") was enacted. The Act impacts the University in several ways, including the addition of excise taxes on executive compensation and net investment income, as well as new rules for calculating unrelated business taxable income. The University records an estimate for related tax expense based on currently available regulatory guidance of the Act, and continues to evaluate the impact of the Act on current and future tax positions.

Use of estimates

The preparation of financial statements in accordance with U.S. GAAP requires management to make estimates and assumptions that affect reported amounts and disclosures. Actual results could differ from those estimates.

New accounting pronouncements

Effective July 1, 2019, the University adopted ASU 2017-07, *Compensation — Retirement Benefits (Topic 715): Improving the Presentation of Net Periodic Pension Cost and Net Periodic Postretirement Benefit Cost*. The amendment requires the bifurcation of net benefit cost where the service cost component continues to be presented with other employee costs in operating income (or capitalized in assets) and the other components (such as interest, expected return on plan assets, and amortization of actuarially determined amounts) are required to be presented as a nonoperating change in net assets without restrictions. The new standard requires retrospective application and allows a practical expedient that permits an employer to use the amounts disclosed in its employee benefits footnote for the prior comparative periods as the estimation basis for applying the retrospective presentation. The University utilized the practical expedient to estimate the impact on the fiscal 2019 information. The adoption of the standard resulted in the reclassification of $9.7 million in net periodic benefit costs, other than service costs, from "Employee benefits" expense to "Change in retirement obligations" nonoperating expense presented in the *Statement of Changes in Net Assets with General Operating Account Detail*. Therefore, the fiscal 2019 "Net Operating Surplus" increased $9.7 million, from $297.9 million to $307.6 million.

Effective July 1, 2019, the University adopted ASU 2016-02, *Leases,* which requires a lessee to recognize a right of use asset and a lease liability, initially measured at the present value of the lease payments, in its balance sheet. The guidance also expands the required quantitative and qualitative disclosures surrounding leases. The effects of adopting this guidance resulted in the inclusion of the present value of operating lease payments in the *Balance Sheets* as "Operating leases—right of use assets" of $780.5 million and "Operating leases liabilities" of $794.7 million upon adoption. The University elected the package of practical expedients to not reassess: (1) whether any expired or existing contracts are or contain leases, (2) lease classification for any expired or existing leases and (3) initial direct costs for any expired or existing leases. The University elected the short-term lease exemption policy as well as the practical expedient that allows lessees to treat the lease and non-lease components as a single lease component. In addition, the University elected to use hindsight to reassess lease terms or impairment at the adoption date. The effects of adopting this amendment are addressed in *Note 18*.

Effective July 1, 2019, the University adopted ASU 2016-18, *Restricted Cash (Topic 230): Statement of Cash Flows*. The amendments in the update require that a statement of cash flows explain the change during the period in the total of cash, cash equivalents, and amounts generally described as restricted cash or restricted cash equivalents. Therefore, amounts generally described as restricted cash and restricted cash equivalents are now included with cash and cash equivalents when reconciling the beginning-of-period and end-of-period total amounts shown on the statement of cash flows. The effects of adopting this amendment resulted in all cash and cash equivalents, including those held in the endowment, to be included in cash and cash equivalents presented in the *Statements of Cash Flows*. The adoption of this amendment is summarized in "Cash and cash equivalents" on page 19.

Effective July 1, 2019, the University adopted ASU 2016-15, *Classification of Certain Cash Receipts and Cash Payments (Topic 230): Statement of Cash Flows*. ASU 2016-15 clarifies how certain cash receipts and cash payments in the statement of cash flows are presented. The University adopted ASU 2016-15 retrospectively. The guidance did not have a significant impact on the University's consolidated financial statements.

Effective July 1, 2019, the University adopted ASU 2016-01, *Recognition and Measurement of Financial Assets and Financial Liabilities,* which addresses certain aspects of recognition, measurement, presentation and disclosure of financial instruments. This guidance allows an entity to choose, investment-by-investment, to report an equity investment that neither has a readily determinable fair value, nor qualifies for the practical expedient for fair value estimation using net asset value (NAV), at its cost minus impairment (if any), plus or minus changes resulting from observable price changes in orderly transactions for the identical or similar investment of the same issue. Impairment of such investments must be assessed qualitatively at each reporting period. Entities must disclose their financial assets and liabilities by measurement category and form of asset either on the face of the statement of financial position or in the accompanying notes. This guidance did not have a significant impact on the University's consolidated financial statements.

Effective July 1, 2018, the University adopted ASU 2016-14, *Presentation of Financial Statements for Not-for-Profit Entities*. This guidance is intended to improve the net asset classification requirements and the information presented in the financial statements and notes. The standard requires the University to reclassify its net assets (i.e., unrestricted, temporarily restricted, and permanently restricted) into two categories: net assets without donor restrictions and net assets with donor restrictions. In addition, underwater endowment funds were recognized as a reduction in net assets with donor restrictions and enhanced disclosures are required for board-designated amounts *(Note 8)*, liquidity and availability of financial assets *(Note 2)*, and expenses by both their natural and functional classification *(Note 17)*.

Effective July 1, 2018, the University adopted ASU 2014-09 *Revenue from Contracts with Customers (ASC 606)* using the modified retrospective transition method—i.e., by recognizing the cumulative effect of initially applying ASC 606 as an adjustment to the opening balance of net assets at July 1, 2018. The University elected to apply the standard only to contracts that are not completed as of that date. The guidance did not have a significant impact on the University's consolidated financial statements.

Effective July 1, 2018, the University adopted ASU 2018-08, *Clarifying the Scope and the Accounting Guidance for Contributions Received and Contributions Made*, simultaneously with adoption of the new revenue standard, using the modified prospective transition method. The guidance did not have a significant impact on the University's consolidated financial statements.

Effective July 1, 2018, the University adopted ASU 2018-13, *ASC 820 Fair Value Measurement*, which simplifies fair value measurement disclosures through the removal and modification of a number of investment related disclosure requirements. Certain disclosures are no longer required including amount of and reasons for transfers between Levels 1 and 2; policy for timing of transfers between levels and valuation processes for Level 3 investments. The guidance did not have a significant impact on the University's consolidated financial statements.

3. INVESTMENTS

Investments are presented at fair value in accordance with GAAP and under the guidelines prescribed by the HMC investment valuation policy, which is reviewed and approved by the HMC Board of Directors on an annual basis.

The majority of the University's investments are managed by HMC in the GIA, a pooled investment account that consists primarily of endowment assets. Certain other investments such as cash, short-term investments, split interest agreements and other assets, are managed separately from the GIA.

The University's investment holdings as of June 30, 2020 and 2019 are summarized in the following table (in thousands of dollars):

	2020	2019
Investment portfolio assets		
Pooled general investment account assets	**$ 45,681,215**	$ 44,875,461
Other investments	**2,430,226**	1,848,509
Investment portfolio, at fair value	**48,111,441**	**46,723,970**
Securities pledged to counterparties, at fair value	**214,010**	49,971
TOTAL INVESTMENT ASSETS	**48,325,451**	**46,773,941**
Pooled general investment account liabilities	**833,777**	847,732
Interest rate exchange agreement	**44,241**	27,409
TOTAL OTHER LIABILITIES ASSOCIATED WITH THE INVESTMENT PORTFOLIO	**878,018**	**875,141**
TOTAL INVESTMENTS, NET	**$ 47,447,433**	**$ 45,898,800**

As of June 30, 2020 and 2019, University net investments were comprised of the following components (in thousands of dollars):

	2020	2019
POOLED GENERAL INVESTMENT ACCOUNT		
Endowment[1]	**$ 39,982,475**	$ 38,843,726
General operating account	**3,486,092**	3,716,277
Split interest agreements	**803,490**	780,737
Other internally designated funds	**789,391**	736,960
TOTAL POOLED GENERAL INVESTMENT ACCOUNT NET ASSETS	**$ 45,061,448**	**$ 44,077,700**
OTHER INVESTMENTS OUTSIDE THE GENERAL INVESTMENT ACCOUNT		
General operating and other investments[2]	**1,771,698**	1,168,724
Split interest agreements	**614,287**	652,376
TOTAL OTHER INVESTMENTS OUTSIDE THE GENERAL INVESTMENT ACCOUNT	**$ 2,385,985**	**$ 1,821,100**
TOTAL INVESTMENTS, NET	**$ 47,447,433**	**$ 45,898,800**

1 *Includes only the portion of the endowment invested in the GIA and excludes pledges, interests in trusts held by others, other non-GIA investments, and GIA interest and dividends net of all internal and external management fees and expenses.*
2 *Consists primarily of repurchase agreements, US government securities, money markets, and fixed income funds, net of unsettled trades, totaling $1,582,042 and $1,036,080 as of June 30, 2020 and 2019, respectively.*

Investment return

A summary of the University's total return on investments for fiscal years 2020 and 2019 is presented below (in thousands of dollars):

	2020	2019
Return on pooled general investment account:		
Realized and change in unrealized appreciation, net	**$ 2,931,018**	$ 2,612,986
Interest, dividends, fees, and expenses, net	**83,852**	42,631
Total return on pooled general investment account[1]	**3,014,870**	**2,655,617**
Return on other investments:		
Realized and change in unrealized appreciation/(depreciation), net	**9,834**	(1,430)
Interest, dividends, fees, and expenses, net	**45,685**	52,619
Total return on other investments	**$ 55,519**	**$ 51,189**
Realized and change in unrealized depreciation on interest rate exchange agreement, net	**(19,070)**	(13,880)
TOTAL RETURN ON INVESTMENTS[2]	**$ 3,051,319**	**$ 2,692,926**

1 *Net of all internal and external management fees and expenses.*
2 *Total return on investments is comprised of returns on the endowment, GOA, Split Interest Agreements and other.*

Fair value hierarchy

The University's investments have been categorized based upon the fair value hierarchy in accordance with ASC 820, which prioritizes the inputs to valuation techniques used to measure fair value of investment assets and liabilities into three levels:

LEVEL 1 Unadjusted quoted prices in active markets that are accessible at the measurement date for identical, unrestricted assets or liabilities;

LEVEL 2 Quoted prices in markets that are not considered to be active or financial instruments for which all significant inputs are observable, either directly or indirectly;

LEVEL 3 Prices or valuations that require inputs that are significant to the fair value measurement, unobservable and/or require the University to develop its own assumptions.

