University of Pennsylvania

Consolidated Financial Statements
June 30, 2020 and 2019

University of Pennsylvania
Index
June 30, 2020 and 2019

Report of Independent Auditors

To the Trustees of the University of Pennsylvania:

We have audited the accompanying consolidated financial statements of the University of Pennsylvania (the "University"), which comprise the consolidated statements of financial position as of June 30, 2020 and 2019, and the related consolidated statements of activities and of cash flows for the years 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 audits. We conducted our audits 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 the University of Pennsylvania as of June 30, 2020 and 2019, and its changes in net assets and its cash flows for the years then ended in accordance with accounting principles generally accepted in the United States of America.

Emphasis of Matter

As discussed in Note 1 to the consolidated financial statements, the University changed the manner in which it accounts for leases. Our opinion is not modified with respect to this matter.

PricewaterhouseCoopers LLP

October 7, 2020

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Consolidated Statements of Financial Position

University of Pennsylvania
(in thousands)

	June 30, 2020	June 30, 2019
Assets		
Cash and cash equivalents	$ 2,117,979	$ 1,375,469
Accounts receivable, net	507,039	398,058
Patient receivables, net	726,081	830,935
Contributions receivable, net	478,150	488,450
Loans receivable, net	63,398	72,362
Other assets	872,383	385,798
Investments, at fair value	16,870,116	16,499,386
Property, plant and equipment, net	8,778,085	8,028,992
Total assets	$ 30,413,231	$ 28,079,450
Liabilities		
Accounts payable	$ 313,884	$ 346,986
Accrued expenses and other liabilities	3,646,811	2,495,808
Deferred income	189,920	192,302
Deposits, advances and agency funds	220,114	190,078
Federal student loan advances	51,822	71,265
Accrued retirement benefits	1,968,251	1,651,685
Debt obligations	4,456,160	3,706,493
Total liabilities	10,846,962	8,654,617
Net assets		
Without donor restrictions	11,366,361	11,392,252
With donor restrictions	8,199,908	8,032,581
Total net assets	19,566,269	19,424,833
Total liabilities and net assets	$ 30,413,231	$ 28,079,450

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

Consolidated Statements of Activities

University of Pennsylvania
for the years ended June 30, 2020 and 2019
(in thousands)

		2020		2019
Without donor restrictions				
Revenue and other support:				
Tuition and fees, net	$	1,176,737	$	1,155,894
Commonwealth appropriations		35,144		34,518
Sponsored programs		1,074,494		1,022,338
Contributions and donor support		210,894		188,805
Investment income		744,911		675,865
Net patient service revenue		6,803,782		6,932,160
Other income		1,203,185		931,484
Independent operations		60,819		77,047
		11,309,966		11,018,111
Expenses:				
Compensation and benefits		6,313,668		5,991,191
Depreciation and amortization		535,003		540,235
Interest on indebtedness		87,760		94,810
Other operating expenses		4,008,255		3,872,702
		10,944,686		10,498,938
Increase in net assets from operations		**365,280**		**519,173**
Nonoperating activities:				
Return on investments, net of amounts classified as operating revenue		(114,855)		103,711
Pension, OPEB and other, net		(374,803)		(426,535)
Contributions and donor support for capital related activities		98,487		42,911
Total nonoperating activities		(391,171)		(279,913)
(Decrease) increase in net assets without donor restrictions		(25,891)		239,260
With donor restrictions				
Contributions		478,490		598,622
Return on investments, net		231,372		464,755
Net assets released from restrictions		(542,535)		(451,770)
Increase in net assets with donor restrictions		167,327		611,607
Increase in total net assets		**141,436**		**850,867**
Net assets, beginning of year		19,424,833		18,573,966
Net assets, end of year	$	19,566,269	$	19,424,833

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

Consolidated Statements of Cash Flows

University of Pennsylvania
For the years ended June 30, 2020 and 2019
(in thousands)

	2020	2019
Cash flows from operating activities:		
Increase in total net assets	$ 141,436	$ 850,867
Adjustment to reconcile increase in total net assets to net cash provided by operating activities:		
Depreciation and amortization	516,878	521,795
Provision for bad debts	7,925	8,040
Gain on investments, net	(372,476)	(739,519)
Loss (gain) on disposal of plant, property and equipment	1,824	(10,915)
Donated equipment	-	(531)
Receipt of contributed securities	(134,329)	(75,188)
Proceeds from contributed securities	26,350	22,816
Receipt of contributions designated for the acquisition of long-lived assets and long-term investment	(231,406)	(213,867)
Pension, OPEB and other, net	374,803	426,535
Changes in operating assets and liabilities:		
Patient, accounts and loans receivable	(3,700)	(17,451)
Contributions receivable	10,878	(209,992)
Other assets	(49,605)	(27,718)
Accounts payable, accrued expenses and accrued retirement benefits	685,623	118,862
Deposits, advances and agency funds	30,310	19,167
Deferred income	(2,382)	(14,134)
Net cash provided by operating activities	1,002,129	658,767
Cash flows from investing activities:		
Purchase of investments	(16,043,267)	(13,267,225)
Proceeds from sale of investments	16,168,730	13,369,735
Purchase of property, plant and equipment	(1,397,560)	(1,232,647)
Net cash used by investing activities	(1,272,097)	(1,130,137)
Cash flows from financing activities:		
Proceeds from contributions received designated for the acquisition of long-lived assets and long-term investment	231,407	213,867
Proceeds from contributed securities received designated for the acquisition of long-lived assets and long-term investment	107,643	51,913
Federal student loan advances	(19,443)	2,579
Repayment of debt obligations	(598,091)	(139,692)
Proceeds from issuances of debt obligations	1,290,962	287,000
Net cash provided by financing activities	1,012,478	415,667
Net increase (decrease) in cash and cash equivalents	742,510	(55,703)
Cash and cash equivalents, beginning of year	1,375,469	1,431,172
Cash and cash equivalents, end of year	$ 2,117,979	$ 1,375,469
Supplemental disclosure of cash flow information:		
Cash paid for interest, net of amounts capitalized	$ 83,526	$ 95,392
Contributed securities received	134,329	75,188
(Decrease) increase in accrued plant, property and equipment	(53,778)	51,392
Operating cash flows for operating leases	61,093	-
Right-of-use assets obtained in exchange for lease liabilities	497,406	-

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

1. Significant Accounting Policies

Organization

The University of Pennsylvania ("University"), located in Philadelphia, Pennsylvania, is an independent, nonsectarian, not-for-profit institution of higher learning founded in 1740. The University Academic Component ("Academic Component") provides educational services, primarily for students at the undergraduate, graduate, professional and postdoctoral levels and performs research, training and other services under grants, contracts and similar agreements with sponsoring organizations, primarily departments and agencies of the United States Government. The University also operates an integrated health care delivery system, the University of Pennsylvania Health System ("UPHS"). The University is a tax-exempt organization under Section 501(c)(3) of the Internal Revenue Code.

Basis of Presentation

The consolidated financial statements have been prepared in accordance with accounting principles generally accepted in the United States of America ("U.S. GAAP") and include the accounts of the University and its subsidiaries over which the University has a controlling financial interest or exercises control. All material transactions between the University and its subsidiaries are eliminated in consolidation. Investments in subsidiaries over which the University has the ability to exercise significant influence are reported using the equity method of accounting. Other investments in subsidiaries are reported using the measurement alternative – at cost adjusted for impairment, if any, unless an observable transaction for an identical or similar security occurs.

The net assets of the University are classified and reported as follows:

> Without donor restrictions – includes net assets that are not subject to donor-imposed restrictions.
>
> With donor restrictions – includes net assets that are (i) subject to legal or donor-imposed restrictions that will be met by actions of the University and/or the passage of time, and (ii) the original values of donor restricted net assets, the use of which is limited to investment and can only be appropriated for expenditure by the University in accordance with the Pennsylvania Uniform Principal and Income Act (Pennsylvania Act).

Expenses are reported as a decrease 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 explicit donor stipulation or by law. Donor-restricted resources intended for the acquisition or construction of long-lived assets are initially reported as net assets with donor restrictions and released from restrictions to net assets without donor restrictions when the asset is placed in service or in accordance with donor-specified terms.

Expirations of restrictions on contributions and investment income, reported as Net assets released from restrictions, and the corresponding amounts are included in the Consolidated Statements of Activities as follows (in thousands):

Net Assets Without Donor Restrictions	**2020**	**2019**
Contributions and donor support	$ 137,572	$ 118,068
Investment income	306,476	290,791
Contributions and donor support for capital related activities	98,487	42,911
Net assets released from restrictions	$ 542,535	$ 451,770

Net Assets With Donor Restrictions	**2020**	**2019**
Net assets released from restrictions	$ (542,535)	$ (451,770)

Gains or losses associated with investment activities are included in Return on investments, net. Gains or losses associated with property, plant and equipment disposals are included in Other income or Other operating expenses, respectively.

Gains or losses associated with all other activities, such as debt retirements and pension and postretirement plan actuarial valuation adjustments, are reported in Pension, Other post-retirement employee benefits (OPEB) and other, net.

Fair Value

The University values certain financial and non-financial assets and liabilities by applying the FASB pronouncement on Fair Value Measurements. The pronouncement defines fair value and establishes a framework for measuring fair value that includes a hierarchy that categorizes and prioritizes the sources used to measure and disclose fair value. Fair value is defined as the price that would be received to sell an asset or paid to transfer a liability in an orderly transaction between market participants at the measurement date (an exit price). The hierarchy is broken down into three levels based on inputs that market participants would use in valuing the asset or liability and are developed based on market data obtained from sources independent of the University as follows:

Level 1: Unadjusted quoted market prices in active markets for identical assets or liabilities.

Level 2: Unadjusted quoted prices in active markets for similar assets or liabilities, unadjusted quoted prices for identical or similar assets or liabilities in markets that are not active, or inputs other than quoted prices that are observable.

Level 3: Unobservable inputs for the asset or liability.

Inputs broadly refer to the assumptions that market participants use to make valuation decisions, including assumptions about risk. Inputs may include price information, volatility statistics, specific and broad credit data, liquidity statistics and other factors. The University is required by the pronouncement to maximize the use of observable inputs (Levels 1 and 2) and minimize the use of unobservable inputs (Level 3). The University considers observable data to be that market data which is readily available, regularly distributed or updated, reliable and verifiable, not proprietary and provided by independent sources that are actively involved in the relevant market. The categorization of a financial instrument within the hierarchy is based upon the pricing transparency of the instrument and does not necessarily correspond to the University's perceived risk of that instrument.

Assets and liabilities are disclosed in the Consolidated Notes to Financial Statements within the hierarchy based on the lowest (or least observable) input that is significant to the measurement. The University's assessment of the significance of an input requires judgment, which may affect the valuation and categorization within the fair value hierarchy. The fair value of assets and liabilities using Level 3 inputs are generally determined by using pricing models or discounted cash flow methods, which all require significant management judgment or estimation.

