

NEW ISSUE – Book-Entry-Only

Ratings: Moody's: Aaa
S&P: AAA
 (See "RATINGS" herein)

In the opinion of Hinckley, Allen & Snyder LLP, Bond Counsel, based upon an analysis of existing law and assuming, among other matters, compliance with certain covenants, interest on the Bonds is excluded from gross income for federal income tax purposes under the Internal Revenue Code of 1986, as amended (the "Code"). Interest on the Bonds is not a specific preference item for purposes of the federal alternative minimum tax. Under existing law, interest on the Bonds and any profit on the sale of the Bonds are exempt from Massachusetts personal income taxes and the Bonds are exempt from Massachusetts personal property taxes. Bond Counsel expresses no opinion regarding any other tax consequences related to the ownership or disposition of, or the accrual or receipt of interest on, the Bonds. See "TAX EXEMPTION" herein.

\$207,830,000



MASSACHUSETTS DEVELOPMENT FINANCE AGENCY
Revenue Bonds
Harvard University Issue, Series 2022B
(Green Bonds)



Dated: Date of Delivery

Due: As shown on the inside cover

The Bonds (as defined herein) will be issued only as fully-registered bonds without coupons and, when issued, will be registered in the name of Cede & Co., as Bondowner and nominee for The Depository Trust Company, New York, New York ("DTC"). Purchases of the Bonds will be made in book-entry-only form. So long as Cede & Co. is the Bondowner, as nominee of DTC, references herein to the Bondowners or registered owners shall mean Cede & Co., as aforesaid, and shall not mean the Beneficial Owners of the Bonds. The Bonds will be issued in minimum denominations of \$5,000 and whole multiples thereof. The Bank of New York Mellon Trust Company, N.A. will act as Trustee.

Principal and semiannual interest on the Bonds will be paid by the Trustee. So long as DTC or its nominee, Cede & Co., is the Bondowner, such payments will be made directly to such Bondowner, as more fully described herein. Interest on the Bonds will be payable on November 15, 2022, and semiannually thereafter on each May 15 and November 15 to the Bondowners of record as of the close of business on the first day of the month of such interest payment date.

The Bonds are not subject to redemption prior to maturity. See "THE BONDS—Redemption" herein.



The Bonds shall be special obligations of the Massachusetts Development Finance Agency (the "Issuer") payable solely from the Revenues of the Issuer paid to the Trustee for the account of the Issuer by President and Fellows of Harvard College (the "Institution") in accordance with the provisions of the Loan and Trust Agreement, dated as of May 1, 2022 (the "Agreement"), among the Issuer, the Institution and the Trustee. The payments pursuant to the Agreement are a general obligation of the Institution. The Bonds have been designated as "Green Bonds" and the proceeds of the Bonds are expected to be used to finance and refinance certain capital "Green Projects," including repaying a portion of the Institution's commercial paper program that was used to finance such "Green Projects," as more fully described under "PLAN OF FINANCE" herein.

THE BONDS DO NOT CONSTITUTE A GENERAL OBLIGATION OF THE ISSUER OR A DEBT OR PLEDGE OF THE FAITH AND CREDIT OF THE COMMONWEALTH OF MASSACHUSETTS OR ANY POLITICAL SUBDIVISION THEREOF. THE PRINCIPAL AND REDEMPTION PRICE OF AND INTEREST ON THE BONDS ARE PAYABLE SOLELY FROM THE REVENUES AND FUNDS PLEDGED FOR THEIR PAYMENT UNDER THE AGREEMENT. THE ISSUER HAS NO TAXING POWER UNDER THE ACT.

The Bonds are offered when, as and if issued and received by the Underwriters, subject to prior sale, to withdrawal or modification of the offer without notice, and to the approval of their legality and certain other matters by Hinckley, Allen & Snyder LLP, Boston, Massachusetts, Bond Counsel to the Issuer. Certain legal matters will be passed upon for the Institution by its counsel, Ropes & Gray LLP, Boston, Massachusetts, and for the Underwriters by its counsel, Orrick, Herrington & Sutcliffe LLP, New York, New York. It is expected that the Bonds will be available in definitive form for delivery to DTC in New York, New York or its custodial agent on or about May 17, 2022.