Investments in externally managed funds where the University utilizes net asset values (as reported by external managers) as a practical expedient for fair value measurements are excluded from the fair value hierarchy.

The level of an asset or liability within the fair value hierarchy is based on the lowest level of any input that is significant to the fair value measurement. The University endeavors to utilize all relevant and available information in measuring fair value.

The following is a summary of the levels within the fair value hierarchy for those investment assets and liabilities subject to fair value measurement as of June 30, 2020 and summarized as of June 30, 2019 (in thousands of dollars):

	2020					2019
	Level 1	Level 2	Level 3	NAV as Practical Expedient	Total	Total
ASSETS:[1]						
Cash and cash equivalents[2]	$ 1,183,983				**$ 1,183,983**	**$ 1,335,905**
Repurchase agreements		$ 477,918			**477,918**	**774,644**
Domestic equity	1,356,614			$ 2,259,044	**3,615,658**	**3,901,454**
Foreign equity	788,498			1,079,005	**1,867,503**	**2,293,307**
Global equity				1,542,236	**1,542,236**	**1,660,465**
Domestic fixed income	2,099,086			613,814	**2,712,900**	**1,813,376**
Foreign fixed income	20,729				**20,729**	**25,597**
Emerging market equity and debt	282,956			2,973,471	**3,256,427**	**3,307,520**
High yield	3,276		$ 264,452		**267,728**	**237,008**
Hedge funds				15,515,652	**15,515,652**	**14,304,432**
Private equity			477,858	10,569,260	**11,047,118**	**9,848,429**
Natural resources	21,213		1,291,911	16,800	**1,329,924**	**1,914,055**
Real estate	15,354		24,627	3,169,662	**3,209,643**	**3,610,419**
Inflation-indexed bonds	935,440				**935,440**	**871,832**
Due from brokers		25,664	4,629		**30,293**	**49,079**
Other investments			6,712		**6,712**	**17,793**
INVESTMENT ASSETS SUBJECT TO FAIR VALUE LEVELING	**$ 6,707,149**	**$ 503,582**	**$ 2,070,189**	**$ 37,738,944**	**$ 47,019,864**	**$ 45,965,315**
Other investment assets not subject to fair value[3]					**1,305,587**	**808,626**
TOTAL INVESTMENT ASSETS[4]					**$ 48,325,451**	**$ 46,773,941**
Interests in trusts held by others[5]			427,359		**427,359**	**420,371**
NON-INVESTMENT ASSETS SUBJECT TO FAIR VALUE LEVELING			**$ 427,359**		**$ 427,359**	**$ 420,371**
TOTAL ASSETS					**$ 48,752,810**	**$ 47,194,312**
LIABILITIES:						
Due to brokers[6]	$ 12,373	$ 119,692			**$ 132,065**	**$ 33,912**
Other liabilities subject to fair value			$ 246,410		**246,410**	**288,372**
INVESTMENT LIABILITIES SUBJECT TO FAIR VALUE LEVELING	**$ 12,373**	**$ 119,692**	**$ 246,410**		**$ 378,475**	**$ 322,284**
Other investment liabilities not subject to fair value[7]					**499,543**	**552,857**
TOTAL INVESTMENT LIABILITIES[4]					**$ 878,018**	**$ 875,141**
Liabilities due under split interest agreements[5]		$ 819,584			**819,584**	**859,744**
NON-INVESTMENT LIABILITIES SUBJECT TO FAIR VALUE LEVELING		**$ 819,584**			**$ 819,584**	**$ 859,744**
TOTAL LIABILITIES					**$ 1,697,602**	**$ 1,734,885**

1 *Certain prior year amounts have been reclassified to conform to current year presentation.*
2 *This excludes money markets held in "Cash and cash equivalents" on the* Balance Sheets *of $65.0 million as of June 30, 2020, which are Level 1 investments. There were no money markets held in "Cash and cash equivalents" as of June 30, 2019.*
3 *As of June 30, 2020, other assets not subject to fair value consists primarily of receivables for transactions that settled subsequent to the balance sheet date of $1,189,950, before eliminating inter-company balances, and consolidated assets of $146,365. As of June 30, 2019, other assets not subject to fair value consist primarily of receivables for transactions that settled subsequent to the balance sheet date of $599,651, before eliminating inter-company balances, and consolidated assets of $159,745.*
4 *As of June 30, 2020 and 2019, total investments, net equal $47,447,433 and $45,898,800, respectively.*
5 *Amounts excluded from investments and included separately on the University's* Balance Sheets.
6 *Includes fair value of an interest rate exchange agreement on the University's debt portfolio of $44,241 and $27,409 as of June 30, 2020 and 2019, respectively.*
7 *As of June 30, 2020 and 2019, other liabilities not subject to fair value include consolidated liabilities of $167,795 and $199,693, respectively.*

The following is a rollforward of Level 3 investments for the year ended June 30, 2020 and the condensed June 30, 2019 rollforward of Level 3 investments (in thousands of dollars).

	Beginning balance as of July 1, 2019	Net realized gains/(losses)	Net change in unrealized appreciation (depreciation)[1]	Purchases/ contributions	Sales/ distributions	Ending balance as of June 30, 2020
INVESTMENT ASSETS:						
High yield	$ 234,110	$ 328	$ (9,850)	$ 443,087	$ (403,223)	**$ 264,452**
Private equity	289,143	(17,187)	85,395	219,633	(99,126)	**477,858**
Natural resources	1,878,205	103,248	(258,527)	261,320	(692,335)	**1,291,911**
Real estate	48,644	60	(23,417)		(660)	**24,627**
Due from brokers	4,638		(9)			**4,629**
Other investments	7,609	1,143	(2,040)			**6,712**
INVESTMENT ASSETS SUBJECT TO FAIR VALUE LEVELING	**$ 2,462,349**	**$ 87,592**	**$ (208,448)**	**$ 924,040**	**$ (1,195,344)**	**$ 2,070,189**
Interests in trusts held by others	$ 420,371		$ 6,988			**427,359**
NON-INVESTMENT ASSETS SUBJECT TO FAIR VALUE LEVELING	**$ 420,371**		**$ 6,988**			**$ 427,359**
TOTAL ASSETS SUBJECT TO FAIR VALUE LEVELING	**$ 2,882,720**	**$ 87,592**	**$ (201,460)**	**$ 924,040**	**$ (1,195,344)**	**$ 2,497,548**
INVESTMENT LIABILITIES:						
Other liabilities subject to fair value	$ 288,372		$ (2,493)	$ (76,849)	$ 37,380	**$ 246,410**
TOTAL LIABILITIES SUBJECT TO FAIR VALUE LEVELING	**$ 288,372**	**$ 0**	**$ (2,493)**	**$ (76,849)**	**$ 37,380**	**$ 246,410**
NET ASSETS SUBJECT TO FAIR VALUE LEVELING	**$ 2,594,348**	**$ 87,592**	**$ (198,967)**	**$ 1,000,889**	**$ (1,232,724)**	**$ 2,251,138**

1 *Total change in unrealized appreciation/(depreciation) relating to Level 3 investment assets and investment liabilities still held by the University at June 30, 2020 is $(233,329) and is reflected in "Realized and change in unrealized appreciation/(depreciation), net" in the* Statements of Changes in Net Assets.

	Beginning balance as of July 1, 2018	Net realized gains/(losses)	Net change in unrealized appreciation (depreciation)[1]	Purchases/ contributions	Sales/ distributions	Transfers out of Level 3	Ending balance as of June 30, 2019
PRIOR YEAR NET ASSETS SUBJECT TO FAIR VALUE LEVELING[2]	**$ 2,909,705**	**$ (71,820)**	**$ (121,636)**	**$ 288,911**	**$ (238,778)**	**$ (172,034)**	**$2,594,348**

1 *Total change in unrealized appreciation/(depreciation) relating to Level 3 investment assets and investment liabilities still held by the University at June 30, 2019 is $(219,543) and is reflected in "Realized and change in unrealized appreciation/(depreciation), net" in the* Statements of Changes in Net Assets.
2 *Certain prior year amounts have been reclassified to conform to current year presentation.*

Investment strategy and risk

The University utilizes a number of wholly owned subsidiary entities to support its investment activities. The consolidated financial statements include all assets, liabilities, income, and expenses associated with these entities and intercompany accounts and transactions have been eliminated during consolidation.

The University's investment strategy incorporates a diversified asset allocation approach and maintains, within defined limits, exposure to the movements of the global public and private equity, fixed income, real estate, and commodities markets. Exposure to these markets is achieved through direct investments in individual securities, investments in special purpose vehicles and/or through investments in vehicles advised by external managers.