As a practical expedient, the University is permitted to estimate the fair value of an investment in an investment company at the measurement date using the reported net asset value (NAV). Adjustment is required if the University expects to sell the investment at a value other than NAV or if the NAV is not calculated in accordance with U.S. GAAP. The University holds investments in its portfolio which are generally valued based on the most current NAV. This amount represents fair value of these investments at June 30, 2020 and 2019. Investments reported at NAV, as a practical expedient, are not included within levels 1, 2, or 3 in the fair value hierarchy.

The University performs additional procedures, including due diligence reviews, on its investments in investment companies and other procedures with respect to the capital account or NAV provided to ensure conformity with US GAAP. The University has assessed factors including, but not limited to, managers' compliance with the *Fair Value Measurement* standard, price transparency and valuation procedures in place.

Cash and Cash Equivalents

Cash equivalents include liquid investments available for current operations with maturities of three months or less when purchased and are carried at cost which approximates fair value. All short-term, highly liquid investments, otherwise qualifying as cash equivalents or restricted cash equivalents, included in the University's investments are treated as Investments, at fair value and are therefore excluded from Cash and cash equivalents in the Statements of Cash Flows.

Investments, at Fair Value

The majority of the University's investments are held in the Associated Investments Fund (AIF). The AIF is invested in accordance with the investment policies set out by an Investment Board which has been appointed by the Trustees of the University of Pennsylvania (the Trustees). The Office of Investments is responsible for the day-to-day management of the AIF including identifying, selecting and monitoring a variety of external investment managers to implement the strategic asset allocation set forth by the Investment Board. The AIF may include marketable and not readily marketable securities that it intends to hold for an indefinite period of time. The University also holds other investments which are not invested in the AIF due to various restrictions. The majority of these investments are in highly liquid short-term and equity type investments. Changes in the fair value of investments are reported in Return on investments, net in the Consolidated Statements of Activities. The following is a summary of the investments held in the AIF by asset allocation as well as investment risk:

Short-Term

Short-term investments include cash equivalents and fixed income investments with maturities of less than one year. Short-term investments are valued using observable market data and are categorized as Level 1 based on quoted market prices in active markets. The majority of these short-term investments are held in a US Treasury money market account.

Equity

Equity investments consist of direct holdings of public securities in managed accounts as well as mutual funds and private funds. The securities held in managed accounts, along with mutual funds, are generally valued based on quoted market prices in active markets obtained from exchange or dealer markets for identical assets, and are accordingly categorized as Level 1. Private funds are valued at NAV.

Debt

Debt investments consist of direct holdings of securities in managed accounts and private funds. Securities such as US Treasuries, held in managed accounts, are valued based on quoted market prices in active markets and are categorized as Level 1. Securities such as corporate and sovereign bonds, also held in managed accounts, are valued based on quoted market prices or dealer or broker quotations and are categorized as Level 2 or in the cases where inputs are unobservable as Level 3. Private funds are valued at NAV.

Absolute Return

Absolute return investments are made up of allocations to private funds. The fund managers of these private funds invest in a variety of securities, based on the strategy of the fund, which may or may not be quoted in an active market. Private funds are valued at NAV.

Real Estate

Investments in real estate are primarily in the form of private funds. The fund managers of these private funds primarily invest in investments for which there is no readily determinable market value. The fund managers may value the underlying investments based on an appraised value, discounted cash flow, industry comparables or some other method. Private funds are valued at NAV.

Private Equity

Investments in private equity are in the form of close-ended private funds. The fund managers primarily invest in investments for which there is no readily determinable market value. The fund managers may value the underlying private investments based on an appraised value, discounted cash flow, industry comparables or some other method. These private fund investments are valued at NAV.

Natural Resources

Investments in natural resources are made up of private funds and securities in managed accounts. The fund managers of these private funds primarily invest in investments for which there is no readily determinable market value. The fund managers may value the underlying investments based on an appraised value, discounted cash flow, industry comparables or some other method. Private funds are valued at NAV. The securities held in managed accounts are generally valued based on quoted market prices in active markets obtained from exchange or dealer markets for identical assets, and are accordingly categorized as Level 1.

Derivatives

The University, in the normal course of business, utilizes derivative financial instruments in connection with its investment activity. Derivatives utilized by the University include futures, options, swaps and forward currency contracts and are reflected at fair value following the definition of Level 1 and 2 assets and liabilities as previously described. Investments in derivative contracts are subject to foreign exchange and equity price risks that can result in a loss of all or part of an investment. In addition, the University is also subject to additional counterparty risk should its counterparties fail to meet the terms of their contracts.

Investment Risks

The University's investing activities expose it to a variety of risks including market, credit and liquidity risks. The University attempts to identify, measure and monitor risk through various mechanisms including risk management strategies and credit policies.

Market risk is the potential for changes in the fair value of the University's investment portfolio. Commonly used categories of market risk include currency risk (exposure to exchange rate differences between functional currency relative to other foreign currencies), interest rate risk (changes to prevailing interest rates or changes in expectations of futures rates) and price risk (changes in market value other than those related to currency or interest rate risk, including the use of NAV provided).

Credit risk is the risk that one party to a financial investment will cause a financial loss for the other party by failing to discharge an obligation (counterparty risk).

Liquidity risk is the risk that the University will not be able to meet its obligations associated with financial liabilities.

Endowment

The University's endowment consists of 6,909 donor-restricted endowment funds and 928 quasi-endowment funds established by management for a variety of purposes. The University reports all endowment investments at fair value. The majority of the endowment funds of the University have been pooled in the University's AIF. The endowment funds not pooled in the AIF are primarily invested in equities and bonds.

The Commonwealth of Pennsylvania has not adopted the Uniform Management of Institutional Funds Act (UMIFA) or the Uniform Prudent Management of Institutional Funds Act (UPMIFA). Rather, the Pennsylvania Act governs the investment, use and management of the University's endowment funds.

The Pennsylvania Act does not require the preservation of the fair value of a donor's original gift as of the gift date of a donor-restricted endowment fund, absent explicit donor stipulations to the contrary. However, based on its interpretation of the Pennsylvania Act and relevant accounting literature, the University classifies the following as net assets with donor restrictions for reporting purposes: (i) the original value of donated assets required to be invested in perpetuity; (ii) the original value of subsequent donated assets required to be invested in perpetuity; (iii) accumulations to the donated assets invested in perpetuity made in accordance with the direction of the applicable donor gift instrument at the time the accumulation is added to the fund; and (iv) donated assets and accumulations that are subject to legal or donor-imposed restrictions that will be met by actions of the University and/or the passage of time. The Pennsylvania Act allows a nonprofit to elect to appropriate for expenditure between 2% and 7% of the endowment fair value, determined at least annually and averaged over a period of three or more preceding years, including funds whose fair value is less than the original donated value.

In accordance with the Pennsylvania Act, the University has elected to adopt and follow an investment policy seeking a total return for the investments held by the AIF, whether the return is derived from appreciation of capital or earnings and distributions with respect to capital or both. The endowment spending policy which the Board of Trustees has elected to govern the expenditure of funds invested in the AIF, including funds whose fair value is less than the original donated value, is designed to manage annual spending levels and is independent of the cash yield and appreciation of investments for the year. For fiscal year 2020, the spending rule target payout was based on the sum of: (i) 70% of the prior fiscal year distribution adjusted by an inflation factor; and (ii) 30% of the prior fiscal year-end fair value of the AIF, lagged one year, multiplied by 5.0% for all funds. The payout or allocation to operations exceeded actual income, net of expenses, by $654,691,000 in 2020 and by $577,039,000 in 2019.

Property, Plant and Equipment

Property, plant and equipment (PPE) is reported net of related depreciation. Donated PPE is reported based on estimated fair value at the date of acquisition. All other PPE is reported at cost. Depreciation is computed on the straight-line method over the estimated useful lives of the assets or the shorter of the lease term or estimated useful life of the asset for capital lease assets. Contributions of library materials, as well as rare books and other collectibles, are not recorded for financial statement presentation, while purchases are recorded as Other operating expenses on the Consolidated Statement of Activities in the period acquired.

Split-Interest Agreements

The University's split-interest agreements with donors consist of irrevocable charitable remainder trusts, charitable gift annuities, pooled income funds, perpetual trusts and charitable lead trusts. Assets are invested and payments are made to donors and/or other beneficiaries in accordance with the respective agreements.

The University recognizes assets contributed to charitable remainder trusts, charitable gift annuities and pooled income funds, where it serves as trustee, at fair value, recognizes a liability to the beneficiaries based on the present value of the estimated future payments to beneficiaries to be made over the estimated remaining life of those beneficiaries using current market rates at the date of the contribution, and recognizes the difference as contribution revenue. Subsequently, the trust assets, invested in equity and debt securities, are measured at fair value at quoted market prices, and are categorized as Level 1, with the changes reported as an adjustment to Investments, at fair value on the Consolidated Statements of Financial Position and Return on investments, net on the Consolidated Statements of Activities. Liabilities to beneficiaries are revalued based on current market rates, and are categorized as Level 2, with the changes reported as an adjustment to Accrued expense and other liabilities on the Consolidated Statements of Financial Position and Return on investments, net on the Consolidated Statements of Activities.

Charitable remainder trust assets, where the University does not serve as trustee, are initially valued using the current fair value of the underlying assets, using observable market inputs based on its beneficial interest in the trust, discounted to a single present value using current market rates at the date of the contribution. The initially contributed assets are categorized as Level 3, and reported as Investments, at fair value on the Consolidated Statements of Financial Position and Contribution revenue on the Consolidated Statements of Activities. Subsequent valuation follows this same approach with changes in fair value reported as an adjustment to Investments, at fair value on the Consolidated Statements of Financial Position and Return on investments, net on the Consolidated Statements of Activities. The primary unobservable input used in the fair value measurement of the charitable remainder trust assets is the discount rate. Significant fluctuation in the discount rates utilized in this calculation could result in a material change in fair value.

Perpetual trust assets are initially valued at the current fair value of the underlying assets using observable market inputs based on its beneficial interest in the trust. The initially contributed assets are categorized as Level 3 and are reported as Investments, at fair value on the Consolidated Statements of Financial Position and as Contribution revenue on the Consolidated Statements of Activities. Subsequent valuation follows this same approach with changes in fair value reported as an adjustment to Investments, at fair value on the Consolidated Statements of Financial Position and Return on investments, net on the Consolidated Statements of Activities. The primary unobservable inputs used in the fair value measurement of the perpetual trust assets are the underlying securities held by the trust. Significant fluctuation in the market value of these underlying securities could result in a material change in fair value.

The University reports charitable lead trust assets by discounting future cash flows using current market rates at the measurement date, matched to the payment period of the agreement. The initially contributed assets are categorized as Level 3, and reported as Investments, at fair value on the Consolidated Statements of Financial Position and as Contribution revenue on the Consolidated Statements of Activities. Subsequent valuation follows this same approach with changes in fair value reported as an adjustment to Investments, at fair value on the Consolidated Statements of Financial Position and Return on investments, net on the Consolidated Statements of Activities. The primary unobservable input used in the fair value measurement of the charitable lead trust assets is the discount rate. Significant fluctuation in the discount rates utilized in this calculation could result in a material change in fair value.