Goldman Sachs & Co. LLC
J.P. Morgan
Barclays
American Veterans Group, PBC
Morgan Stanley
BofA Securities

Loop Capital Markets
Wells Fargo Securities
Citigroup
AmeriVet Securities
TD Securities

Dated: April 20, 2022

MATURITY SCHEDULE

\$207,830,000
MASSACHUSETTS DEVELOPMENT FINANCE AGENCY
Revenue Bonds
Harvard University Issue, Series 2022B
(Green Bonds)

Due (November 15)	Amount	Interest Rate	Yield	Price	CUSIP Number [†]
2032	\$207,830,000	5.00%	2.760%	120.288%	57584Y2Y4

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IN CONNECTION WITH THE OFFERING OF THE BONDS, THE UNDERWRITERS MAY OVER ALLOT OR EFFECT TRANSACTIONS THAT STABILIZE OR MAINTAIN THE MARKET PRICE OF THE BONDS AT LEVELS ABOVE THOSE WHICH MIGHT OTHERWISE PREVAIL IN THE OPEN MARKET. SUCH STABILIZING, IF COMMENCED, MAY BE DISCONTINUED AT ANY TIME. THE UNDERWRITERS MAY OFFER AND SELL THE BONDS TO CERTAIN DEALERS (INCLUDING DEALERS DEPOSITING BONDS INTO INVESTMENT TRUSTS) AND DEALER BANKS AND OTHERS AT PRICES LOWER THAN THE PUBLIC OFFERING PRICE STATED ON THE COVER PAGE HEREOF AND SAID OFFERING PRICES MAY BE CHANGED FROM TIME TO TIME BY THE UNDERWRITERS.

No dealer, broker, salesperson or other person has been authorized by the Issuer, the Institution or the Underwriters to give any information or to make any representations with respect to the Bonds, other than those contained in this Official Statement and the Appendices hereto, and if given or made, such other information or representations must not be relied upon as having been authorized by any of the foregoing. This Official Statement does not constitute an offer to sell or the solicitation of an offer to buy, and there shall not be any sale of the Bonds by any person in any jurisdiction in which it is unlawful for such person to make such offer, solicitation or sale. The Issuer neither has nor assumes any responsibility as to the accuracy or completeness of the information contained in this Official Statement, other than that appearing under the captions "THE ISSUER" and "LEGAL MATTERS" (but only insofar as it relates to the Issuer). The information and expressions of opinion herein are subject to change without notice, and neither the delivery of this Official Statement nor any sale made hereunder shall, under any circumstances, create any implication that there has been no change in the matters described herein since the date hereof.

Certain information contained herein has been obtained from the Institution, The Depository Trust Company, and other sources which are believed to be reliable, but is not guaranteed as to accuracy or completeness, and is not to be construed as a representation of the Issuer or the Underwriters. The Underwriters have provided the following sentence for inclusion in this Official Statement. The Underwriters have reviewed the information in this Official Statement in accordance with, and as part of, their responsibility to investors under the federal securities laws as applied to the facts and circumstances of this transaction, but the Underwriters do not guarantee the accuracy or completeness of such information. The information herein relating to the Institution and its affairs and condition has been provided by such entity, and none of the Issuer or the Underwriters make any representation with respect to or warrants the accuracy of such information. The information and expressions of opinion herein are subject to change without notice and neither the delivery of this Official Statement nor any sale made hereunder shall, under any circumstances, create any implication that there has been no change in the affairs of the parties referred to above since the date hereof.

The Institution has agreed to enter into a Continuing Disclosure Agreement pursuant to which the Institution will provide certain continuing disclosure to the extent required by law. The purpose of the Continuing Disclosure Agreement is to assist the Underwriters in complying with Rule 15c2-12, as amended, of the Securities and Exchange Commission. See "CONTINUING DISCLOSURE" herein.