Investments in global markets involve a multitude of risks such as price, interest rate, market, sovereign, currency, liquidity and credit risks, amongst many others. Additionally, the University's direct investments in natural resources expose it to a unique set of risks, namely environmental, social and geopolitical risks in some of the jurisdictions where these direct investments reside. The University manages exposure to these risks through established policies and procedures related to its ongoing investment diligence and operational due diligence programs. The University also considers manager concentration risk. As of June 30, 2020, 18% of the GIA NAV was invested across 5 diversified fund managers. The University anticipates that the value and composition of its investments may, from time to time, fluctuate substantially in response to any or all of the risks described herein.

Liquidity

Cash, cash equivalents, and short-term investments are recorded at cost, which approximates fair value, and includes cash in bank accounts, institutional money market funds and other temporary investments held for working capital purposes with original maturities of three months or less. Cash, cash equivalents, and short-term investments do not include cash balances held as collateral by the University. Cash, cash equivalents, and short-term investment balances designated for investment purposes are included in the "Investment portfolio, at fair value" in the *Balance Sheets*.

The University has various sources of liquidity at its disposal within its investment pools, including money markets of $1.1 billion and repurchase agreements of $0.5 billion at June 30, 2020. In addition, the University estimates that as of the balance sheet date, it could have liquidated additional unencumbered US government securities of $2.7 billion within one business day (assuming typical settlement terms) to meet any immediate short-term needs of the University (unaudited).

Repurchase agreements

The University *Balance Sheets* display the assets generated by repurchase transactions. The University enters into these transactions under agreements containing master netting arrangements. The University requires the fair value of the collateral exchanged under these agreements to be equal to or in excess of the total amount of the agreement, including interest where applicable. At June 30, 2020 and 2019 the University had gross asset repurchase agreements of $0.5 billion and $0.8 billion which were fully collateralized. The University does not offset repurchase agreements that are subject to master netting arrangements or similar arrangements on the University's *Balance Sheets*.

Dividend and interest income

Dividend income is recognized net of applicable withholding taxes on the ex-dividend date. Non-cash dividends are recorded at the fair value of the securities received. Interest income and expense is recorded net of applicable withholding taxes, on an accrual basis. The University amortizes bond premiums and accretes bond discounts using the effective yield method and when cash collection is expected.

Traded securities

Instruments listed or traded on a securities exchange are valued at the last quoted price on the primary exchange where the security is traded. Where there is no readily available closing price on the valuation date, long positions are valued at the bid price and short positions are valued at the ask price. Restrictions that are attached to a security are factored into the valuation of that security, reflective of the estimated impact of those restrictions. Investments in non-exchange traded debt and equity instruments are primarily valued using inputs provided by independent pricing services or by broker/dealers who actively make markets in these securities.

Derivatives

The University uses a variety of financial instruments with off-balance sheet risk involving contractual or optional commitments for future settlement, which are exchange traded or executed over the counter (OTC). These instruments are used to (1) manage exposure to certain asset classes and/or various market risks, (2) arbitrage mispricings of related securities and (3) to manage the interest, cost and risk associated with its outstanding and/or future debt. These instruments are classified as due to/from brokers and may include option, swap, credit default, interest rate, and forward contracts. These types of instruments are primarily valued using industry standard models with independent market inputs, or by broker quotes. Inputs such as prices, spreads, curves, and/or broker quotes are evaluated for source reliability and consistency with industry standards. Counterparty marks obtained and utilized to determine daily collateral requirements are also used to corroborate input reasonability. The University considers current market conditions including interest rate and credit risks in its evaluation of inputs, pricing methodologies, and models utilized to determine fair values.

In connection with its investments in derivatives, the University maintains master netting agreements and collateral agreements with its counterparties. These agreements provide the University the right, in the event of default by the counterparty (such as bankruptcy or a failure to pay or perform), to net a counterparty's rights and obligations under the agreement and to liquidate and offset collateral against any net amount owed by the counterparty. Collateral, generally in the form of debt obligations issued by the US Treasury, is exchanged on a daily basis as required by fluctuations in the market.

Specific credit limits are established for counterparties based on their individual credit ratings. Credit limits are monitored daily by the University and are adjusted according to policy, as necessary. Some of the financial instruments entered into by the University contain credit-risk-related contingency features that allow the parties to the agreement to demand immediate payment for outstanding contracts and/or collateral.

The following table presents information about the University's derivatives by primary risk exposure for the years ended June 30, 2020 and 2019 (in thousands of dollars):

	As of June 30, 2020			For the year ended June 30, 2020	As of June 30, 2019			For the year ended June 30, 2019
Primary risk exposure	Average Quarterly Notional	Gross derivative assets	Gross derivative liabilities	Net profit/(loss)[4]	Average Quarterly Notional	Gross derivative assets	Gross derivative liabilities	Net profit/(loss)[4]
Equity instruments	$ 3,443,938	$ 59,867	$ 122,097	$ 92,208	$ 1,686,686	$ 63,618	$ 25,824	$ 10,413
Fixed income instruments[1]	117,000		44,241	(19,070)	117,000		27,409	(13,880)
Currency instruments	21,020	10	14	(150)	1,151,191	527	468	(1,408)
Credit instruments	4,723	4,703		21	4,726	4,723		12
SUBTOTAL		**$ 64,580**	**$ 166,352**	**$ 73,009**		**$ 68,868**	**$ 53,701**	**$ (4,863)**
TOTAL COUNTERPARTY NETTING[2]		**(34,984)**	**(34,984)**			**(19,789)**	**(19,789)**	
NET AMOUNTS INCLUDED IN THE BALANCE SHEETS[3]		**29,596**	**131,368**			**49,079**	**33,912**	
TOTAL SECURITIES COLLATERAL RECEIVED/POSTED[5]		**23,586**	**189,564**			**52,579**	**26,690**	
NET AMOUNT		**6,010**	**(58,196)**			**(3,500)**	**7,222**	
NET AMOUNT IN ACCORDANCE WITH ASC 210[6]		**$ 6,010**	**$ 0**			**$ 0**	**$ 7,222**	

[1] *For the years ended June 30, 2020 and 2019, balances represent an interest rate exchange on the University's debt portfolio.*
[2] *GAAP permits the netting of derivative assets and liabilities and the related cash collateral received and paid when a legally enforceable master netting agreement exists between the University and a derivative counterparty.*
[3] *Included within the "Investment portfolio, at fair value" and "Other liabilities associated with the investment portfolio" line items of the* Balance Sheets.
[4] *Included within "Realized and change in unrealized appreciation/(depreciation), net" within the* Statements of Changes in Net Assets.
[5] *Includes securities posted to meet initial margin requirements on exchange traded futures.*
[6] *Excludes any over-collaterized net amounts in accordance with ASC 210.*

External advisors

Investments managed by external advisors include investments in private equity, real estate, natural resources, hedge funds and other externally managed funds. The University generally utilizes the capital account balance provided by the external advisor as a practical expedient to fair value. To evaluate the adequacy of these fair value measurements, the University has assessed factors including, but not limited to, the external advisor's adherence to fair value principles in calculating the capital account balance, the existence of transactions at NAV at the measurement date and the existence or absence of certain restrictions at the measurement date. In addition, the University evaluates these external advisors through ongoing due diligence and operational oversight, which includes an analysis of an advisor's use of and adherence to fair value principles.

The University, as an investor, has commitments to make periodic contributions in future periods to the investments managed by external advisors. The amounts of these expected disbursements as of June 30, 2020 and 2019 are disclosed below (in thousands of dollars):

	As of June 30, 2020			As of June 30, 2019		
	Fair value[1]	Remaining unfunded commitments	Estimated remaining life[2]	Fair value[1,4]	Remaining unfunded commitments[4]	Estimated remaining life[2]
Private equity funds	$ 9,017,706	$ 6,813,583	4 – 10	$ 7,943,838	$ 6,536,799	4 – 10
Real estate funds	3,154,066	1,734,565	4 – 10	3,556,511	1,702,201	4 – 10
Other externally managed funds[3]	3,386,081	2,221,023	2 – 8	3,660,687	2,460,983	2 – 8
TOTAL	**$ 15,557,853**	**$ 10,769,171**		**$ 15,161,036**	**$ 10,699,983**	

[1] *Represents the fair value of the funded portion of investments with remaining unfunded commitments.*
[2] *The estimated remaining lives of these funds, expressed in years, are forward-looking projections based on the University's estimates and could vary significantly depending on the investment decisions of external managers, changes in the University's investment portfolio, and other circumstances.*
[3] *Other externally managed funds primarily includes exposure to hedge funds and natural resources.*
[4] *Certain prior year amounts have been reclassified to conform to current year presentation.*

Investments in externally managed funds generally have limited redemption options for investors and, subsequent to final closing, may or may not permit subscriptions by new or existing investors. These entities may also have the ability to impose gates, lockups and other restrictions on an investor's ability to readily redeem out of their investment interest in the fund.