Income Taxes

The University is a tax exempt organization under Section 501(c)(3) of the Internal Revenue Code. Most of its activities and income are related to its exempt purposes and are exempt from federal and state income taxes. None of its activities and income is subject to Pennsylvania income tax. Unrelated activities and income are subject to federal "Unrelated Business Income Tax."

The University regularly evaluates its tax position and does not believe it has any uncertain tax positions that require disclosure or adjustment to the consolidated financial statements.

Tuition and Fees

Tuition and fees includes tuition, room and board, and other student fees which are recognized as revenue over time during the fiscal year in which the related academic services are rendered. Tuition and fees received in advance of services to be rendered are reported as Deferred income on the Consolidated Statements of Financial Position. The University maintains a policy of offering qualified applicants admission to the University without regard to financial circumstance, as well as meeting in full the demonstrated financial need of those admitted. Tuition and fees have been reduced by certain grants and scholarships in the amount of $360,863,000 in 2020 and $349,981,000 in 2019.

Sponsored Programs

Sponsored programs includes revenue from exchange and conditional non-exchange agreements with governments, foundations and private sources generally for research activities. Revenue from exchange agreements is generally recognized at a point in time when performance obligations are met, and revenue from conditional non-exchange agreements is generally recognized as the related costs are incurred. Non-exchange agreements are considered conditional if the terms of the agreement include both a right of return/release of assets received/promised and a barrier. These agreements become unconditional as barriers are met. At June 30, 2020, the University has unrecorded conditional agreements of $2,164,163,000. In 2020 and 2019, sponsored programs revenue earned from governmental sources totaled

$753,901,000 and $753,118,000, respectively. Indirect costs recovered on federally-sponsored programs are generally based on predetermined reimbursement rates which are stated as a percentage and distributed based on the modified total direct costs incurred. The University negotiates its federal indirect rate with its cognizant federal agency. Indirect costs recovered on all other grants and contracts are based on rates negotiated with the respective sponsors. Funds received for sponsored research activity are subject to audit. Based upon information currently available, management believes that any liability resulting from such audits will not materially affect the financial position or operations of the University.

Contributions

Contributions are revenues from unconditional non-exchange agreements with private sources and foundations. Contributions are recognized in the period received and reported as increases in the appropriate net asset category based on the presence or absence of donor-imposed restrictions. Non-exchange agreements are considered conditional if the terms of the agreement include both a right of return/release of assets received/promised and a barrier. These agreements become unconditional as barriers are met. Contributions and donor support without donor restrictions also includes net assets released as a result of corresponding expenditures which met donor-imposed restrictions. Contributions designated for the acquisition of long-lived assets and long-term investment are reported in Nonoperating activities.

The University reports unconditional pledges at fair value by discounting future cash flows using current market rates at the measurement date, ranging from 0.53% to 1.93%, matched to the payment period of the agreement, and accordingly categorizes these assets as Level 3. The primary unobservable input used in the fair value measurement of the University's Contributions receivable is the discount rate. Significant fluctuation in the discount rates utilized in this calculation could result in a material change.

Net Patient Service Revenue

Net patient service revenue is derived from contracts with patients of UPHS in which its performance obligation is to provide health care services. Net patient service revenue is recorded over time during the period these performance obligations are satisfied and at the determined transaction price, which represents the estimated net realizable amounts due from patients, third-party payers and others for health care services rendered. Estimated net realizable amounts represent amounts due, net of implicit and explicit price concessions. Implicit price concessions are based on management's assessment of expected net collections considering economic conditions, historical experience, trends in health care coverage and other collection indicators. After satisfaction of amounts due from insurance and reasonable efforts to collect from patients have been exhausted, UPHS follows established guidelines for placing certain past-due patient balances with collection agencies, subject to terms of certain restrictions on collection efforts as determined by UPHS. Patient receivables are written off after collection efforts have been followed in accordance with UPHS' policy. Certain revenue received from third-party payers is subject to audit and retroactive adjustment. Any changes in estimates under these contracts are recorded in operations currently.

Use of Estimates

The preparation of financial statements in conformity with U.S. GAAP requires management to make estimates and assumptions that affect the reported amounts of assets and liabilities and disclosure of contingent assets and liabilities at the date of the financial statements and the reported amounts of revenue and expenses during the reporting period. Actual results could differ from those estimates.

COVID-19

In January 2020, the World Health Organization declared the novel strain of coronavirus ("COVID-19") a Public Health Emergency of International Concern. The COVID-19 pandemic has caused disruptions to our nation's healthcare and higher education systems, including the University's. Such disruptions included reductions in availability of staffing and in the availability of personal protective equipment to prevent spread of the disease during patient treatment. Generally, elective procedures were postponed by physicians and acute care facilities to prepare for the expected volume of COVID-

19 patients and reduce the risk of exposure to COVID-19. Other negatively impacted areas include, but are not limited to, student enrollment, housing and dining revenues, research, faculty, staff & student travel, investment performance, philanthropy and increased financial need of students. The University is monitoring legislative developments, including future relief funding opportunities, and directives from federal, state, and local officials to determine additional precautions and procedures that may need to be implemented.

In response, on March 27, 2020 the Federal Government passed the Coronavirus Aid, Relief, and Economic Stimulus Act (CARES Act) which made funds available to UPHS and the Academic Component through various provisions of the legislation. As of June 30, 2020, UPHS received CARES Act provider relief funding of $213,160,000 reported as Other income on the Consolidated Statements of Activities. In addition, UPHS received $599,498,000 in advanced payments from the Centers for Medicare and Medicaid Services (CMS) Accelerated and Advanced Payments Program reported as Accrued expense and other liabilities on the Consolidated Statements of Financial Position. Furthermore, the CARES Act allowed employers to defer the deposits and payments of the employer's share of the Social Security taxes. As of June 30, 2020, $34,731,000 and $27,314,000 were deferred and reported as Accrued expense and other liabilities on the Consolidated Statements of Financial Position, for UPHS and the Academic Component, respectively. UPHS recognized revenue related to the CARES Act funding based on information available at June 30, 2020 based upon laws and regulations governing the funding as well as interpretations issued by the Department of Health and Human Services (HHS). In September 2020, HHS issued new reporting requirements for the CARES Act funding. Due to these new reporting requirements there is at least a reasonable possibility that amounts recorded under CARES Act funding may change in future periods.

Recent Authoritative Pronouncements

Periodically, the Financial Accounting Standards Board (FASB) issues updates to the Accounting Standards Codification (ASC) which impacts the University's financial reporting and related disclosures. The paragraphs which follow summarize a number of relevant updates.

In February 2016, the FASB issued a standard on Leases. This standard requires lessees to recognize assets and liabilities for the rights and obligations created by leases. The recognition, measurement, and presentation of expenses and cash flows arising from a lease primarily depends on its classification as a finance or operating lease. The University adopted this standard for fiscal year 2020 on a modified retrospective basis, the impact of which is noted in the accompanying Leases footnote.

In November 2016, the FASB issued a standard on Restricted Cash. This standard requires the Consolidated Statements of Cash Flows explain the changes in the total of cash, cash equivalents, restricted cash and restricted cash equivalents during a fiscal year. It is also required that this total be reconciled to the amounts reported on the Consolidated Statements of Financial Position and that the nature of the restrictions be disclosed. The University adopted this standard for fiscal year 2020 on a retrospective basis.

2. University of Pennsylvania Health System - Summarized Financial and Related Information

The Trustees formed Penn Medicine, the governance structure which oversees the activities of UPHS and the University of Pennsylvania Perelman School of Medicine (PSOM) in order to operate, oversee and coordinate its academic, research and clinical missions.

UPHS is comprised of the following operating entities: Clinical Practices of the University of Pennsylvania; Clinical Care Associates; Hospital of the University of Pennsylvania; Penn Presbyterian Medical Center; Pennsylvania Hospital of the University of Pennsylvania Health System; Chester County Hospital and Health System; Lancaster General Health (LGH); Wissahickon Hospice of the University of Pennsylvania Health System; Princeton HealthCare System (PHCS);

Franklin Casualty Insurance Company, a wholly owned Risk Retention Group; and, Quaker Insurance Company Ltd., a wholly owned offshore captive insurance company, (collectively referred to as RRG/Captive).

Throughout the year, certain transactions (primarily billings for allocations of common costs, physicians' salaries and benefits, certain purchased services and support for PSOM) are conducted between UPHS and the University. Nonoperating, net, as shown below, includes transfers from UPHS to the University of $207,085,000 and $234,722,000 in 2020 and 2019, respectively, to further the research and educational activities of PSOM and $6,581,000 and $5,671,000 in 2020 and 2019, respectively, for other activities. In addition, UPHS recognized operating expenses of $19,618,000 and $19,770,000 in 2020 and 2019, respectively, to support academic operating activities in the clinical departments of PSOM.

The effect of all these transactions is included in the following summarized financial information of UPHS as of and for the years ended June 30, 2020 and 2019 (in thousands):

	2020	2019
Net patient service revenue	$ 6,813,226	$ 6,940,977
Other revenue	994,662	653,071
Total expenses	(7,565,166)	(7,156,362)
Excess of revenue over expenses from operations	242,722	437,686
Nonoperating, net	(393,237)	(310,922)
(Decrease) increase in net assets	$ (150,515)	$ 126,764
Total current assets	$ 2,554,537	$ 1,876,193
Assets whose use is limited:		
Held by trustees	139,028	163,598
RRG/Captive	243,622	219,879
Donor restricted and other	657,776	678,137
Designated	2,833,871	2,731,038
Property and equipment, net	5,369,409	4,760,563
Investments and other assets	1,361,266	1,152,231
Total assets	$ 13,159,509	$ 11,581,639
Total current liabilities	$ 1,973,427	$ 1,243,888
Long-term debt, net of current portion	2,692,254	2,283,002
Other liabilities	2,722,567	2,132,973
Total liabilities	$ 7,388,248	$ 5,659,863
Net assets		
Without donor restrictions	$ 5,098,229	$ 5,234,000
With donor restrictions	673,032	687,776
Total net assets	$ 5,771,261	$ 5,921,776
Total liabilities and net assets	$ 13,159,509	$ 11,581,639

Net Patient Service Revenue

Net Patient Service Revenue (NPSR) for the years ended June 30, 2020 and 2019 is derived from the following payers:

	2020	2019
Medicare (including Managed Medicare)	32%	34%
Medicaid (including Managed Medicaid)	12%	10%
Managed Care	36%	35%
Independence Blue Cross (IBC)	15%	16%
Commercial	4%	4%
Self Pay	1%	1%
	100%	100%

UPHS has agreements with the following third-party payers that provide for payments at amounts that differ from its established rates:

Inpatient acute care services and outpatient services rendered to Medicare program beneficiaries are paid at prospectively determined rates. These rates vary according to a patient classification system that is based on clinical, diagnostic, and other factors. Inpatient psychiatric services and medical education costs related to Medicare beneficiaries are paid based on a cost reimbursement methodology. UPHS is reimbursed for cost reimbursable items at a tentative rate with final settlement determined after submission of annual cost reports by each hospital and audits thereof by the Medicare fiscal intermediary.