This Official Statement is submitted in connection with the sale of securities referred to herein and may not be used, in whole or in part, for any other purpose. The information and expression of opinions set forth herein are subject to change without notice and neither the delivery of this Official Statement nor any sale made hereunder shall, under any circumstances, create any implication that there has been no change in the affairs of the parties referred to above since the date hereof. The order and placement of materials in this Official Statement, including the Appendices, are not deemed to be a determination of relevance, materiality or importance, and this Official Statement, including the Appendices, must be considered in its entirety.

UPON ISSUANCE, THE BONDS WILL NOT BE REGISTERED UNDER THE SECURITIES ACT OF 1933, AS AMENDED, OR UNDER ANY STATE SECURITIES LAW, AND THE AGREEMENT HAS NOT BEEN QUALIFIED UNDER THE TRUST INDENTURE ACT OF 1939, AS AMENDED, IN RELIANCE UPON THE EXEMPTIONS CONTAINED IN SUCH ACTS. THE BONDS WILL NOT BE LISTED ON ANY STOCK OR OTHER SECURITIES EXCHANGE AND NEITHER THE UNITED STATES SECURITIES AND EXCHANGE COMMISSION NOR ANY OTHER FEDERAL, STATE OR GOVERNMENTAL ENTITY OR AGENCY WILL HAVE PASSED UPON THE ACCURACY OR ADEQUACY HEREOF. ANY REPRESENTATION TO THE CONTRARY IS A CRIMINAL OFFENSE.

This Official Statement, including Appendix A, contains statements which should be considered “forward-looking statements,” meaning they refer to possible future events or conditions. Such statements are generally identifiable by the words such as “plan,” “expect,” “estimate,” “budget” or similar words. The achievement of certain results or other expectations contained in such forward-looking statements involve known and unknown risks, uncertainties and other factors which may cause actual results, performance or achievements described to be materially different from any future results, performance or achievements expressed or implied by such forward-looking statements. Neither the Issuer nor the Institution expect or intend to issue any updates or revisions to those forward-looking statements if or when its expectations, or events, conditions or circumstances on which such statements are based occur.

References to website addresses presented herein are for informational purposes only and may be in the form of a hyperlink solely for the reader’s convenience. Unless specified otherwise, such websites and the information or links contained therein are not incorporated into, and are not part of, this Official Statement for the purposes of Rule 15c2-12 by the Securities and Exchange Commission under the Securities Exchange Act of 1934.

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OFFICIAL STATEMENT
Relating to
\$207,830,000
MASSACHUSETTS DEVELOPMENT FINANCE AGENCY
Revenue Bonds
Harvard University Issue, Series 2022B
(Green Bonds)

INTRODUCTION

Purpose of this Official Statement

This Official Statement, including the cover page, and appendices hereto, sets forth certain information in connection with the issuance and sale of the Revenue Bonds, Harvard University Issue, Series 2022B (Green Bonds) (the “Bonds”) of the Massachusetts Development Finance Agency (the “Issuer”), a body corporate and politic and a public instrumentality of The Commonwealth of Massachusetts (the “Commonwealth”). The Issuer is authorized under Chapter 23G and, to the extent incorporated therein, Chapter 40D of the Massachusetts General Laws (said Chapters, collectively and as amended, the “Act”), and pursuant to a resolution of the Issuer adopted on April 14, 2022 (the “Resolution”), to issue the Bonds. The Bonds will be issued under a Loan and Trust Agreement dated as of May 1, 2022 (the “Agreement”) by and among the Issuer, President and Fellows of Harvard College (the “Institution”) and The Bank of New York Mellon Trust Company, N.A., as Trustee (the “Trustee”).

The information contained in this Official Statement is provided for use in connection with the initial sale of the Bonds. The definitions of certain terms used and not defined herein are contained in Appendix C – “DEFINITIONS OF CERTAIN TERMS AND SUMMARY OF CERTAIN PROVISIONS OF THE AGREEMENT.”

Plan of Financing

The Bonds have been designated as “Green Bonds” and the proceeds of the Bonds will be used to finance and refinance certain “Green Projects,” including repaying a portion of the Institution’s commercial paper program that was used to finance such “Green Projects,” as more fully described under “PLAN OF FINANCING” herein. See also “DESIGNATION OF BONDS AS GREEN BONDS,” APPENDIX E – “GREEN BONDS INDEPENDENT SECOND PARTY OPINION,” and “ESTIMATED SOURCES AND USES” herein.