Direct Investments

Direct investments in natural resources and private equity are primarily valued using a combination of independent appraisals and/or one or more industry standard valuation techniques (e.g., income approach, market approach, or cost approach). The income approach is primarily based on the investment's anticipated future income using one of two principal methods: the discounted cash flow method or the capitalization method. Inputs and estimates developed and utilized with these techniques may be subjective, unobservable, and require judgment regarding significant matters such as estimating the amount and timing of future cash flows, forward pricing assumptions and the selection of discount and capitalization rates that appropriately reflect market and credit risks. The market approach derives investment value through comparison to recent and relevant market transactions with similar investment characteristics. The cost approach is utilized when the cost of the investment is determined to be the best representation of fair value. This method is typically used for newly purchased or undeveloped assets. When applicable, the University examines market data and collaborates closely with independent appraisers to arrive at the best estimation of fair value for each respective asset. The HMC Board of Directors discusses the valuation process and results with HMC management, and makes determinations on significant matters impacting valuation that may arise from time to time.

The following table presents the ranges of significant unobservable inputs used to value the University's Level 3 assets. While the inputs described below represent the range of inputs utilized as of the measurement date, these inputs may change over time, which may have a material effect on the valuation of these types of investments in the future.

	As of June 30, 2020			As of June 30, 2019		
Significant unobservable input by asset class[1,3,4]	Level 3 investments subject to fair value (in thousands of dollars)[2]	Range of inputs utilized in valuation model	Weighted average of inputs utilized in valuation model	Level 3 investments subject to fair value (in thousands of dollars)[2]	Range of inputs utilized in valuation model	Weighted average of inputs utilized in valuation model
Natural resources:	$ 469,811			$ 1,878,205		
Income approach discount rate		6.0% – 16.0%	10.8%		6.0% – 16.0%	10.2%
Price per planted hectare		$1,073 – $156,351	$36,646		$1,073 – $164,937	$43,431
Price per gross hectare		$168 – $57,530	$10,393		$168 – $57,422	$15,231
Discount for lack of marketability		2.0% – 20.0%	16.7%		2.0% – 20.0%	9.0%
High yield:	264,027			233,681		
Shadow rating discount rate		6.8% – 15.8%	8.6%		6.8% – 8.9%	8.0%
Collateral coverage market risk factor		100%	100%		100%	100%
EBITDA multiple		9.0x – 19.5x	13.3x		11.3x – 13.5x	11.9x
Real estate:	22,868			32,661		
Income approach discount rate		14.5%	14.5%		11.5% – 13.5%	12.5%
Income approach growth rate		3.0%	3.0%		3.0%	3.0%
Discount for lack of marketability		15.0%	15.0%		15.0%	15.0%
Private equity:	150,294			131,329		
Income approach discount rate		6.0% – 15.0%	14.0%		6.0% – 15.0%	12.4%
EBITDA multiple		8.7x	8.7x		8.7x	8.7x
Book value multiplier					0.6x	0.6x
Other liabilities subject to fair value	(246,410)			(288,372)		
Loan to value		5.0% – 43.5%	16.8%		8.7% – 43.5%	22.4%
Market interest rate		3.5% – 6.5%	3.9%		2.5% – 10.5%	5.2%
NET AMOUNT	**$ 660,590**			**$ 1,987,504**		

1 *The fair value of investments may be determined using multiple valuation techniques.*
2 *Included within Level 3 investments is $1,590,548 and $606,844 as of June 30, 2020 and 2019, respectively, which were valued using other inputs including, but not limited to, single source broker quotations, third party pricing, and prior transactions.*
3 *The range of inputs encompasses a variety of investment types within each asset class.*
4 *Certain prior year amounts have been reclassified to conform to current year presentation.*

4. RECEIVABLES

The major components of receivables, net of reserves for doubtful accounts of $13.9 million and $12.2 million as of June 30, 2020 and 2019, respectively, were as follows (in thousands of dollars):

	2020	2019
Federal sponsored support	**$ 61,939**	$ 71,425
Publications	**48,085**	62,872
Executive education	**50,155**	62,842
Tuition and fees	**22,108**	19,146
Non-federal sponsored support	**9,950**	10,821
Gift receipts	**9,263**	4,430
Other	**61,231**	64,785
TOTAL RECEIVABLES, NET	**$ 262,731**	**$ 296,321**

5. NOTES RECEIVABLE

Notes receivable are recorded initially at face value plus accrued interest, which approximates fair value. Notes receivable, and related allowance for doubtful accounts, were as follows (in thousands of dollars):

	2020			2019		
	Receivable	Allowance	Net	Receivable	Allowance	Net
Student Loans:						
Government revolving	$ 39,382	$ 999	**$ 38,383**	$ 49,213	$ 1,266	**$ 47,947**
Institutional	83,000	2,284	**80,716**	86,467	2,481	**83,986**
Federally insured	—	—	—	344	159	**185**
Total student loans	122,382	3,283	**119,099**	136,024	3,906	**132,118**
Faculty and staff loans	244,642	179	**244,463**	234,148	179	**233,969**
Other loans	39,257	30,585	**8,672**	29,475	21,939	**7,536**
TOTAL	**$ 406,281**	**$ 34,047**	**$ 372,234**	**$ 399,647**	**$ 26,024**	**$ 373,623**

Government revolving loans are funded principally with federal advances to the University under the Perkins Loan, the Health Professions Student Loan (HPSL) and Loans for Disadvantaged Students in Health Professions (LDS) Programs. These advances totaled $44.7 million and $66.7 million as of June 30, 2020 and 2019, respectively, and are classified as liabilities in the *Balance Sheets*. During fiscal year 2018, the Perkins Loan Program ended and as a result the University began making required repayments to the government. In fiscal year 2019, an annual repayment was not due while the Department of Education calculated the reimbursement owed to the University for public service cancellations since fiscal year 2010, as required by law. The University made a catch up payment of $22 million in fiscal year 2020 for both years. Interest earned on the revolving and institutional loan programs is reinvested to support additional loans. The repayment and interest rate terms of the institutional loans vary considerably.

Faculty and staff notes receivable primarily consists of mortgage and educational loans. Mortgages include shared appreciation loans, loans that bear interest at the applicable federal rate and interest-free loans. In addition, certain mortgages that bear interest at the current market rate or applicable federal rate may be subsidized for an initial period. The educational loans are primarily zero-interest loans.

The University assesses the adequacy of the allowance for doubtful accounts by evaluating the loan portfolio, including such factors as the differing economic risks associated with each loan category, the financial condition of specific borrowers, the economic environment in which the borrowers operate, the level of delinquent loans, the value of any collateral, and, where applicable, the existence of any guarantees or indemnifications. In addition to these factors, the University reviews the aging of the loans receivable and the default rate in comparison to prior years. The allowance is adjusted based on these reviews. The University considers the allowance at June 30, 2020 and 2019 to be reasonable and adequate to absorb potential credit losses inherent in the loan portfolio.

6. PLEDGES RECEIVABLE

Unconditional promises to donate to the University in the future are initially recorded at fair value (pledge net of discount) and subsequently amortized over the expected payment period, net of an allowance for uncollectible pledges. The University's indicative 1- to 5-year taxable unsecured borrowing rate is used to discount pledges receivable at the end of the fiscal year they are received. Discounts of $100.2 million and $149.6 million for the years ended June 30, 2020 and 2019, respectively, were calculated using rates ranging from 0.77% to 3.10%.

Pledges receivable included in the financial statements as of June 30, 2020 and 2019 are expected to be realized as follows (in thousands of dollars):

	2020	2019
Within one year	**$ 354,025**	$ 408,858
Between one and five years	**1,416,099**	1,635,428
More than five years	**880,909**	992,743
Less: discount and allowance for uncollectible pledges	**(247,858)**	(271,202)
TOTAL PLEDGES RECEIVABLE, NET	**$ 2,403,175**	**$ 2,765,827**

Pledges receivable as of June 30, 2020 and 2019 have been designated for the following purposes (in thousands of dollars):

	2020	2019
General Operating Account balances:		
Gifts for current use	**$ 624,440**	$ 744,871
Non-federal sponsored awards	**193,641**	215,972
Facilities and loan funds	**265,741**	294,180
Total General Operating Account balances	**1,083,822**	**1,255,023**
Endowment	**1,319,353**	1,510,804
TOTAL PLEDGES RECEIVABLE, NET	**$ 2,403,175**	**$ 2,765,827**

Because of uncertainties with regard to realizability and valuation, bequest intentions and other conditional promises are only recognized as assets if and when the specified conditions are met. Non-bequest conditional pledges totaled $56.7 million and $49.8 million as of June 30, 2020 and 2019, respectively.

7. FIXED ASSETS

Fixed assets are reported at cost or, if a gift, at fair value as of the date of the gift, net of accumulated depreciation. Depreciation is computed using the straight-line method over the estimated useful lives of the assets.

The major categories of fixed assets as of June 30, 2020 and 2019 are summarized as follows (in thousands of dollars):

	2020	2019	Estimated useful life (in years)
Research facilities	**$ 2,494,333**	$ 2,432,190	*
Classroom and office facilities	**2,401,659**	2,291,410	35
Housing facilities	**2,264,147**	2,241,939	35
Other facilities	**455,847**	448,844	35
Service facilities	**804,215**	778,149	35
Libraries	**509,095**	479,741	35
Museums and assembly facilities	**979,825**	959,455	35
Athletic facilities	**246,291**	235,910	35
Land	**1,042,977**	1,023,726	N/A
Construction in progress	**1,401,333**	1,297,194	N/A
Equipment	**1,367,264**	1,281,259	**
SUBTOTAL AT COST	**13,966,986**	**13,469,817**	
Less: accumulated depreciation	**(5,531,731)**	(5,198,106)	
FIXED ASSETS, NET	**$ 8,435,255**	**$ 8,271,711**	

** Estimated useful lives of components range from 10 to 45 years.*
*** Estimated useful lives of equipment range from 3 to 10 years.*

Certain University facilities are subject to restrictions as to use, structural modifications, and ownership transfer. Included in the fixed asset balances are restricted facilities with a net book value of $304.6 million and $303.0 million as of June 30, 2020 and 2019, respectively.