Inpatient and outpatient services rendered to Medicaid program beneficiaries are paid at prospectively determined rates. Additional amounts are allocated to each hospital for training residents and serving a disproportionate indigent population.

Laws and regulations governing the Medicare and Medicaid programs are extremely complex and subject to interpretation. As a result, there is at least a reasonable possibility that recorded estimates will change by a material amount in the near term.

During 2017, UPHS and IBC reached agreement on terms of a five-year agreement. Payments made for inpatient services provided to IBC traditional and managed care subscribers are effected on a per case rate basis for most services. Payment for outpatient services is principally based upon negotiated fee schedules. Hospital and physician rates also provide for annual inflationary increases. In addition, incentives are paid for high performance with regard to clinical outcomes and patient quality. The agreement continues unless terminated by the parties.

During 2015, UPHS and Aetna reached agreement on terms of a five-year agreement. A one-year bridge agreement is effective July 1, 2020. The terms of the agreement provide payments for inpatient hospital services on a per case rate basis. Payments for outpatient services continue to be predominantly based upon negotiated fee schedules.

UPHS also has reimbursement agreements with other commercial insurance carriers, health maintenance organizations and preferred provider organizations. The basis for reimbursement under these agreements includes prospectively determined rates per discharge, discounts from established charges and prospectively determined per diem rates.

Charity Care

UPHS provides services to patients who meet certain criteria under its charity care policy without charge or at amounts less than UPHS' established rates. Because UPHS does not pursue collections, such amounts have been excluded from NPSR. UPHS estimates the costs of providing charity care services based on data derived from a combination of UPHS' cost accounting system and the ratio of costs to charges. Of the Total expenses reported above by UPHS, an estimated $29,793,000 and $24,968,000 were incurred as a result of providing services to charity patients for the years ended June 30, 2020 and 2019, respectively.

Medical Professional Liability Claims

The University is insured for medical professional liability claims through the combination of the Medical Care Availability and Reduction of Error Fund (Mcare), various commercial insurance companies and risk retention programs.

Mcare levies health care provider surcharges, as a percentage of the Pennsylvania Joint Underwriters Association rates for basic coverage, to pay claims and pay administrative expenses of Mcare participants. These surcharges are recognized as expenses in the period incurred. Mcare operates on a pay-as-you-go basis and no provision has been made for any future Mcare assessments in the accompanying financial statements, as the University's portion of the unfunded Mcare liability cannot be estimated.

Anticipated insurance recoveries and estimated liabilities for medical malpractice claims or similar contingent liabilities are presented separately on the Consolidated Statement of Financial Position in Accounts receivable, net of allowances and Accrued expenses and other liabilities, respectively. The University accrues for estimated risks arising from both asserted and unasserted medical professional liability claims. The estimate of the gross liability and corresponding receivable for unasserted claims arising from unreported incidents is based on analysis of historical claims data by an independent actuary, which is recorded utilizing a 2.25% to 3.50% discount rate as of June 30, 2020 and 2019. The gross liability recorded under this program is $750,633,000 and $732,389,000 at June 30, 2020 and 2019, respectively, with a corresponding receivable of $119,255,000 and $103,777,000 at June 30, 2020 and 2019, respectively.

3. Accounts Receivable

Accounts receivable are reported at their net realizable value. The major components of receivables, net of allowances for doubtful accounts of $22,771,000 and $22,086,000 at June 30, 2020 and 2019, respectively, are as follows (in thousands):

	2020	2019
Sponsored research	$ 159,528	$ 130,161
Malpractice	119,255	103,777
Student	26,450	18,614
Trade	63,233	60,949
Investment income	4,343	8,096
Other	134,230	76,461
Total Accounts receivable	$ 507,039	$ 398,058

4. Loans Receivable

Loans receivable, and related allowances for doubtful accounts, consist of the following at June 30, 2020 and 2019 (in thousands):

2020	Receivable	Allowance	Net
Student Loans:			
Federally-sponsored	$ 42,410		$ 42,410
Other	13,748	$ 2,994	10,754
Total Student loans	$ 56,158	$ 2,994	$ 53,164
Other	10,658	424	10,234
Total Loans receivable, net	$ 66,816	$ 3,418	$ 63,398

2019	Receivable	Allowance	Net
Student Loans:			
Federally-sponsored	$ 50,509		$ 50,509
Other	14,406	$ 3,275	11,131
Total Student loans	$ 64,915	$ 3,275	$ 61,640
Other	10,964	242	10,722
Total Loans receivable, net	$ 75,879	$ 3,517	$ 72,362

Loans receivable primarily consists of student loans. Student loans include federally-sponsored student loans and donor-restricted student loans with mandated interest rates and repayment terms. The federally-sponsored student loans represent amounts due from current and former students under various Federal Government funded loan programs offered to graduate and undergraduate students. Loans disbursed under these programs are able to be assigned to the Federal Government upon default by the borrower; therefore, no related allowance is considered necessary. Funding received under these programs is ultimately refundable to the Federal Government in the event the University no longer participates and accordingly is reported as a liability in Federal student loan advances in the Consolidated Statements of Financial Position. Determination of the fair value of student loans receivable is not practicable.

Loans receivable are reported at their net realizable value. The University regularly assesses the adequacy of the allowances for credit losses of its loans by performing ongoing evaluations, including such factors as aging, differing economic risks associated with each loan category, financial condition of specific borrowers, economic environment in which the borrowers operate, level of delinquent loans, value of collateral and existence of guarantees or indemnifications.

5. Contributions Receivable

A summary of contributions receivable at June 30, 2020 and 2019, is as follows (in thousands):

	2020	2019
Unconditional promises expected to be collected in:		
Less than one year	$ 169,979	$ 171,791
One year to five years	249,791	280,978
Over five years	120,726	117,343
	540,496	570,112
Less: Discount	(27,699)	(45,638)
Less: Allowances for doubtful amounts	(34,647)	(36,024)
Total Contributions receivable, net	$ 478,150	$ 488,450

At June 30, 2020 and 2019, the University has outstanding unrecorded conditional promises to give, including non-legally binding bequests, of $467,797,000 and $474,184,000, respectively. When conditional promises to give become unconditional or non-legally binding bequests cash payments are received, they are recorded and are generally restricted for operations, endowment and capital projects as stipulated by the donors.

6. Investments, at Fair Value

A summary of investments, including the AIF, as of June 30, 2020 and 2019, categorized in accordance with the fair value hierarchy, is as follows (in thousands):

Assets	Level 1	Level 2	Level 3	Investments at NAV	2020
Short-term	$ 594,126				$ 594,126
Equity:					
US equities	719,227			$ 1,299,712	2,018,939
International equities	141,939			1,111,548	1,253,487
Emerging market equities	175,705			1,087,617	1,263,322
Total Equity	1,036,871			3,498,877	4,535,748
Debt:					
US treasuries	1,642,721	$ 19,999			1,662,720
Corporate bonds	1,449	114,512			115,961
High yield				119	119
Total Debt	1,644,170	134,511		119	1,778,800
Split-interest agreements	87,085		$ 325,701		412,786
Absolute return				3,893,852	3,893,852
Real estate		59		978,372	978,431
Private equity			14,473	4,110,984	4,125,457
Natural resources	86,075			445,171	531,246
Derivative instruments		17,132			17,132
Other			2,538		2,538
Total assets	$ 3,448,327	$ 151,702	$ 342,712	$ 12,927,375	$ 16,870,116

Assets	Level 1	Level 2	Level 3	Investments at NAV	2019
Short-term	$ 1,188,571				$ 1,188,571
Equity:					
US equities	721,261			$ 1,077,918	1,799,179
International equities	190,694			1,055,871	1,246,565
Emerging market equities	153,435			1,091,866	1,245,301
Total Equity	1,065,390			3,225,655	4,291,045
Debt:					
US treasuries	1,716,743	$ 41,860			1,758,603
Corporate bonds	1,548	100,706		26,849	129,103
High yield				98	98
Total Debt	1,718,291	142,566		26,947	1,887,804
Split-interest agreements	86,492		$ 322,631		409,123
Absolute return				3,259,286	3,259,286
Real estate		59		804,620	804,679
Private equity			14,426	3,832,884	3,847,310
Natural resources	157,440			650,414	807,854
Derivative instruments		1,167			1,167
Other			2,547		2,547
Total assets	$ 4,216,184	$ 143,792	$ 339,604	$ 11,799,806	$ 16,499,386

Included in Short-term investments is $20,947,000 and $43,287,000 of amounts held by trustees under indenture and escrow agreements at June 30, 2020 and 2019, respectively.

At June 30, 2020 and 2019, Short-term investments include $40,915,000 and $85,301,000, respectively, of outstanding receivables from trading activities. At June 30, 2020 and 2019, Short-term investments also include $64,542,000 and $49,929,000, respectively, of outstanding payables from trading activities.

As of June 30, 2020 and 2019 there were no transfers between Level 1 and 2.

Liabilities related to equity short positions of $329,955,000 and $362,826,000 at June 30, 2020 and 2019, respectively, are reported in Accrued expenses and other liabilities on the Consolidated Statements of Financial Position. These liabilities are valued using observable market data and are categorized as Level 1 based on quoted market prices in active markets.

The University has made investments in various long-lived partnerships and, in other cases, has entered into contractual agreements that may limit its ability to initiate redemptions due to notice periods, lock-ups and gates. The University has also made commitments to various limited partnerships. The University expects these funds to be called over the next 5 years. The total amount of unfunded commitments is $3,316,965,000 which represents 23.3% of the AIF value as of June 30, 2020.

Details on the fair value, remaining estimated life, outstanding commitments, current redemption terms and restrictions by strategy and type of investment are provided below (in thousands):

Strategy	Fair Value June 30, 2020	Fair Value June 30, 2019	Outstanding Commitments	Redemption Terms	Redemption Restrictions
Short-term	$ 594,126	$ 1,188,571		Daily	None
Equity					
Managed accounts	761,773	764,350		Daily and semi-annually with varying notice periods	None
Mutual funds	275,098	257,144		Daily	None
Private funds (1)	3,498,877	3,269,551	$ 47,550	Weekly to annually with varying notice periods	Lock-up provisions ranging from 0 to 5 years and side pocket investments (2)
Total Equity	4,535,748	4,291,045	47,550		
Debt					
Managed accounts	1,778,681	1,860,857		Daily	None
Private funds (1)	119	26,947		Daily	None; side pocket investments (2)
Total Debt	1,778,800	1,887,804			
Absolute return	3,893,852	3,259,286	230,186	Range from monthly to annually and close-ended funds not available for redemption	Lock-up provisions ranging from 0 to 5 years with earlier redemptions subject to redemption fee, close-ended funds not available for redemption, and side pocket investments (2)
Real estate	978,431	804,679	923,667	Close-ended funds not available for redemption	Close-ended funds not available for redemption
Private equity	4,125,457	3,847,310	1,899,101	Close-ended funds not available for redemption	Close-ended funds not available for redemption
Natural resources					
Managed accounts	86,075	149,433		Daily	None
Private funds (1)	445,171	658,421	216,461	Close-ended funds not available for redemption	Close-ended funds not available for redemption
Total Natural Resources	531,246	807,854	216,461		
Totals	$ 16,437,660	$ 16,086,549	$ 3,316,965		

(1) Private funds consist of close-ended and open-ended funds generally in the form of limited partnerships. Close-ended funds have varying remaining fund terms between 1 to 15 years.