Designation of Bonds as Green Bonds

Kestrel Verifiers has determined that the Bonds are in conformance with the four core components of the International Capital Market Association Green Bond Principles (the “ICMA Green Bond Principles”), as described in Kestrel Verifiers’ Second Party Opinion, which is attached hereto as Appendix F (the “Independent Second Party Opinion”). See “DESIGNATION OF BONDS AS GREEN BONDS” and APPENDIX F – “GREEN BONDS INDEPENDENT SECOND PARTY OPINION” herein.

SOURCES OF PAYMENT AND SECURITY FOR THE BONDS

The Issuer, the Institution and the Trustee shall execute the Agreement, which provides that, to the extent permitted by law, the obligation of the Institution to make the payments thereunder is a general obligation of the Institution and that the full faith and credit of the Institution are pledged to its performance. The Agreement also provides, among other things, that the Institution shall make payments to the Trustee equal to principal and interest on the Bonds and certain other payments required by the Agreement. The Agreement shall remain in full force and effect until such time as all of the Bonds and the interest thereon have been fully paid or until adequate provision for such payments has been made. The obligation of the Institution to make payments under the Agreement is unsecured.

The Bonds are special obligations of the Issuer, equally and ratably secured by and payable from a pledge of and lien on, to the extent provided by the Agreement, the moneys received with respect to the Bonds by the Trustee for the account of the Issuer pursuant to the Agreement.

Under the Agreement, the Issuer assigns and pledges to the Trustee in trust upon the terms of the Agreement (i) all Revenues to be received from the Institution or derived from any security provided thereunder, (ii) all rights to receive such Revenues and the proceeds of such rights, (iii) all funds and investments held from time to time in the funds established under the Agreement and (iv) all of its right, title and interest in the Agreement, including enforcement rights and remedies but excluding certain rights of indemnification and to reimbursement of certain expenses as set forth in the Agreement. Under the Act, to the extent authorized or permitted by law, the pledge of Revenues is valid and binding from the time when such pledge is made and the Revenues and all income and receipts earned on funds held by the Trustee for the account of the Issuer shall immediately be subject to the lien of such pledge without any physical delivery thereof or further act, and the lien of such pledge shall be valid and binding as against all parties having claims of any kind in tort, contract or otherwise against the Issuer irrespective of whether such parties have notice thereof.

The assignment and pledge by the Issuer does not include (i) the rights of the Issuer pursuant to provisions of the Agreement for consent, concurrence, approval or other action by the Issuer, notice to the Issuer, or the filing of reports, certificates or other documents with the Issuer, (ii) the right of the Issuer to any payment or reimbursement pursuant to the Agreement or (iii) the powers of the Issuer as stated in the Agreement to enforce the rights set forth in subclauses (i) and (ii) of this sentence.

As additional security for its payment obligations under the Agreement, the Institution, pursuant to the Agreement, grants to the Trustee a security interest in the moneys and other investments and any proceeds thereof held in the funds established under the Agreement.

The Institution's payment obligations under the Agreement constitute unsecured general obligations of the Institution. Such payment obligations are not secured by a reserve fund, mortgage lien or security interest on or in any funds or other assets of the Institution. The Institution is not required to pay to the Trustee amounts necessary to pay the principal of and interest on the Bonds until the opening of business on the Business Day next preceding the date on which such payment is due; therefore, the funds held from time to time by the Trustee for the benefit of Bondowners under the Agreement are expected to be minimal.

The Institution has other unsecured general obligations outstanding. As of June 30, 2021, the Institution had approximately \$5.166 billion principal amount of indebtedness outstanding, including long-term debt and commercial paper. Subsequent to June 30, 2021, the Institution paid down approximately \$92 million principal amount of long-term debt and drew down an additional \$100 million of commercial paper, leaving approximately \$5.174 billion principal amount outstanding. On April 19,

2022, the Institution issued \$500,000,000 principal amount of its Taxable Bonds, Series 2022A (the “Series 2022A Bonds”), for general corporate purposes of the Institution and to pay costs of issuance of the Series 2022A Bonds. The Series 2022A Bonds are an unsecured general obligation of the Institution. Upon delivery of the Bonds, including the Series 2022A Bonds, and excluding the Commercial Paper (as defined herein) to be refinanced with the proceeds of the Bonds, the total outstanding principal amount of indebtedness is expected to be approximately \$5.824 billion. See, “PLAN OF FINANCING” herein.