The costs of research facilities are separated into the shell, roof, finishes, fixed equipment, and services. These components are separately depreciated.

Equipment includes general and scientific equipment, computers, software, furniture, and vehicles.

The University has asset retirement obligations of $200.7 million and $176.8 million, which are included in "Deferred revenue and other liabilities" in the *Balance Sheets* as of June 30, 2020 and 2019, respectively.

For the period ended June 30, 2020, right of use assets from finance leases of $67.0 million are included in "Fixed assets" and lease liabilities from finance leases of $104.9 million are included in "Deferred revenue and other liabilities" in the *Balance Sheets*.

8. ENDOWMENT AND GENERAL OPERATING ACCOUNT NET ASSETS

The University's net assets consisted of the following as of June 30, 2020 and 2019 (in thousands of dollars):

	2020			2019		
	Without donor restrictions	With donor restrictions	Total	Without donor restrictions	With donor restrictions	Total
NATURE OF SPECIFIC NET ASSETS						
Perpetual endowment funds		$ 8,178,308	**$ 8,178,308**		$ 7,848,495	**$ 7,848,495**
Endowment funds and appreciation, subject to distribution policy and appropriation		24,628,858	**24,628,858**		24,092,097	**24,092,097**
Endowment funds without restriction, board designated and subject to distribution policy	$ 7,374,810		**7,374,810**	$ 7,091,584		**7,091,584**
Pledge balances		1,319,353	**1,319,353**		1,510,804	**1,510,804**
Interests in trusts held by others		393,051	**393,051**		386,720	**386,720**
TOTAL ENDOWMENT	**7,374,810**	**34,519,570**	**41,894,380**	**7,091,584**	**33,838,116**	**40,929,700**
Operating	4,922,307		**4,922,307**	4,890,118		4,890,118
Unexpended contributions and endowment distributions		2,655,577	**2,655,577**		2,784,170	2,784,170
Student loan funds		99,259	**99,259**		99,129	99,129
TOTAL GENERAL OPERATING ACCOUNT	**4,922,307**	**2,754,836**	**7,677,143**	**4,890,118**	**2,883,299**	**7,773,417**
Split interest agreements *(Note 9)*		**598,193**	**598,193**		**573,369**	**573,369**
TOTAL NET ASSETS	**$ 12,297,117**	**$ 37,872,599**	**$ 50,169,716**	**$ 11,981,702**	**$ 37,294,784**	**$ 49,276,486**

Endowment

The University's endowment consists of 14,033 separate funds established over many years for a wide variety of purposes. Endowment fund balances are classified and reported in accordance with donor specifications and state law. The endowment includes both donor-restricted endowment funds and funds functioning as endowment which are not subject to donor-imposed restrictions, however decisions to spend their principal require the approval of the Corporation and therefore are classified as Board-designated endowment funds. The majority of the endowment is invested in the GIA *(Note 3)*.

The University is also the beneficiary of certain irrevocable trusts held and administered by others. The estimated fair values of trust assets, which include the present values of expected future cash flows from outside trusts and the fair value of the underlying assets of perpetual trusts, are recognized as assets and increases in net assets when the required trust documentation is provided to the University.

The fair values of these trusts are provided by the external trustees and are adjusted annually by the University. These are included as Level 3 investments in the fair value hierarchy table in *Note 3*.

The University's endowment distribution policies are designed to preserve the value of the endowment in real terms (after inflation) and generate a predictable stream of available income. Each fall, the Corporation approves the endowment distribution for the following fiscal year. Distribution from an underwater endowment fund (a fund below its historic dollar value) could continue in limited and defined circumstances under the University's endowment distribution policy. To the extent that the fair value of a donor restricted endowment fund falls below its historic dollar value it would be reported as a reduction of net assets with donor restrictions.

At June 30, 2020 and 2019, funds in a deficit position were reported in net assets with donor restrictions and are comprised as follows (in thousands):

	2020	2019
Fair value of underwater endowment funds	**$ 20,355**	$ 27,240
Historic dollar value	**22,605**	32,672
TOTAL DEFICIT OF UNDERWATER ENDOWMENT FUNDS	**$ (2,250)**	**$ (5,432)**

The endowment distribution is based in part on presumptive guidance from a formula that is intended to provide budgetary stability by smoothing the impact of annual investment gains and losses. The formula's inputs reflect expectations about long-term returns and inflation rates. For fiscal year 2020, the endowment distribution approved by the Corporation (prior to decapitalizations) was equal to 5.2% of the fair value of the endowment invested in the GIA as of the beginning of the fiscal year. The total endowment distribution made available for operations was $2.0 billion and $1.9 billion in fiscal year 2020 and 2019, respectively.

Each year the Corporation also approves certain decapitalizations from the endowment to support strategic, mission-critical activities or objectives that are typically one-time or time-limited and therefore, are excluded from net operating surplus. These decapitalizations totaled $35.7 million and $32.2 million in fiscal year 2020 and 2019, respectively. These additional decapitalizations, in combination with the endowment distribution, resulted in an aggregate payout rate of 5.2% and 5.1% in fiscal year 2020 and 2019, respectively.

General operating account

The GOA consists of the general or current funds of the University as well as the assets and liabilities related to student and faculty loans and facilities. The GOA accepts, manages, and pays interest on deposits made by University departments; invests surplus working capital; makes loans; and arranges external financing for major capital projects. It is used to manage, control, and execute all University financial transactions, except for those related to investment activities conducted by HMC.

9. SPLIT INTEREST AGREEMENTS

Under split interest agreements, donors enter into trust or other arrangements with the University in which the University receives benefits that are shared with other beneficiaries and institutions. Split interest agreement (SIA) investment assets are invested primarily in the GIA and publicly-traded securities, a small segment is managed by an external advisor, and all are recorded in the "Investment portfolio, at fair value" in the University's *Balance Sheets*. Additional disclosures are included in *Note 3*. Associated liabilities are recorded at the present value of estimated future payments due to beneficiaries and other institutions. These liabilities are calculated using the University's current taxable unsecured borrowing rate of 0.8% and 2.1% as of June 30, 2020 and 2019, respectively. All split interest agreement net assets and the respective activity are reported within net assets with donor restrictions. Upon termination of a split interest agreement, the net assets are transferred to the GOA or endowment accordingly.

The changes in split interest agreement net assets for fiscal years 2020 and 2019 were as follows (in thousands of dollars):

	2020	2019
Investment return:		
Investment income	**$ 13,101**	$ 13,807
Realized and change in unrealized appreciation, net	**37,420**	45,694
Total investment return	**50,521**	59,501
Gifts *(Note 14)*[1]	**9,709**	8,437
Payments to annuitants	**(66,351)**	(65,770)
Transfers to endowment	**(12,136)**	(15,213)
Transfers between SIA and the GOA	**(11,916)**	(13,886)
Change in liabilities and other adjustments	**54,997**	41,149
NET CHANGE DURING THE YEAR	**24,824**	**14,218**
Total split interest agreement net assets, beginning of year	**573,369**	559,151
TOTAL SPLIT INTEREST AGREEMENT NET ASSETS, END OF YEAR	**$ 598,193**	**$ 573,369**

[1] *Shown at net present value. The undiscounted value of these gifts was $27,237 and $18,508 for the years ended June 30, 2020 and 2019, respectively.*

Split interest agreement net assets as of June 30, 2020 and 2019 consisted of the following (in thousands of dollars):

	2020	2019
Split interest agreement investments *(Note 3)*		
Charitable remainder trusts	**$ 936,417**	$ 930,742
Charitable lead trusts	**94,401**	125,040
Charitable gift annuities	**255,696**	249,917
Pooled income funds	**131,263**	127,414
Total split interest agreement investments[1]	**1,417,777**	**1,433,113**
Liabilities due under split interest agreements:		
Amounts due to beneficiaries	**(751,217)**	(792,558)
Amounts due to other institutions	**(68,367)**	(67,186)
Total liabilities due under split interest agreements	**(819,584)**	**(859,744)**
TOTAL SPLIT INTEREST AGREEMENT NET ASSETS, END OF YEAR	**$ 598,193**	**$ 573,369**

[1] *For the year ended June 30, 2020, $803,490 of SIA investments are held in the pooled general investment account and $614,287 of SIA investments are held in the other investments outside the general investment account. For the year ended June 30, 2019, $780,737 of SIA investments are held in the pooled general investment account and $652,376 of SIA investments are held in the other investments outside the general investment account. Refer to* Note 3.