(2) Side pocket investments represent investments designated by a manager that are not available for liquidity in an otherwise liquid fund vehicle.

Included in Level 1 split-interest agreement investments above are readily marketable assets invested by the University separately from the AIF where the University serves as trustee with an aggregate fair value of $87,085,000 and $86,492,000 at June 30, 2020 and 2019, respectively. These amounts include assets related to the University Academic Component charitable gift annuities totaling $43,979,000 and $42,158,000 at June 30, 2020 and 2019, respectively. Included in these split-interest agreement investments are amounts held to meet legally mandated annuity reserves of $29,006,000 and $27,323,000 as of June 30, 2020 and 2019, respectively, as required by the laws of the following states where certain individual donors reside: California, Maryland, New Jersey and New York. Level 3 split-interest agreement investments are managed and invested outside of the University by external trustees.

Invested in the AIF with an aggregate fair value of $168,792,000 and $171,392,000 at June 30, 2020 and 2019, respectively, is a perpetual trust managed by an external trustee who has delegated investment decisions to the University. The University invests the assets of this trust in accordance with its endowment policy.

A summary of Level 3 assets included in split-interest agreement investments, where the University is not trustee, measured at fair value, as of June 30, 2020 and 2019 is as follows (in thousands):

	2020	2019
Charitable remainder trusts	$ 19,487	$ 18,511
Charitable lead trusts	5,763	4,568
Perpetual trusts	300,451	299,552
Total	$ 325,701	$ 322,631

Changes to the reported amounts of split-interest agreement investments measured at fair value using unobservable (Level 3) inputs as of June 30, 2020 and 2019 are as follows (in thousands):

	Charitable Remainder Trusts	Charitable Lead Trusts	Perpetual Trusts	Total
June 30, 2019	$ 18,511	$ 4,568	$ 299,552	$ 322,631
Net realized gains			2,974	2,974
Net unrealized gains/(losses)	976	1,225	(2,610)	(409)
Acquisitions			535	535
Liquidations		(30)		(30)
June 30, 2020	$ 19,487	$ 5,763	$ 300,451	$ 325,701

	Charitable Remainder Trusts	Charitable Lead Trusts	Perpetual Trusts	Total
June 30, 2018	$ 17,239	$ 5,621	$ 298,116	$ 320,976
Net realized gains			6,994	6,994
Net unrealized gains/(losses)	724	(1,023)	(4,055)	(4,354)
Acquisitions	1,191			1,191
Liquidations	(643)	(30)	(1,503)	(2,176)
June 30, 2019	$ 18,511	$ 4,568	$ 299,552	$ 322,631

The following tables set forth the fair value, related gains (losses) and notional amounts of the University's derivative instruments by contract type as of June 30, 2020 and 2019 (in thousands):

2020	Notional Amount	Gross Derivative Assets	Gross Derivative Liabilities	Derivative Gains
Foreign currency contracts	$ 112,672	$ 301	$ 916	$ (2,442)
Futures contracts	(542,830)	16,403		(17,423)
Options contracts	(125,284)	428	1,306	(7,606)
Total	$ (555,442)	$ 17,132	$ 2,222	$ (27,471)

2019				
	Notional Amount	Gross Derivative Assets	Gross Derivative Liabilities	Derivative Losses
Foreign currency contracts	$ 121,124	$ 1,167	$ 33	$ 369
Futures contracts	(398,548)			3,210
Options contracts	(122,014)		627	
Total	$ (399,438)	$ 1,167	$ 660	$ 3,579

The notional amount is representative of the volume and activity of the respective derivative type during the years ended June 30, 2020 and 2019.

Gross derivatives assets and liabilities are shown on the Consolidated Statements of Financial Position in Investments, at fair value and Accrued expenses and other liabilities, respectively. Derivative gains (losses) are shown in Return on investments, net on the Consolidated Statements of Activities, in the appropriate net asset classification.

A summary of the University's total investment return, net of external and direct internal investment expenses, for the years ended June 30, 2020 and 2019 is presented below (in thousands):

	2020	2019
AIF investment income	$ 59,105	$ 90,494
AIF realized and unrealized gains	457,907	793,459
Return on AIF	517,012	883,953
Other investment gains	37,940	69,588
Total Return on investments, net	$ 554,952	$ 953,541

7. Endowment

The composition and changes to the amount of the University's endowment at June 30, 2020 are as follows (in thousands):

	Without Donor Restrictions	With Donor Restrictions	Total
Donor-restricted endowment funds		$ 7,513,627	$ 7,513,627
Quasi-endowment funds	$ 7,363,736		7,363,736
June 30, 2020	$ 7,363,736	$ 7,513,627	$ 14,877,363

	Without Donor Restrictions	With Donor Restrictions	Total
Net assets, June 30, 2019	$ 7,252,228	$ 7,397,533	$ 14,649,761
Investment return	123,658	216,502	340,160
New gifts	11,219	236,657	247,876
Allocation of endowment assets for expenditure	(654,691)		(654,691)
Other investment allocation	(6,918)		(6,918)
Transfers to create board designated funds	302,623		302,623
Donor imposed Income Reinvestments		955	955
Other transfers	21,940	(24,343)	(2,403)
Released from restriction	313,677	(313,677)	
Net assets, June 30, 2020	$ 7,363,736	$ 7,513,627	$ 14,877,363

The composition and changes to the amount of the University's endowment as of June 30, 2019 are as follows (in thousands):

	Without Donor Restrictions	With Donor Restrictions	Total
Donor-restricted endowment funds		$ 7,397,533	$ 7,397,533
Quasi-endowment funds	$ 7,252,228		7,252,228
June 30, 2019	$ 7,252,228	$ 7,397,533	$ 14,649,761

	Without Donor Restrictions	With Donor Restrictions	Total
Net assets, June 30, 2018	$ 6,828,370	$ 6,949,071	$ 13,777,441
Investment return	414,032	400,565	814,597
New gifts	6,999	357,012	364,011
Allocation of endowment assets for expenditure	(577,039)		(577,039)
Other investment allocation	(3,793)		(3,793)
Transfers to create board designated funds	288,291		288,291
Other transfers	3,634	(17,381)	(13,747)
Released from restriction	291,734	(291,734)	
Net assets, June 30, 2019	$ 7,252,228	$ 7,397,533	$ 14,649,761

At June 30, 2020 and 2019, the aggregate amount of funds reported in Net assets with donor restrictions for which the fair value was below historic value was $1,265,000 and $0, respectively.

8. Property, Plant and Equipment, net

The components of PPE at June 30, 2020 and 2019 are as follows (in thousands):

	Estimated Useful Life in years	2020	2019
Land and land improvements	N/A to 20	$ 423,467	$ 438,885
Buildings and fixed equipment	5 to 50	10,475,473	10,032,085
Moveable equipment and other	4 to 20	2,136,837	2,013,160
Construction-in-progress		2,046,652	1,354,708
		15,082,429	13,838,838
Less: Accumulated depreciation		(6,304,344)	(5,809,846)
Property, plant and equipment, net		$ 8,778,085	$ 8,028,992

The University recorded $533,289,000 and $539,372,000 of depreciation expense for the years ended June 30, 2020 and 2019, respectively.

The University capitalized $55,940,000 and $35,748,000 of interest costs for the years ended June 30, 2020 and 2019, respectively.

The University has conditional asset retirement obligations of $15,278,000 and $16,320,000 as of June 30, 2020 and 2019, respectively, which primarily relate to asbestos contained in buildings and underground steam distribution piping and are included within Accrued expenses and other liabilities in the Consolidated Statements of Financial Position.

9. Split-Interest Agreements

Changes in the value of assets, liabilities and net assets pursuant to split-interest agreements as of June 30, 2020 and 2019 are as follows (in thousands):

2020	Assets	Liabilities	Net Assets
June 30, 2019	$ 409,123	$ (50,311)	$ 358,812
New contributions	7,418	(3,951)	3,467
Investment income	2,038	(1,673)	365
Realized and unrealized gain, net	2,515		2,515
Payments and settlements	(8,308)	7,517	(791)
Actuarial adjustment		(2,418)	(2,418)
Net change	3,663	(525)	3,138
June 30, 2020	$ 412,786	$ (50,836)	$ 361,950

2019	Assets	Liabilities	Net Assets
June 30, 2018	$ 398,793	$ (46,965)	$ 351,828
New contributions	8,552	(8,898)	(346)
Investment income	1,882	(1,545)	337
Realized and unrealized gain, net	7,787		7,787
Payments and settlements	(7,891)	8,593	702
Actuarial adjustment		(1,496)	(1,496)
Net change	10,330	(3,346)	6,984
June 30, 2019	$ 409,123	$ (50,311)	$ 358,812

10. Contingencies, Guarantees and Commitments

The University offers various loan programs for students and families to pay tuition, fees and other costs. Certain loans issued by private lending institutions are guaranteed by the University totaling $20,644,000 and $27,979,000 at June 30, 2020 and 2019, respectively. Upon default by the borrower, the University is required to pay all or a portion of the outstanding loan balance. The University recognizes a liability for the greater of the fair value of the guarantee or defaults in the portfolio of guaranteed loans. The recognized liability is $3,005,000 and $3,182,000 at June 30, 2020 and 2019, respectively and reflects the fair value of the guarantee on these outstanding loan balances.

Various lawsuits, claims and other contingent liabilities arise in the ordinary course of the University's education and health care activities. Based upon information currently available, management believes that any liability resulting there-from will not materially affect the financial position or operations of the University.

The University is currently involved in various projects that have resulted in capital and property acquisition commitments from the University. As of June 30, 2020, approximately $486,351,000 has been committed by the University.

11. Pension and Other Postretirement Benefit Costs

Retirement benefits are principally provided to employees through contributory defined contribution plans. The Academic Component's policy with respect to its contribution is to provide up to 9% of eligible employees' salaries, while the UPHS contribution can be up to 6.5%. The University's contributions to these plans amounted to $231,054,000 and $212,316,000 as of June 30, 2020 and 2019, respectively.

The University also has non-contributory defined benefit pension plans. Benefits under the plans generally are based on the employee's years of service and compensation during the years preceding retirement. Contributions to the plans are made in amounts necessary to at least satisfy the minimum required contributions as specified in the Internal Revenue Service Code and related regulations. The Academic Component's plan was frozen to new full-time entrants effective July 1, 2000 and part-time entrants effective July 1, 2018. UPHS' primary plan was frozen to new entrants effective July 1, 2010; the benefit accruals for all participants of the LGH and PHCS plans were frozen effective June 30, 2013 and December 31, 2011, respectively. In June 2020, UPHS paid $78,879,000 from plan assets to an insurance company to buy out the total pension benefit for a portion of its retired participants.