The Institution is not restricted by the Agreement or otherwise from incurring additional indebtedness. Such additional indebtedness, if issued, may be either secured or unsecured and may be entitled to payment prior to the Institution’s payment obligations under the Agreement. The Agreement also does not contain any financial covenants limiting the ability of the Institution to encumber or dispose of its property or merge with any other entity, or any covenants. Further, the Institution is not required by the Agreement to produce revenues at any specified level or to obtain any insurance with respect to its property or operations.

Acceleration

The Trustee may declare all of the Bonds immediately due and payable prior to maturity at par, plus accrued interest, upon an Event of Default under the Agreement. See Appendix C – “DEFINITIONS OF CERTAIN TERMS AND SUMMARY OF CERTAIN PROVISIONS OF THE AGREEMENT – Events of Default.”

THE BONDS DO NOT CONSTITUTE A GENERAL OBLIGATION OF THE ISSUER OR A DEBT OR PLEDGE OF THE FAITH AND CREDIT OF THE ISSUER OR A DEBT OR PLEDGE OF THE FAITH AND CREDIT OF THE COMMONWEALTH OF MASSACHUSETTS OR ANY POLITICAL SUBDIVISION THEREOF. THE PRINCIPAL OR REDEMPTION PRICE OF AND INTEREST ON THE BONDS ARE PAYABLE SOLELY FROM THE REVENUES AND FUNDS PLEDGED FOR THEIR PAYMENT UNDER THE AGREEMENT. THE ISSUER HAS NO TAXING POWER UNDER THE ACT.

THE ISSUER

The Issuer is authorized and empowered under the laws of the Commonwealth, including the Act, to issue the Bonds for the purposes described herein and to enter into the Agreement and other agreements and instruments necessary to issue and secure the Bonds.

Except for the information contained herein under the caption “THE ISSUER” and “LITIGATION” insofar as it relates to the Issuer, the Issuer has not provided any of the information contained in this Official Statement. The Issuer is not responsible for and does not certify as to the accuracy or sufficiency of the disclosures made herein or any other information provided by the Institution, the Underwriters or any other person.

THE BONDS

Description of the Bonds

The Bonds will be issued in the aggregate principal amount set forth on the cover page hereof, will be dated the date of original issuance and will bear interest from such date, payable on November 15, 2022 and each May 15 and November 15 thereafter at the respective rates set forth on the cover page hereof and will mature as set forth on the cover page hereof. Interest on the Bonds will be calculated on the basis of twelve 30-day months for a 360-day year.

Subject to the provisions discussed under “—Book-Entry-Only System” below, the Bonds are issuable as fully-registered bonds without coupons in the minimum denomination of \$5,000 or any multiple thereof. Principal and redemption price of the Bonds will be payable at the principal corporate trust office of the Trustee, and interest on the Bonds will be paid by check or draft mailed to the registered owner as of the first (1st) day of the month in which interest is to be paid for the Bonds (the “Record Date”) or by wire transfer as provided in the Agreement.

Redemption

The Bonds are not subject to redemption prior to maturity.

Book-Entry-Only System

DTC will act as the securities depository for the Bonds. The Bonds will be issued as fully-registered securities registered in the name of Cede & Co. (DTC’s partnership nominee) or such other name as may be requested by an authorized representative of DTC. One fully-registered Bond certificate will be issued for each maturity of the Bonds, each in the aggregate principal amount of such maturity, and will be deposited with DTC.