10. BONDS AND NOTES PAYABLE

Bonds and notes payable as of June 30, 2020 and 2019 were as follows (in thousands of dollars):

	Fiscal year of issue	Fiscal Year of final maturity[1]	Effective rate[2]	Outstanding principal 2020[3]	Outstanding principal 2019[3]
TAX-EXEMPT BONDS AND COMMERCIAL PAPER:					
Variable-rate demand bonds and commercial paper:					
Series R – daily	2000-2006	2033	0.9%	$ 131,200	$ 131,200
Series Y – weekly	2000	2036	1.2%	117,905	117,905
Commercial paper	2020	—	1.3%		350,000
Total variable-rate bonds and commercial paper			1.2%	249,105	599,105
Fixed-rate bonds:					
Series N	1992	2020	6.3%		80,000
Series 2010A	2010	2022	4.8%	49,590	49,590
Series 2010B	2011	2024	4.9%	97,740	110,235
Series 2016A	2017	2041	3.9%	1,513,780	1,539,720
Series 2020A	2020	2031	2.6%	346,680	
Total fixed-rate bonds			4.0%	2,007,790	1,779,545
TOTAL TAX-EXEMPT BONDS AND COMMERCIAL PAPER			**3.4%**	**2,256,895**	**2,378,650**
TAXABLE BONDS AND COMMERCIAL PAPER					
Fixed-rate bonds:					
Series 2008A	2008	2039	5.6%	243,000	243,000
Series 2008D	2009	2039	6.5%	500,000	500,000
Series 2010C	2011	2041	4.9%	300,000	300,000
Series 2013A	2013	2038	3.4%	402,000	402,000
Series 2016B	2017	2057	3.3%	1,000,000	1,000,000
Series 2020B	2020	2051	2.5%	500,000	
Total fixed-rate bonds			4.3%	2,945,000	2,445,000
TOTAL TAXABLE BONDS AND COMMERCIAL PAPER			**4.3%**	**2,945,000**	**2,445,000**
Notes payable	Various	Various	Various	87,841	87,405
Unamortized bond issuance costs and original issuance premium/discount, net				374,943	302,294
TOTAL BONDS AND NOTES PAYABLE			**3.9%**	**$ 5,664,679**	**$ 5,213,349**

[1] *The weighted average maturity of the portfolio on June 30, 2020 was 18.8 years.*
[2] *One-year average for variable rate debt. Exclusive of interest rate exchange agreement, which would increase the overall portfolio rate by 0.05% (3.93% vs. 3.88%).*
[3] *Par only—balances exclude original issuance premiums/discounts.*

Interest expense related to bonds and notes payable was $179.5 million and $183.7 million for fiscal 2020 and 2019, respectively. The interest expense in the *Statement of Changes in Net Assets with General Operating Account Detail* includes additional components related to capital leases. Excluding unamortized discounts and premiums, unamortized bond issuance costs, scheduled principal payments are (in thousands of dollars):

Fiscal year	Principal payments
2021	$ 88,185
2022	109,619
2023	54,890
2024	101,853
2025	41,441
Thereafter	4,893,748
TOTAL PRINCIPAL PAYMENTS	**$ 5,289,736**

In fiscal 2020, the University issued $346.7 million of tax-exempt fixed-rate Series 2020A Bonds and $500.0 million of taxable fixed-rate Series 2020B Bonds. Proceeds from the Series 2020A issue were used to refinance the University's $450 million outstanding Series EE tax-exempt commercial paper. Proceeds from the Series 2020B issue were used to fund institutional liquidity and capital spending. In connection with the issuance of Series 2020A and Series 2020B, the University's AAA/Aaa credit ratings were affirmed by Standard & Poor's Global Ratings and Moody's Investors Service, respectively.

The University has one unsecured, revolving credit facility totaling $1.5 billion, which expires in March 2022. There was no outstanding drawn balance on the credit facility at June 30, 2020.

In February 2020, the University obtained reauthorization of its $1 billion tax-exempt commercial paper program. The University has a taxable commercial paper program available totaling $2 billion. There was no outstanding drawn balance on either commercial paper program at June 30, 2020.

As of June 30, 2020, the University had $249.1 million of variable-rate demand bonds outstanding (excluding commercial paper) with either a daily or weekly interest rate reset, as noted in the bonds and notes payable table on page 33. In the event that the University receives notice of any optional tender on its variable-rate demand bonds, or if the bonds become subject to mandatory tender, the purchase price of the bonds will be paid from the remarketing of such bonds. However, if the remarketing proceeds are insufficient, the University will have a general obligation to purchase the bonds tendered with cash on hand.

Interest rate exchange agreements

In fiscal 2020, the University had in place one interest rate exchange agreement, used to manage the interest cost and risk associated with a portion of its outstanding debt.

The fair value of the interest rate exchange agreement was $(44.2) million and $(27.4) million as of June 30, 2020 and 2019, respectively and is recorded in "Securities lending and other liabilities associated with the investment portfolio" on the University's *Balance Sheets*.

11. EMPLOYEE BENEFITS

The University offers current employees a choice of health plans, a dental plan, short-term and long-term disability plans, life insurance, tuition assistance, and a variety of other benefits such as subsidized passes for public transportation and for Harvard athletic facilities. In addition, the University has retirement plans covering substantially all employees.

The University uses a measurement date of June 30 for its pension and postretirement health plans.

457(b) deferred compensation plan

The University offers a non-qualified deferred compensation plan under Internal Revenue Code 457(b) to a select group of employees. There is no University contribution related to the plan. The University has recorded both an asset and a liability related to the plan of $163.6 million as of June 30, 2020 and $151.2 million as of June 30, 2019; the assets are included in "Prepayments and deferred charges" and the liabilities are included in "Deferred revenue and other liabilities" on the University's *Balance Sheets*.

Pension benefits

All eligible faculty members and staff are covered by retirement programs that include a defined benefit component, a defined contribution component, or a combination of the two.

In accordance with the Employee Retirement Income Security Act (ERISA) requirements, the University has established a trust to hold plan assets for its defined benefit pension plans. The fair value of the trust's assets was $959.4 million and $863.5 million as of June 30, 2020 and 2019, respectively. During fiscal years 2020 and 2019, the University made cash contributions to the defined benefit pension plan of $53.5 million and $14.9 million, respectively. The University recorded expenses for its defined contribution plans of $153.4 million and $148.5 million for fiscal year 2020 and 2019, respectively.

Postretirement health benefits

The University provides postretirement health coverage and life insurance to substantially all of its employees. As of June 30, 2020, the University had internally designated and invested $779.8 million in the GIA to fund the postretirement health benefit accrued liability of $955.6 million. As of June 30, 2019, the University had internally designated and invested $727.9 million to fund the postretirement health benefit accrued liability of $854.6 million.

The following table sets forth the pension and postretirement plans' funded status that is reported in the *Balance Sheets* as of June 30, 2020 and 2019 (in thousands of dollars):

	Pension benefits		Postretirement health benefits	
	2020	2019	2020	2019
Change in projected benefit obligation:				
Projected benefit obligation, beginning of year	**$ 1,129,397**	$ 1,004,962	**$ 854,639**	$ 806,714
Service cost	**11,926**	9,675	**31,880**	30,474
Interest cost	**40,625**	42,455	**31,529**	34,719
Plan participants' contributions			**4,222**	3,761
Plan change			**(10,339)**	71
Gross benefits paid	**(45,090)**	(51,817)	**(21,479)**	(28,509)
Actuarial (gain)/loss	**42,471**	124,122	**65,119**	7,409
Special termination benefits[3]	**40,765**			
PROJECTED BENEFIT OBLIGATION, END OF YEAR[1]	**1,220,094**	**1,129,397**	**955,571**	**854,639**
Change in plan assets:				
Fair value of plan assets, beginning of year	**863,492**	828,124		
Actual return on plan assets	**87,479**	72,320		
Employer contributions	**53,533**	14,865	**17,257**	24,748
Plan participants' contributions			**4,222**	3,761
Gross benefits paid	**(45,090)**	(51,817)	**(21,479)**	(28,509)
FAIR VALUE OF PLAN ASSETS, END OF YEAR	**959,414**	**863,492**	**0**	**0**
UNFUNDED STATUS[2]	**$ (260,680)**	**$ (265,905)**	**$ (955,571)**	**$ (854,639)**

1 *Measurement of the University's pension obligation including assumed salary increases (required by GAAP).*
2 *These amounts totaling $1,216,251 as of June 30, 2020 and $1,120,544 as of June 30, 2019 are included in the "Accrued Retirement Obligations" line in the* Balance Sheets.
3 *Represents costs associated with a voluntary early retirement program offered to plan participants during fiscal 2020.*

The accumulated pension benefit obligation (ABO) is a measurement of the University's pension benefit obligation, based on past and present compensation levels and does not include assumed salary increases. The ABO was $1,011.7 million and $968.9 million at June 30, 2020 and 2019, respectively. The funded status disclosed above has been prepared in accordance with pension accounting rules. When measured on an IRS funding basis, which informs the University's required cash contribution amount, the plan was overfunded at January 1, 2020.