Additionally, the University provides certain healthcare and life insurance benefits (OPEB) for retired employees. Only a limited number of employees may become eligible for such benefits if they reach retirement age while working for the University. These and similar benefits for active and certain retired employees are provided through insurance contracts.

The University uses a measurement date of June 30 for its defined benefit pension and OPEB plans.

Change in Plan Assets/ Obligation and Funded Status

The funded status of the plans is measured as the difference between the plan assets at fair value and the projected benefit obligation (PBO) for Pension Benefits or accumulated postretirement benefit obligation (APBO) for Other Postretirement Benefits. The resulting net liability is recorded in Accrued retirement benefits on the Statements of Financial Position. The following shows changes in the benefit obligation, plan assets and funded status (in thousands):

2020	Pension Benefits	Other Postretirement Benefits	Total
Change in Plan Assets			
Fair value of plan assets, beginning of year	$ 2,696,740	$ 522,365	$ 3,219,105
University contributions	130,008	42,698	172,706
Plan participants' contributions	151	8,729	8,880
Actual return on plan assets	150,317	17,778	168,095
Benefits paid	(184,881)	(36,619)	(221,500)
Fair value of plan assets, end of year	$ 2,792,335	$ 554,951	$ 3,347,286
Change in Benefit Obligation			
Benefit obligation, beginning of year (PBO/APBO)	$ 3,750,476	$ 1,014,328	$ 4,764,804
Service cost	77,085	35,476	112,561
Interest cost	136,674	38,148	174,822
Plan participants' contributions	151	8,729	8,880
Net actuarial (gain)/loss	342,211	30,238	372,449
Benefits paid	(184,881)	(36,619)	(221,500)
Benefit obligation, end of year (PBO/APBO)	$ 4,121,716	$ 1,090,300	$ 5,212,016
Funded status, end of year	**$ 1,329,381**	**$ 535,349**	**$ 1,864,730**
Other retirement programs			103,521
Accrued retirement benefits			$ 1,968,251

2019		Pension Benefits		Other Postretirement Benefits		Total
Change in Plan Assets						
Fair value of plan assets, beginning of year	$	2,590,798	$	505,340	$	3,096,138
University contributions		87,634		32,244		119,878
Plan participants' contributions		159		6,419		6,578
Actual return on plan assets		120,702		13,198		133,900
Benefits paid		(102,553)		(34,836)		(137,389)
Fair value of plan assets, end of year	$	2,696,740	$	522,365	$	3,219,105
Change in Benefit Obligation						
Benefit obligation, beginning of year (PBO/APBO)	$	3,319,649	$	916,367	$	4,236,016
Service cost		68,923		30,269		99,192
Interest cost		139,344		38,741		178,085
Plan participants' contributions		159		6,419		6,578
Net actuarial (gain)/loss		324,954		57,368		382,322
Benefits paid		(102,553)		(34,836)		(137,389)
Benefit obligation, end of year (PBO/APBO)	$	3,750,476	$	1,014,328	$	4,764,804
Funded status, end of year	**$**	**1,053,736**	**$**	**491,963**	**$**	**1,545,699**
Other retirement programs						105,986
Accrued retirement benefits					$	1,651,685

The Accumulated Benefit Obligation for the Pension Benefits was $3,766,340,000 and $3,354,141,000 at June 30, 2020 and 2019, respectively.

Net Periodic Benefit Cost

The components of net periodic benefit cost for pension benefits and other postretirement benefits are detailed below (in thousands). In the Consolidated Statements of Activities, service cost is reported as Compensation and benefits while the remaining components of net periodic benefit cost are reported as Pension, OPEB and other, net.

2020		Pension Benefits		Other Postretirement Benefits		Total
Net Periodic Cost						
Service cost	$	77,085	$	35,476	$	112,561
Interest cost		136,674		38,148		174,822
Expected return on plan assets		(184,845)		(39,251)		(224,096)
Amortization of:						
Net prior service cost				(387)		(387)
Net losses		53,500		6,992		60,492
Net periodic benefit cost	$	82,414	$	40,978	$	123,392

2019	Pension Benefits	Other Postretirement Benefits	Total
Net Periodic Cost			
Service cost	$ 68,923	$ 30,269	$ 99,192
Interest cost	139,344	38,741	178,085
Expected return on plan assets	(169,595)	(37,969)	(207,564)
Amortization of:			
Net prior service cost		(386)	(386)
Net losses	30,968	2,447	33,415
Net periodic benefit cost	$ 69,640	$ 33,102	$ 102,742

Net Assets Without Donor Restrictions

The University recorded the following year-end valuation adjustments to its Pension and Other Postretirement Benefit Plans in Pension, OPEB and Other, net in the Consolidated Statements of Activities (in thousands):

2020	Pension Benefits	Other Postretirement Benefits	Total
Net Assets Without Donor Restrictions			
Net actuarial loss	$ 1,251,922	$ 239,885	$ 1,491,807
Net prior service cost/(credit)		(2,372)	(2,372)
Total	$ 1,251,922	$ 237,513	$ 1,489,435
Adjustment to net assets without donor restrictions (gain)/loss	$ 323,237	$ 45,107	$ 368,344

2019	Pension Benefits	Other Postretirement Benefits	Total
Net Assets Without Donor Restrictions			
Net actuarial loss	$ 928,685	$ 195,165	$ 1,123,850
Net prior service cost/(credit)		(2,759)	(2,759)
Total	$ 928,685	$ 192,406	$ 1,121,091
Adjustment to net assets without donor restrictions (gain)/loss	$ 342,879	$ 80,077	$ 422,956

The estimated amount that will be amortized from Net assets without donor restrictions into net periodic benefit cost in 2021 is as follows (in thousands):

	Pension Benefits	Other Postretirement Benefits
Amortization of prior service credit		$ (387)
Amortization of net losses	$ 77,225	9,765

Actuarial Assumptions

The expected long-term rate of return on plan assets is management's best estimate of the average investment return expected to be received on the assets invested in the plan over the benefit period. The expected long-term rate of return on plan assets has been established by considering historical and future expected returns of the asset classes invested in by the pension trust, and the allocation strategy currently in place among those classes.

	Pension Benefits		Other Postretirement Benefits	
Weighted-Average Assumptions Used to Determine Benefit Obligations at Year End	**2020**	**2019**	**2020**	**2019**
Discount rate	3.05%	3.72%	3.28%	3.81%
Salary increase	3.22%	3.92%	N/A	N/A
Weighted-Average Assumptions Used to Determine Net Periodic Benefit Cost				
Discount rate	3.72%	4.26%	3.81%	4.29%
Expected long-term return on plan assets	7.26%	7.30%	7.50%	7.50%
Salary increase	4.03%	3.80%	N/A	N/A
Assumed Health Care Cost Trend Rates				
Initial trend rate	N/A	N/A	6.24%	6.28%
Ultimate trend rate	N/A	N/A	4.72%	4.71%
Fiscal year end that ultimate trend rate is reached	N/A	N/A	2037	2037

Assumed health care cost trend rates have a significant effect on the amounts reported for the Other postretirement benefits. A one-percentage-point change in assumed health care trend rates would have the following effects on Other postretirement benefits (in thousands):

	1-Percentage Point Increase	1-Percentage Point Decrease
2020		
Effect on total of service and interest cost	$ 20,125	$ (14,723)
Effect on APBO	224,798	(172,029)

Expected Contributions

The University expects to contribute $133,894,000 and $31,171,000 for pension benefits and other postretirement benefits, respectively, during the fiscal year ending June 30, 2021.

Expected Benefits Payments (in thousands):

Expected benefit payments for the year ending:	Pension Benefits	Other Postretirement Benefits before Medicare Part D Subsidy	Impact of Medicare Part D Subsidy
June 30, 2021	$ 127,688	$ 28,197	$ 152
June 30, 2022	133,421	30,055	156
June 30, 2023	141,527	32,073	159
June 30, 2024	150,171	34,162	162
June 30, 2025	158,907	36,129	165
June 30, 2026 to June 30, 2030	915,914	209,711	852

Plan Assets and Allocations

The principal investment objectives for the pension and other postretirement benefits plans are to ensure the availability of funds to pay pension benefits as they become due under a broad range of future economic scenarios, to maximize long-term investment returns with an acceptable level of risk based on the pension obligations, and to invest the pension trust in a diversified manner.

The University's Office of Investments is responsible for the day-to-day management of the majority of the investments of the pension and other postretirement benefits. The investments are made in accordance with policies set out by the Investment Board which has been appointed by the Trustees. The pension and other postretirement benefit investments are similar in nature to those investments discussed in Notes 1 and 6 – Investments, at Fair Value. However, the actual allocations to specific investments within each asset class may vary due to certain restrictions imposed by investment managers and ERISA regulations.

A summary of plan assets, measured at fair value, as of June 30, 2020 and 2019, is as follows (in thousands):

Pension Benefits:

Assets	Level 1	Level 2	Level 3	Investments at NAV	2020
Short-term	$ 49,251				$ 49,251
Equity:					
US equities	197,651	$ 949		$ 195,134	393,734
International equities	143,448			225,478	368,926
Emerging market equities	135			158,366	158,501
Debt:					
US treasuries	250,287	10,160		1,944	262,391
Corporate bonds	121,245	114,848		211,629	447,722
Absolute return				660,490	660,490
Real estate				76,464	76,464
Private equity	2,016			261,780	263,796
Natural resources	51,196			60,232	111,428
Total assets	$ 815,229	$ 125,957	$ -	$ 1,851,517	$ 2,792,703

Liabilities	Level 1	Level 2	Level 3	Investments at NAV	2020
Derivative instruments		$ 368			$ 368
Total liabilities	$ -	$ 368	$ -	$ -	$ 368

Assets	Level 1	Level 2	Level 3	Investments at NAV	2019
Short-term	$ 68,135				$ 68,135
Equity:					
US equities	224,330	$ 459		$ 165,882	390,671
International equities	126,403			234,903	361,306
Emerging market equities	191			163,689	163,880
Debt:					
US treasuries	358,601	7,699		1,301	367,601
Corporate bonds	85,863	79,915		188,261	354,039
Absolute return				547,478	547,478
Real estate				60,890	60,890
Private equity	2,611			221,968	224,579
Natural resources	68,499			89,928	158,427
Total assets	$ 934,633	$ 88,073	$ -	$ 1,674,300	$ 2,697,006

Liabilities	Level 1	Level 2	Level 3	Investments at NAV	2019
Derivative instruments		$ 266			$ 266
Total liabilities	$ -	$ 266	$ -	$ -	$ 266

Other Postretirement Benefits:

Assets	Level 1	Level 2	Level 3	Investments at NAV	2020
Short-term	$ 28,467				$ 28,467
Equity:					
US equities	4,685			$ 67,369	72,054
International equities				82,376	82,376
Emerging market equities	70			43,251	43,321
Debt:					
US treasuries	20,692				20,692
Corporate bonds				11,077	11,077
Absolute return				185,917	185,917
Real estate				33,203	33,203
Private equity				59,059	59,059
Natural resources	12,122			6,781	18,903
Total	$ 66,036	$ -	$ -	$ 489,033	$ 555,069

Liabilities	Level 1	Level 2	Level 3	Investments at NAV	2020
Derivative instruments		$ 118			$ 118
Total	$ -	$ 118	$ -	$ -	$ 118

Assets	Level 1	Level 2	Level 3	Investments at NAV	2019
Short-term	$ 25,184				$ 25,184
Equity:					
US equities				$ 62,356	62,356
International equities				79,723	79,723
Emerging market equities	4,409			48,233	52,642
Debt:					
US treasuries	22,771				22,771
Corporate bonds				10,702	10,702
Absolute return				165,196	165,196
Real estate				24,102	24,102
Private equity				47,373	47,373
Natural resources	22,752			9,629	32,381
Total	$ 75,116	$ -	$ -	$ 447,314	$ 522,430

Liabilities	Level 1	Level 2	Level 3	Investments at NAV	2019
Derivative instruments		$ 65			$ 65
Total	$ -	$ 65	$ -	$ -	$ 65

As of June 30, 2020, the University has unfunded commitments to limited partnerships totaling $270,012,000, which are expected to be called over the next 5 years.