DTC is a limited-purpose trust company organized under the New York Banking Law, a “banking organization” within the meaning of the New York Banking Law, a member of the Federal Reserve System, a “clearing corporation” within the meaning of the New York Uniform Commercial Code, and a “clearing agency” registered pursuant to the provisions of Section 17A of the Securities Exchange Act of 1934. DTC holds and provides asset servicing for over 3.5 million issues of U.S. and non-U.S. equity issues, corporate and municipal debt issues and money market instruments (from over 100 countries) that DTC’s participants (“Direct Participants”) deposit with DTC. DTC also facilitates the post-trade settlement among Direct Participants of sales and other securities transactions in deposited securities, through electronic computerized book-entry transfers and pledges between Direct Participants’ accounts. This eliminates the need for physical movement of securities certificates. Direct Participants include both U.S. and non-U.S. securities brokers and dealers, banks, trust companies, clearing corporations, and certain other organizations. DTC is a wholly-owned subsidiary of The Depository Trust & Clearing Corporation (“DTCC”). DTCC is the holding company for DTC, National Securities Clearing Corporation and Fixed Income Clearing Corporation, all of which are registered clearing agencies. DTCC is owned by the users of its regulated subsidiaries. Access to the DTC system is also available to others such as both U.S. and non-U.S. securities brokers and dealers, banks, trust companies, and clearing corporations that clear through or maintain a custodial relationship with a Direct Participant, either directly or indirectly (“Indirect Participants,” and together with Direct Participants, “Participants”). The DTC Rules applicable to its Participants are on file with the Securities and Exchange Commission. More information about DTC can be found at www.dtcc.com.

Purchases of the Bonds under the DTC system must be made by or through Direct Participants, which will receive a credit for the Bonds on DTC’s records. The ownership interest of each actual purchaser of each Bond (“Beneficial Owner”) is in turn to be recorded on the Direct and Indirect Participants’ records. Beneficial Owners will not receive written confirmation from DTC of their purchase. Beneficial Owners are, however, expected to receive written confirmations providing details of the transaction, as well as periodic statements of their holdings, from the Direct or Indirect Participant through which the Beneficial Owner entered into the transaction. Transfers of ownership interests in the Bonds are to be accomplished by entries made on the books of Direct and Indirect Participants acting on behalf of Beneficial Owners. Beneficial Owners will not receive certificates representing their ownership interests in the Bonds, except in the event that use of the book-entry system for the Bonds is discontinued.

To facilitate subsequent transfers, all Bonds deposited by Direct Participants with DTC are registered in the name of DTC's partnership nominee, Cede & Co., or such other name as may be requested by an authorized representative of DTC. The deposit of the Bonds with DTC and their registration in the name of Cede & Co. or such other DTC nominee do not effect any change in beneficial ownership. DTC has no knowledge of the actual Beneficial Owners of the Bonds; DTC's records reflect only the identity of the Direct Participants to whose accounts such Bonds are credited, which may or may not be the Beneficial Owners. The Direct and Indirect Participants will remain responsible for keeping account of their holdings on behalf of their customers.

Conveyance of notices and other communications by DTC to Direct Participants, by Direct Participants to Indirect Participants, and by Direct Participants and Indirect Participants to Beneficial Owners will be governed by arrangements among them, subject to any statutory or regulatory requirements as may be in effect from time to time.

Redemption notices shall be sent to DTC. If less than all of the Bonds within a maturity are being redeemed, DTC's practice is to determine by lot the amount of the interest of each Direct Participant in such maturity of Bonds to be redeemed.

Neither DTC nor Cede & Co. (nor any other DTC nominee) will consent or vote with respect to the Bonds unless authorized by a Direct Participant in accordance with DTC's MMI Procedures. Under its usual procedures, DTC mails an Omnibus Proxy to the Issuer as soon as possible after the Record Date. The Omnibus Proxy assigns Cede & Co.'s consenting or voting rights to those Direct Participants to whose accounts the Bonds are credited on the Record Date (identified in a listing attached to the Omnibus Proxy).