Net periodic benefit cost

Components of net periodic benefit cost and other amounts recognized in the *Statements of Changes in Net Assets with General Operating Account Detail* are summarized as follows for the years ended June 30, 2020 and 2019 (in thousands of dollars):

	Pension benefits		Postretirement health benefits	
	2020	2019	2020	2019
Components of net periodic benefit cost:				
Operating				
Service cost	**$ 11,926**	$ 9,675	**$ 31,880**	$ 30,474
Special termination benefits	**40,765**			
Total operating activity	**52,691**	9,675	**31,880**	30,474
Non-operating				
Interest cost	**40,625**	42,455	**31,529**	34,719
Expected return on plan assets	**(44,856)**	(50,469)		
Amortization of:				
Actuarial loss/(gain)	**15,682**	3,320	**(11,189)**	(13,469)
Prior service cost/(credit)	**288**	288	**(7,126)**	(7,132)
Total non-operating activity[1]	**11,739**	(4,406)	**13,214**	14,118
Total net periodic benefit cost	**64,430**	**5,269**	**45,094**	**44,592**
Other amounts recognized in non-operating activity in unrestricted net assets:				
Current year net actuarial loss/(gain)	**(151)**	102,271	**65,119**	7,409
Current year net prior service cost			**(10,339)**	71
Amortization of:				
Prior service (cost)/credit	**(288)**	(288)	**7,126**	7,132
Actuarial (loss)/gain	**(15,682)**	(3,320)	**11,189**	13,469
Total other amounts recognized in non-operating activity[1]	**(16,121)**	**98,663**	**73,095**	**28,081**
TOTAL RECOGNIZED IN *STATEMENTS OF CHANGES IN NET ASSETS WITH GENERAL OPERATING ACCOUNT DETAIL*	**$ 48,309**	**$ 103,932**	**$ 118,189**	**$ 72,673**

[1] *These amounts totaling $81,927 in fiscal year 2020 and $136,456 in fiscal year 2019 include gains and losses and other changes in the actuarially determined benefit obligations arising in the current period but that have not yet been reflected within net periodic benefit cost/(income) and are included in the "Change in Retirement Obligations" line in the* Statements of Changes in Net Assets with General Operating Account Detail.

Cumulative amounts recognized as non-operating changes in net assets without donor restrictions are summarized as follows for the years ended June 30, 2020 and 2019 (in thousands of dollars):

	Pension benefits		Postretirement health benefits	
	2020	2019	2020	2019
Net actuarial loss/(gain)	**$ 180,814**	$ 196,647	**$ (168,947)**	$ (245,254)
Prior service cost/(credit)	**894**	1,181	**(49,599)**	(46,386)
CUMULATIVE AMOUNTS RECOGNIZED IN UNRESTRICTED NET ASSETS	**$ 181,708**	**$ 197,828**	**$ (218,546)**	**$ (291,640)**

The estimated net actuarial loss and prior service cost for the defined benefit plan that will be amortized from net assets without donor restrictions into net periodic benefit (income)/cost in fiscal year 2021 are $16.2 million and $0.3 million, respectively. The estimated net actuarial gain and estimated prior service credit for the postretirement health benefit that will be amortized from net assets without donor restrictions into net periodic benefit (income)/cost in fiscal year 2021 are ($7.9) million and ($5.1) million, respectively.

Other assumptions and health care cost trend rates used in determining the year end obligation as well as the net periodic benefit (income)/cost of the pension and postretirement health plans are summarized as follows for fiscal years 2020 and 2019:

	Pension benefits		Postretirement health benefits	
	2020	2019	2020	2019
Weighted-average assumptions used to determine benefit obligation as of June 30:				
Discount rate	**3.15%**	3.65%	**3.35%**	3.60%
Compensation increase trend:				
Average rate	**3.50%**	3.50%	**3.50%**	3.50%
Cash balance (or similar formula) interest crediting rate	**5.25%**	5.25%	N/A	N/A
Pension increases for in-payment benefits increase trend:				
Average rate	N/A	0.15%	N/A	N/A
Initial rate	**0.00%**	N/A	N/A	N/A
Ultimate rate	**0.25%**	N/A	N/A	N/A
Year of ultimate	**2025**	N/A	N/A	N/A
Health care cost trend rate:				
Current rate	N/A	N/A	**6.50%**	5.00%
Ultimate rate	N/A	N/A	**4.75%**	4.75%
Year of ultimate	N/A	N/A	**2025**	2023
Weighted-average assumptions used to determine net periodic benefit (income)/cost:				
Discount rate	**3.65%**	4.30%	**3.60%**	4.20%
Expected long-term rate of return on plan assets	**5.50%**	6.50%	N/A	N/A
Compensation increase trend:				
Average rate	**3.50%**	N/A	**3.50%**	N/A
Initial rate	N/A	3.00%	N/A	3.00%
Ultimate rate	N/A	4.00%	N/A	4.00%
Year of ultimate	N/A	2021	N/A	2021
Pension increases for in-payment benefits increase trend:				
Average rate	**0.15%**	0.15%	N/A	N/A
Health care cost trend rate:				
Initial rate	N/A	N/A	**5.00%**	5.00%
Ultimate rate	N/A	N/A	**4.75%**	4.75%
Year of ultimate	N/A	N/A	**2023**	2023

As an indicator of sensitivity, a one percentage point change in assumed health care cost trend rate would affect 2020 as shown in the following table (in thousands of dollars):

	1% point increase	1% point decrease
Effect on 2020 postretirement health benefits service and interest cost	$ 17,082	$ (11,066)
Effect on postretirement health benefits obligation as of June 30, 2020	188,143	(217,621)

The expected return on pension plan assets is determined by utilizing an independent advisor's capital markets model, which takes into account the expected real return, before inflation, for each of the pension portfolio's asset classes, as well as the correlation of any one asset class to every other asset class. This model calculates the real returns and correlations and derives an expected real return for the entire portfolio, given the percentage weighting allocated to each asset class. After calculating the expected real return, an assessment is made to accommodate the expected inflation rate for the forthcoming period. The final expected return on assets is the aggregate of the expected real return plus the expected inflation rate.

Plan assets

The actual asset allocation of the investment portfolio for the pension plan at June 30, 2020 and 2019, along with target allocations for June 30, 2021, is as follows:

	2021 Target	June 30, 2020	June 30, 2019
Asset allocation by category for pension plan:			
Equity securities	30-55%	36.2%	38.7%
Fixed income securities	40-60%	59.0	47.1
Real estate	0-5	0.0	0.0
Hedge funds	0-5	3.3	12.5
Cash	0-5	1.5	1.7
TOTAL OF ASSET ALLOCATION CATEGORIES		**100.0%**	**100.0%**

The University's investment strategy for the pension portfolio is to manage the assets across a broad and diversified range of investment categories, both domestic and international. The objective is to achieve a risk-adjusted return that is in line with the long-term obligations that the University has to the pension plan beneficiaries. During fiscal year 2020, the University increased its allocation to fixed income securities to manage the interest rate volatility associated with its pension obligations. The University expects to keep this strategy in future years. The investment program is also managed to comply with all ERISA regulations.

The following is a summary of the levels within the fair value hierarchy for the pension plan assets subject to fair value measurement as of June 30, 2020 and 2019 (in thousands of dollars):

	2020					2019
	Level 1	Level 2	Level 3	NAV as practical expedient	Total	Total
PLAN ASSETS:						
Cash and short-term investments	$ 25,541				**$ 25,541**	$ 26,135
Domestic equity				$ 182,940	**182,940**	163,500
Foreign equity	70,147			29,771	**99,918**	107,557
Domestic fixed income	10,602	$ 244,847		286,732	**542,181**	368,338
Foreign fixed income		16,213			**16,213**	22,555
Emerging market equity and debt	31,797			25,787	**57,584**	61,785
Hedge funds				30,700	**30,700**	108,398
Due from brokers	67				**67**	4
Buy-sell backs					**0**	33,343
Private equity				2,184	**2,184**	4,234
Real estate					**0**	27
PLAN ASSETS SUBJECT TO FAIR VALUE LEVELING	**$ 138,154**	**$ 261,060**	**$ 0**	**$ 558,114**	**$ 957,328**	**$ 895,876**
Other assets not subject to fair value					**2,086**	1,085
TOTAL PLAN ASSETS					**$ 959,414**	**$ 896,961**
PLAN LIABILITIES:						
Due to brokers					**$ 0**	$ 49
Forward sale commitment					**0**	19,806
PLAN LIABILITIES SUBJECT TO FAIR VALUE LEVELING	**$ 0**	**$ 0**	**$ 0**		**$ 0**	**$ 19,855**
Other liabilities not subject to fair value						13,615
TOTAL PLAN LIABILITIES					**$ 0**	**$ 33,470**

Expected future benefit payments

Employer contributions of $20.0 million are expected for fiscal year 2021 to fund the pension benefit plan.

The following table summarizes expected benefit payments and subsidies for pension and other postretirement health benefits for the University (in thousands of dollars):

	Expected benefit payments	
Fiscal year	Pension	Postretirement health
2021	$ 56,533	$ 23,318
2022	58,473	25,648
2023	60,584	27,891
2024	62,708	30,142
2025	64,608	32,337
Thereafter	347,213	195,546

12. STUDENT FINANCIAL AID

Financial aid granted to students in fiscal 2020 and 2019 is summarized as follows (in thousands of dollars):

	2020	2019
Scholarships and other student awards:		
Scholarships applied to student income[1]	**$ 480,989**	$ 457,369
Scholarships and other student awards paid directly to students	**163,618**	155,874
Total scholarships and other student awards	**644,607**	**613,243**
Student employment	**81,922**	81,287
Student loans	**14,765**	14,639
Agency financial aid[2]	**19,839**	20,326
TOTAL STUDENT FINANCIAL AID	**$ 761,133**	**$ 729,495**

[1] *Includes $202,221 and $192,712 in fiscal 2020 and 2019, respectively, of undergraduate scholarships applied to student income.*
[2] *Represents aid from sponsors for which the University acts as an agent for the recipient.*

13. SPONSORED SUPPORT

Total expenditures funded by US government sponsors or by institutions that subcontract federally-sponsored projects to the University were $616.2 million and $630.8 million in fiscal year 2020 and 2019, respectively. The University's principal source of federally-sponsored funds is the Department of Health and Human Services. The University also has many non-federal sources of sponsored awards and grants, including corporations, foundations, state and local governments, foreign governments, and research institutes.