Transfers between leveled assets are based on the actual date of the event which caused the transfer. As of June 30, 2020 and 2019 there were no transfers between Level 1 and 2.

Plan asset allocations by category are as follows:

2020 Allocation of Plan Assets	Pension Benefits Target	 Actual	Other Postretirement Benefits Target	 Actual
Short-term	0.0%	1.8%	0.0%	5.1%
Equity:				
US equities	12.2%	14.1%	10.0%	13.0%
International equities	13.1%	13.2%	16.0%	14.8%
Emerging markets equities	6.0%	5.7%	10.0%	7.8%
Debt:				
US treasuries	23.9%	9.4%	7.0%	3.7%
Corporate bonds	3.5%	16.0%	0.0%	2.0%
Absolute return	22.1%	23.7%	34.0%	33.5%
Real estate	2.7%	2.7%	4.0%	6.0%
Private equity	9.2%	9.4%	9.0%	10.7%
Natural resources	7.3%	4.0%	10.0%	3.4%
Total	100.0%	100.0%	100.0%	100.0%

12. Debt Obligations

Debt obligations at June 30, 2020 and 2019 are as follows (in thousands):

	Final Maturity	Effective Interest Rate at June 30, 2020	2020	2019
Academic Component:				
Fixed rate debt obligations:				
The Trustees of the University of Pennsylvania				
Series A of 2019 revenue bonds	02/2119	3.61%	$ 300,000	
Series 2012 Taxable Bonds	09/2112	4.67%	300,000	$ 300,000
Pennsylvania Higher Educational Facilities Authority (PHEFA)				
Series B of 2019 revenue bonds	02/2045	2.40% - 2.97%	213,585	
Series A of 2018 revenue bonds	08/2048	2.08% - 4.70%	183,145	183,145
Series A of 2017 revenue bonds	08/2046	2.26% - 3.72%	178,395	178,395
Series A of 2016 revenue bonds	08/2041	1.08% - 2.93%	120,680	167,435
Series A of 2015 revenue bonds	10/2045	1.40% - 2.63%	49,125	191,090
Series B of 2015 revenue bonds	10/2038	1.40% - 3.38%	159,460	160,950
Series C of 2015 revenue bonds	10/2035	3.68%	8,020	8,020
Series A of 2011 revenue bonds	09/2021	3.49% - 3.68%	7,590	7,590
Series of 2010 revenue bonds	09/2033			16,935
Series B of 2009 revenue bonds	09/2020	3.99%	2,245	4,435
Series C of 2009 revenue bonds	09/2019			4,095
Other loans	05/2031	3.00% - 4.50%	21,468	12,774
Variable rate debt obligations:				
PHEFA Series of 1990 revenue bonds	12/2020	0.36%	6,500	6,500
Washington County Authority Series of 2004	07/2034	0.01%	48,900	51,200
Total Academic Component outstanding bonds payable			1,599,113	1,292,564
Unamortized issuance costs, premiums and discounts, net			66,130	83,910
Total Academic Component debt obligations			$ 1,665,243	$ 1,376,474
UPHS:				
Fixed rate debt obligations:				
Lancaster County Hospital Authority (LCHA)				
Series A of 2016 revenue bonds	08/2042	1.25% - 3.52%	$ 156,455	$ 160,590
Series B of 2016 revenue bonds	08/2046	1.43% - 3.58%	128,050	128,050
PHEFA				
Series A of 2019 revenue bonds	08/2049	1.67% - 3.22%	534,870	
Series A of 2017 revenue bonds	08/2047	2.60% - 3.68%	400,000	400,000
Series C of 2016 revenue bonds	08/2041	0.94% - 3.08%	128,435	128,730
Series A of 2015 revenue bonds	08/2045	1.60% - 4.00%	257,495	278,975
Series A of 2012 revenue bonds	08/2042	2.27% - 4.08%	134,650	136,360
Series A of 2009 revenue bonds	08/2021	4.52% - 4.67%	12,115	22,780
New Jersey Health Care Facilities Financing Authority (NJHCFFA)				
Princeton Healthcare System Series A of 2016	07/2039	1.70% - 3.88%	173,660	178,670
University of Pennsylvania Health System Taxable Note	08/2047	4.01%	200,000	200,000
Lancaster General Hospital 2015 Taxable Note	08/2022	2.66%	67,798	70,335
Build to suit lease, net of related interest	Various	Various		75,094
Line of credit, outstanding balance	Various	Various		87,000
Mortgages, notes and other	Various	Various	160,914	76,312
Variable rate debt obligations:				
PHEFA Series A of 2014 revenue bonds	08/2044	1.30%	100,000	100,000
PHEFA Series A of 2008 revenue bonds	08/2038	0.12%	69,995	69,995
NJHCFFA Princeton Healthcare System Series B of 2016	07/2045	0.66%	65,000	65,000
NJHCFFA Princeton Healthcare System Series C of 2016	07/2045	0.67%	20,000	20,000
Total UPHS outstanding bonds payable			2,609,437	2,197,891
Unamortized issuance costs, premiums and discounts, net			181,480	132,128
Total UPHS debt obligations			2,790,917	2,330,019
Total University debt obligations			$ 4,456,160	$ 3,706,493

Contractual maturities of debt obligations are as follows (in thousands):

Fiscal Year	Academic Component	UPHS	Total
2021	$ 28,837	$ 98,663	$ 127,500
2022	25,455	54,266	79,721
2023	26,520	116,629	143,149
2024	35,151	58,712	93,863
2025	29,128	62,006	91,134
Thereafter	1,454,022	2,219,161	3,673,183
Total Principal	1,599,113	2,609,437	4,208,550
Unamortized issuance costs, premiums & discounts	66,130	181,480	247,610
Total debt obligation	$ 1,665,243	$ 2,790,917	$ 4,456,160

The University has letters of credit with various financial institutions to secure certain self-insured liabilities totaling $19,096,000 and $15,540,000 at June 30, 2020 and 2019, respectively, of which $8,843,000 and $7,829,000 were issued under a line of credit. The letters of credit have evergreen provisions for automatic renewal. There have been no draws under the letters of credit.

Academic Component

On August 6, 2019, the Trustees of the University of Pennsylvania (the "University") issued Taxable Bonds, Series A of 2019 in the aggregate principal amount of $300,000,000. The proceeds of the sale of the Series A of 2019 Bonds will be used by the University for its general corporate purposes, including the financing or refinancing of capital projects and the payment of the cost of issuing the Series A of 2019 Bonds. Interest on the Series A of 2019 is fixed with coupons of 3.61%.

On August 14, 2019, Pennsylvania Higher Educational Facilities Authority (PHEFA) issued Series B of 2019 Taxable Refunding Revenue Bonds (PHEFA 2019B bonds) with an aggregate principal amount of $213,585,000. The proceeds were used to fund an escrow which will be used to refund $16,935,000 from the PHEFA Series 2010 revenue bonds, $136,745,000 PHEFA Series A of 2015, and $45,570,000 from the PHEFA Series A of 2016. The refunded bonds were legally defeased, and as such are no longer included among the University's reported liabilities. Interest on the PHEFA 2019B bonds is fixed with coupons ranging between 2.40% to 2.97%.

As a result of the legal defeasance of debt associated with the issuance of PHEFA 2019B bonds, the University reported a loss on early extinguishment of debt in Pension, OPEB and other net on the Consolidated Statements of Activities in the amount of $3,618,000 for the year ended June 30, 2020.

On October 18, 2018, PHEFA issued Series A of 2018 revenue bonds (PHEFA 2018A bonds) with an aggregate principal amount of $183,145,000. The proceeds were used to fund or reimburse the University for the cost of various capital projects. Interest on the PHEFA 2018A bonds is fixed with coupons ranging between 3.25% to 5.00%.

The University has variable rate debt in the amount of $55,400,000 which is subject to optional tender by the holders upon seven days' notice. These bonds are reflected in the table above based on original scheduled maturities. In the event that the University receives notice of any optional tender on its variable rate demand bonds, the purchase price will be repaid from the remarketing of the bonds. However, in the event that the entire remarketing effort were to fail, the University would have the general obligation to purchase the bonds.

On June 14, 2016, the University entered into a five-year agreement with a financial institution, whereby the institution has agreed to provide a line of credit in the amount of $100,000,000 for general purposes of the University. The University pays a fee annually on the unused amount of the line of credit. As of June 30, 2020, $1,000,000 has been drawn under the agreement.

UPHS

The PHEFA Revenue Bonds, Lancaster County Hospital Authority (LCHA) Revenue Bonds and New Jersey Health Care Facilities Financing Authority (NJHCFFA) Revenue Bonds are secured by master notes issued under the UPHS Master Trust Indenture (MTI). The MTI and related agreements contain certain restrictive covenants which limit the issuance of additional indebtedness, and among other things, require UPHS to meet an annual debt service coverage requirement of "income available for debt service" (excess of revenue over expenses plus depreciation, amortization, interest expense and extraordinary items) at an amount equal to 110% of the annual debt service requirements. If the coverage requirement for a particular year is not met, within six months of the close of that fiscal year, UPHS must retain the services of a consultant to make recommendations to improve the coverage requirement. UPHS must also implement the recommendations of the consultant to the extent that they can be feasibly implemented. UPHS will not be considered to be in default of the provisions of the MTI so long as UPHS has sufficient cash flow to pay total operating expenses and debt service for the fiscal year. In both 2020 and 2019, UPHS met its debt service coverage requirement under the MTI. Additionally, UPHS has pledged its gross revenues to secure its obligation under the MTI.