Sponsored grants and contracts normally provide for the recovery of direct and indirect costs. Recovery of related indirect costs is generally recorded at fixed or predetermined rates negotiated with the federal government and other sponsors. Predetermined federal indirect cost rates have been established for the University Area and the Medical School (including the School of Dental Medicine) through fiscal year 2024 and for the T.H. Chan School of Public Health through fiscal year 2023. Funds received for federally-sponsored activity are subject to audit.

14. GIFTS

Gifts are classified as net assets with or without restrictions in accordance with donor specifications.

Additionally gifts are categorized by purpose as "Current use", "Non-federal sponsored grants", "Endowment funds", "Split interest agreements", or "Loan funds and facilities".

Gifts received for the year ended June 30, 2020 are as follows (in thousands of dollars):

	2020		
	Gifts received	Donor redesignations/ other changes	Total
Current use	$ 483,673	$ (6,109)	**$ 477,564**
Non-federal sponsored grants	206,394	(3,767)	**202,627**
Endowment funds	463,743	5,460	**469,203**
Split interest agreements[1]	9,709	0	**9,709**
Loan funds and facilities	51,241	207	**51,448**
TOTAL GIFTS	**$ 1,214,760**	**$ (4,209)**	**$ 1,210,551**

[1] *Shown at net present value. The undiscounted value of these gifts was $27,237 for the year ended June 30, 2020.*

Gifts received for the year ended June 30, 2019 are as follows (in thousands of dollars):

	2019		
	Gifts received	Donor redesignations/ other changes	Total
Current use	$ 472,432	$ (319)	**$ 472,113**
Non-federal sponsored grants	197,236	(778)	**196,458**
Endowment funds	614,561	(1,274)	**613,287**
Split interest agreements[1]	8,437	0	**8,437**
Loan funds and facilities	85,744	628	**86,372**
TOTAL GIFTS	**$ 1,378,410**	**$ (1,743)**	**$ 1,376,667**

[1] *Shown at net present value. The undiscounted value of these gifts was $18,508 for the year ended June 30, 2019.*

15. OTHER REVENUE

The major components of other revenue for the years ended June 30, 2020 and 2019 were as follows (in thousands of dollars):

	2020	2019
Publications and royalties from copyrights	**$ 239,002**	$ 238,385
Rental and parking[1]	**125,573**	141,375
Services income	**114,410**	136,288
Health and clinic fees	**68,813**	64,780
Royalties from the commercialization of intellectual property[2]	**61,947**	97,568
Sales income	**28,460**	29,888
Interest income	**9,364**	10,961
Other student income	**4,215**	5,112
Other	**47,570**	47,681
TOTAL OTHER REVENUE	**$ 699,354**	**$ 772,038**

[1] *The University is the lessor of space and facilities under operating leases, the income from which is included in rental and parking.*
[2] *Excludes distributions to external parties.*

16. OTHER EXPENSES

The major components of other expenses for the years ended June 30, 2020 and 2019 were as follows (in thousands of dollars):

	2020	2019
Fixed asset impairments	**$ 182,435**	$ 40,741
Subcontract expenses under sponsored projects	**152,916**	158,543
Travel	**71,080**	103,697
Publishing	**45,164**	46,951
Taxes and Fees	**31,597**	43,199
Advertising	**38,022**	38,568
Insurance	**17,176**	18,617
Postage	**14,765**	17,398
Telephone	**12,783**	14,663
Other	**64,959**	75,424
TOTAL OTHER EXPENSES	**$ 630,897**	**$ 557,801**

17. FUNCTIONAL AND NATURAL CLASSIFICATION OF OPERATING EXPENSES

Operating expenses are allocated functionally on a direct basis. Operations and maintenance expenses are allocated based on square footage.

Operating expenses by functional classification for the years ended June 30, 2020 and 2019 were as follows (in thousands of dollars):

	2020				
	Instruction and academic support	Research[1]	Student services and support	Institutional support and auxiliary	Total
Salaries and wages	$ 1,090,715	$ 304,443	$ 148,043	$ 588,310	$ 2,131,511
Employee benefits	287,492	76,702	52,259	204,299	620,752
Services purchased	350,815	86,969	56,722	175,979	670,485
Space and occupancy	103,658	59,117	30,645	170,743	364,163
Depreciation	46,454	117,990	17,351	195,060	376,855
Supplies and Equipment	82,003	49,274	39,975	72,618	243,870
Interest	16,908	30,380	12,503	120,936	180,727
Scholarships and other student awards			163,618		163,618
Other expense	21,252	399,932	25,281	184,432	630,897
TOTAL EXPENSES	**$ 1,999,297**	**$ 1,124,807**	**$ 546,397**	**$ 1,712,377**	**$ 5,382,878**

[1] *The methodology used to allocate expenses for financial statement purposes is different than methodologies used for other purposes, such as governmental surveys.*

	2019				
	Instruction and academic support	Research[1]	Student services and scholarships	Institutional support and auxiliary services	Total
Salaries and wages	$ 1,043,852	$ 294,285	$ 141,588	$ 558,753	**$ 2,038,478**
Employee benefits	268,689	73,583	49,577	163,944	**555,793**
Services purchased	363,109	85,599	60,311	171,672	**680,691**
Space and occupancy	113,374	59,349	30,083	176,484	**379,290**
Depreciation	43,817	119,333	19,985	199,640	**382,775**
Supplies and equipment	84,587	57,428	43,222	85,386	**270,623**
Interest	15,201	33,081	11,890	121,461	**181,633**
Scholarships and other student awards			155,874		**155,874**
Other expense	36,229	414,717	35,030	71,825	**557,801**
TOTAL EXPENSES	**$ 1,968,858**	**$ 1,137,375**	**$ 547,560**	**$ 1,549,165**	**$ 5,202,958**

[1] *The methodology used to allocate expenses for financial statement purposes is different than methodologies used for other purposes, such as governmental surveys.*

18. COMMITMENTS AND CONTINGENCIES

Lease commitments

The University is the lessee of equipment and space under operating (rental) and finance leases. The University determines whether a contract is a lease at inception. Identified leases are subsequently measured, classified, and recognized at lease commencement. The University categorizes leases with contractual terms longer than twelve months as either operating or finance. The University's leases generally have terms that range from one to five years for equipment and one to twenty years for property, with certain leases inclusive of renewal options if they are considered to be reasonably assured at lease commencement. Right of use assets and lease liabilities for operating leases are included in "Operating leases—right of use assets" and "Operating lease liabilities", respectively, in the *Balance Sheets*. Finance lease right of use assets and lease liabilities are included in "Fixed assets" and "Deferred revenue and other liabilities", respectively, in the *Balance Sheets*. Lease assets represent our right to use an underlying asset for the lease term and lease liabilities represent our obligation to make lease payments arising from the lease.

Operating and finance lease right of use assets and associated lease liabilities are recognized based on the present value of future minimum lease payments to be made over the expected lease term, using the collateralized incremental borrowing rate at the commencement date in determining the present value of future payments. Rent expense related to operating leases, including short-term leases and variable lease payments, was $93.9 million and $105.4 million in fiscal year 2020 and 2019, respectively.

Maturity analysis of the annual undiscounted cash flows reconciled to the carrying value of the operating and finance lease liabilities (in thousands of dollars):

	Operating	Finance
2021	$ 82,278	$ 13,248
2022	80,697	13,519
2023	77,596	13,580
2024	73,845	11,195
2025	68,156	11,585
Thereafter	564,388	125,635
TOTAL LEASE PAYMENTS	946,960	188,762
Less: Imputed Interest	(179,361)	(83,875)
PRESENT VALUE OF LEASE LIABILITIES	**$ 767,599**	**$ 104,887**

Weighted-average remaining lease term and discount rate for operating and finance leases were as follows:

	June 30, 2020
Weighted Average Remaining Lease Term	
Operating Leases	16.1 YEARS
Finance Leases	15.2 YEARS
Weighted Average Discount Rate	
Operating Leases	2.5%
Finance Leases	2.4%

The University leases properties to customers under agreements that are classified as operating leases. The University's lessor arrangements are all operating leases and do not include any sales-type or direct finance leases. Property leased to others are included in "Fixed assets" in the *Balance Sheets*. Revenue is recognized to the extent that amounts are determined to be collectible.

Fixed asset-related commitments

The University has various commitments for capital projects involving construction and renovation of certain facilities, real estate acquisitions, and equipment purchases, for which the outstanding commitments as of June 30, 2020 totaled approximately $281.5 million.

Environmental remediation

The University is subject to laws and regulations concerning environmental remediation and has established reserves for potential obligations that management considers to be probable and for which reasonable estimates can be made. These estimates may change substantially depending on new information regarding the nature and extent of contamination, appropriate remediation technologies, and regulatory approvals. Costs of future environmental remediation have been discounted to their net present value. Management is not aware of any existing conditions that it believes are likely to have a material adverse effect on the University's financial position, changes in net assets, or cash flows.

General

The University is a defendant in various legal actions arising from the normal course of its operations. While it is not possible to predict accurately or determine the eventual outcome of such actions, management believes that the outcome of these proceedings will not have a material adverse effect on the University's financial position, changes in net assets, or cash flows.

The University has evaluated subsequent events through October 22, 2020, the date the financial statements were issued. The University has concluded that no material events have occurred that are not accounted for in the accompanying financial statements or disclosed in the accompanying notes.