On December 5, 2019, Pennsylvania Higher Educational Facilities Authority (PHEFA) issued UPHS Series A of 2019 revenue bonds in an aggregate principal amount of $534,870,000. The proceeds were used to reimburse UPHS for $484,738,000 million incurred in relation to various capital projects, and $112,276,000 million of the remaining proceeds, including the issued premium, were deposited in a capital project fund held by trustee to be drawn upon for future capital expenditures. This portion of the financing is reflected as a noncash transaction in the Statement of Cash Flows. Future reimbursements from the capital project fund will be accounted for as a cash inflow from investing activities in the Statement of Cash Flows. The bonds have stated interest rates that range between 3.00% and 5.00%.

UPHS has variable rate debt in the amount of $69,995,000 which is subject to optional tender by the holders upon seven days' notice. These bonds are reflected in the debt obligations maturity table above based on original scheduled maturities. In the event that UPHS receives notice of any optional tender on its variable rate demand bonds, the purchase price will be repaid from the remarketing of the bonds. However, in the event that the entire remarketing effort were to fail, UPHS has in place a renewable direct pay letter of credit issued by Bank of America with an expiration date of April 15, 2023. In the event that the letter of credit cannot be drawn upon, UPHS would have the general obligation to purchase the bonds.

UPHS secured an $82,132,000 loan on December 21, 2018 for the sole purpose of funding the development of a new ambulatory building. As of June 30, 2020, the entire balance has been drawn down to reimburse construction costs incurred by UPHS and is accounted for as a cash inflow from investing activities in the Statement of Cash Flows.

Upon adoption of the new accounting standard for leases, UPHS derecognized a build-to-suit lease liability of $75,094,000 from Debt obligations with a corresponding asset of $67,307,000 from PPE, resulting in a gain of $8,022,000 recorded in Pension, OPEB and other, net. The remainder of the lease was accounted for as an operating lease under the new leasing guidance.

UPHS maintains lines of credit in the amount of $250,000,000 to supplement liquidity and issue letters of credit to cover balances due on construction projects and reinsurance agreements. On April 7, 2020, UPHS entered into a one-year agreement with a commercial bank for $150,000,000 line of credit which was immediately drawn down to provide additional liquidity during the COVID-19 pandemic. The remaining $100,000,000 has a maturity of April 13, 2022. The outstanding balance as of June 30, 2020 and 2019 was $0 and $87,000,000, respectively.

Interest Rate Swap Agreements

The University enters into interest rate swap agreements to synthetically modify the interest rate terms of its long term debt portfolio. These agreements are not entered into for trading or speculative purposes. Fair value of these agreements is determined by obtaining quotes from Goldman Sachs Mitsui Marine Derivative Products, L.P. (GSMMDP) and Merrill Lynch, respectively, which are based on the income approach, using observable market data to discount future net payment streams and accordingly considers this to be a Level 2 measurement. The quotes provided also represent the amount the University would accept or be required to pay to transfer the agreement to GSMMDP and Merrill Lynch, respectively, or exit price as defined by the Fair Value Measurements standard. The University also takes into account the risk of nonperformance.

The following table summarizes the terms of the University's remaining interest rate swap agreements (in thousands):

	Academic Component	UPHS		
Notional Amounts	$ 101,950	$ 21,550	$ 14,355	$ 14,355
Trade Date	11/6/2007	7/28/2006	7/15/2009	1/7/2010
Maturity Date	7/1/2034	7/1/2041	8/15/2023	8/15/2023
Rates:				
Receive	67% of 1-Month LIBOR	70% of 1-month LIBOR	3.184%	2.902%
Pay	3.573%	3.980%	SIFMA index	SIFMA index

The following tables summarize the fair value of the interest rate swap agreements, not designated as hedging instruments, as of June 30, 2020 and 2019, and the related gains/(losses) on the interest rate swap agreements, both realized and unrealized, for the years ended June 30, 2020 and 2019 (in thousands):

Consolidated Statements of Financial Position	**Line Item**	**2020**	**2019**
Asset interest rate swaps			
UPHS	Other assets	$ 1,425	$ 1,469
Total Asset interest rate swaps		$ 1,425	$ 1,469
Liability interest rate swaps			
Academic Component	Accrued expenses and other liabilities	$ 28,801	$ 21,379
UPHS	Accrued expenses and other liabilities	8,854	6,371
Total Liability interest rate swaps		$ 37,655	$ 27,750

Consolidated Statements of Activities	**Line Item**	**2020**	**2019**
Academic Component	Return on investments, net	$ (9,772)	$ (7,497)
UPHS	Return on investments, net	511	737
Total		$ (9,261)	$ (6,760)

13. Net Assets

The major components of net assets at June 30, 2020 and 2019 are as follows (in thousands):

2020		Without donor restrictions		With donor restrictions		Total
General operating	$	3,931,320	$	503,062	$	4,434,382
Sponsored programs		63,592				63,592
Capital				130,462		130,462
Student loans		7,713				7,713
Planned giving agreements				52,757		52,757
Quasi-endowment		7,363,736				7,363,736
Endowment, subject to spending rule				3,109,738		3,109,738
Endowment, held in perpetuity				4,403,889		4,403,889
Total	$	11,366,361	$	8,199,908	$	19,566,269

2019		Without donor restrictions		With donor restrictions		Total
General operating	$	4,085,420	$	449,779	$	4,535,199
Sponsored programs		44,217				44,217
Capital				133,693		133,693
Student loans		10,387				10,387
Planned giving agreements				51,576		51,576
Quasi-endowment		7,252,228				7,252,228
Endowment, subject to spending rule				3,203,289		3,203,289
Endowment, held in perpetuity				4,194,244		4,194,244
Total	$	11,392,252	$	8,032,581	$	19,424,833

14. Leases

The University leases research labs and office space under operating leases expiring through December 2043. Under the newly adopted accounting standard for leases, a lease conveys the right to control the use of an identified asset for a period of time in exchange for consideration. On the Consolidated Statements of Financial Position, lessees are required to record Right-of-Use assets, representing the right to use the underlying assets for the lease term, and Lease liabilities, representing the obligation to make lease payments arising from the lease based on the present value of lease payments over the lease term. The University has made the following elections: (1) to adopt a package of practical expedients relating to reassessment, (2) to exclude leases with a term of less than one year, and (3) to use an incremental borrowing rate for discounting leases, as applicable. At June 30, 2020, Right-of-Use assets recorded in Other assets were $438,368,000 and Lease liabilities recorded in Accrued expenses and other liabilities were $447,778,000. At June 30, 2020, the weighted average remaining lease term was 10.6 years and the weighted average discount rate was 3.55%. Rental expense, totaling $136,529,000 (including amortizations related to Right-of-Use assets and Lease liabilities of $68,189,000) and $120,960,000, for the years ended June 30, 2020 and 2019, respectively, is included in Other operating expenses on the Consolidated Statements of Activities.

Future maturities of lease liabilities at June 30, 2020 are as follows (in thousands):

Year ending June 30,		
2021	$	70,862
2022		64,262
2023		54,887
2024		50,878
2025		45,651
Thereafter		267,196
Total lease payments	$	553,736
Less imputed interest		(105,958)
Total Future lease payments	$	447,778

Future minimum lease payments at June 30, 2019 (prior to newly adopted standard) were as follows (in thousands):

Year ending June 30,		
2020	$	101,735
2021		88,750
2022		78,748
2023		67,668
2024		63,082
Thereafter		310,212
Total minimum lease payments	$	710,195

15. Functional Classification of Expenditures

Expenses for the years ended June 30, 2020 and 2019 are categorized on a functional basis as follows (in thousands):

2020	Instruction, student services & academic support	Hospital & physician practices	Research	Institutional support	Enterprises & independent operations	Total
Compensation and benefits	$ 1,095,779	$ 4,256,950	$ 490,783	$ 266,324	$ 203,832	$ 6,313,668
Depreciation and amortization	88,149	324,642	44,648	20,510	57,054	535,003
Interest on indebtedness	16,027	36,741	23,637	207	11,148	87,760
Other operating expense	532,648	2,929,459	332,312	42,231	171,605	4,008,255
Total operating expense	1,732,603	7,547,792	891,380	329,272	443,639	10,944,686
Non-service net periodic benefit cost	1,880	7,302	842	457	350	10,831
Total	$ 1,734,483	$ 7,555,094	$ 892,222	$ 329,729	$ 443,989	$ 10,955,517

2019	Instruction, student services & academic support	Hospital & physician practices	Research	Institutional support	Enterprises & independent operations	Total
Compensation and benefits	$ 1,044,075	$ 4,026,781	$ 466,938	$ 257,576	$ 195,821	$ 5,991,191
Depreciation and amortization	86,651	332,813	43,898	20,147	56,726	540,235
Interest on indebtedness	7,789	54,492	23,665	296	8,568	94,810
Other operating expense	564,089	2,727,834	347,405	44,087	189,287	3,872,702
Total operating expense	1,702,604	7,141,920	881,906	322,106	450,402	10,498,938
Non-service net periodic benefit cost	619	2,386	277	153	115	3,550
Total	$ 1,703,223	$ 7,144,306	$ 882,183	$ 322,259	$ 450,517	$ 10,502,488

Operation and maintenance of PPE and depreciation are allocated to functional classifications based on square footage. Interest expense is generally allocated to functional classifications of the activity that directly benefited from the proceeds of the debt. Non-service net periodic benefit cost is allocated to functional classifications based on compensation and benefits.

16. Liquidity and Availability

As of June 30, 2020 and 2019, respectively, financial assets and liquidity resources available within one year for general expenditure, such as operating expenses, scheduled principal payments on debt and capital construction costs not financed with debt, were as follows (in thousands):

	2020	2019
Financial assets:		
Cash & cash equivalents	$ 2,117,979	$ 1,375,469
Receivables, net	1,213,513	1,217,065
Pledge payments available for operations	65,559	75,598
Investments	7,103,005	7,958,710
Total financial assets available within one year	10,500,056	10,626,842
Liquidity resources:		
Bank lines of credit	340,157	113,000
Total financial assets and liquidity resources available within one year	$ 10,840,213	$ 10,739,842

The University's cash flows have seasonal variations during the year attributable to tuition billing, patient service reimbursement and a concentration of contributions received at calendar and fiscal year-end. To manage liquidity, the University maintains lines of credit with several banks that are drawn upon as needed during the year to manage cash flows. Management has the discretion to utilize the full amount of quasi-endowment funds for general expenditures.

17. Subsequent Events

The University has evaluated subsequent events for the period from June 30, 2020 through October 7, 2020, the date the consolidated financial statements were issued.

On July 14, 2020, the University issued Taxable Bonds, Series A of 2020 in the aggregate principal amount of $300,000,000. The proceeds of the sale of the Series A of 2020 Bonds will be used by the University for its general corporate purposes, including the financing or refinancing of capital projects and the payment of the cost of issuing the Series A of 2020 Bonds. Interest on the Series A of 2020 is fixed with coupons of 2.396%.