Payments of principal and redemption price of and interest on the Bonds will be made to Cede & Co. or such other nominee as may be requested by an authorized representative of DTC. DTC's practice is to credit Direct Participants' accounts upon DTC's receipt of funds and corresponding detail information from the Issuer or the Trustee, on the payable date in accordance with their respective holdings shown on DTC's records. Payments by Participants to Beneficial Owners will be governed by standing instructions and customary practices, as is the case with securities held for the accounts of customers in bearer form or registered in "street name," and will be the responsibility of such Participant and not of DTC, the Underwriters, the Trustee, the Institution or the Issuer, subject to any statutory or regulatory requirements as may be in effect from time to time. Payment of principal or redemption price of, and interest to Cede & Co. (or such other nominee as may be requested by an authorized representative of DTC) is the responsibility of the Issuer or the Trustee, disbursement of such payments to Direct Participants will be the responsibility of DTC, and disbursement of such payments to the Beneficial Owners will be the responsibility of Direct and Indirect Participants.

DTC may discontinue providing its services as securities depository with respect to the Bonds at any time by giving reasonable notice to the Issuer or the Trustee. Under such circumstances, in the event that a successor securities depository is not obtained, such Bond certificates are required to be printed and delivered. The Issuer may decide to discontinue use of the system of book-entry transfers through DTC (or a successor securities depository). In that event, the Bond certificates will be printed and delivered to DTC. See "Certificated Bonds" below.

The information herein concerning DTC and DTC's book-entry system has been obtained from sources that the Issuer, the Institution and the Underwriters believe to be reliable, but the Issuer, the Institution and the Underwriters take no responsibility for the accuracy thereof.

Each person for whom a Participant acquires an interest in the Bonds, as nominee, may desire to make arrangements with such Participant to receive a credit balance in the records of such Participant, and may desire to make arrangements with such Participant to have all notices of redemption or other communications to DTC, which may affect such persons, to be forwarded in writing by such Participant and to have notification made of all interest payments. NONE OF THE ISSUER, THE INSTITUTION, THE UNDERWRITERS OR THE TRUSTEE WILL HAVE ANY RESPONSIBILITY OR OBLIGATION TO SUCH PARTICIPANTS OR THE PERSONS FOR WHOM THEY ACT AS NOMINEES WITH RESPECT TO THE BONDS.

So long as Cede & Co. is the registered owner of the Bonds, as nominee for DTC, references herein to Bondowners or registered owners of the Bonds (other than under the heading "TAX EXEMPTION" herein) shall mean Cede & Co., as aforesaid, and shall not mean the Beneficial Owners of the Bonds.

When reference is made to any action which is required or permitted to be taken by the Beneficial Owners, such reference shall only relate to those permitted to act (by statute, regulation or otherwise) on behalf of such Beneficial Owners for such purposes. When notices are given, they shall be sent by the Trustee to DTC only.

For every transfer and exchange of Bonds, the Beneficial Owner may be charged a sum sufficient to cover any tax, fee or other governmental charge that may be imposed in relation thereto.

The Issuer, in its sole discretion and without the consent of any other person, may terminate the services of DTC with respect to the Bonds if the Issuer determines that (i) DTC is unable to discharge its responsibilities with respect to the Bonds, or (ii) a continuation of the requirement that all of the Outstanding Bonds be registered in the registration books kept by the Trustee in the name of Cede & Co., as nominee of DTC, is not in the best interests of the Beneficial Owners. In the event that no substitute securities depository is found by the Issuer or restricted registration is no longer in effect, Bond certificates will be delivered.

NONE OF THE ISSUER, THE INSTITUTION OR THE TRUSTEE WILL HAVE ANY RESPONSIBILITY OR OBLIGATION TO DIRECT PARTICIPANTS, TO INDIRECT PARTICIPANTS, OR TO ANY BENEFICIAL OWNER WITH RESPECT TO (I) THE ACCURACY OF ANY RECORDS MAINTAINED BY DTC, ANY DIRECT PARTICIPANT, OR ANY INDIRECT PARTICIPANT; (II) ANY NOTICE THAT IS PERMITTED OR REQUIRED TO BE GIVEN TO THE OWNERS OF THE BONDS UNDER THE AGREEMENT; (III) THE SELECTION BY DTC OR ANY DIRECT PARTICIPANT OR INDIRECT PARTICIPANT OF ANY PERSON TO RECEIVE PAYMENT IN THE EVENT OF A PARTIAL REDEMPTION OF THE BONDS; (IV) THE PAYMENT BY DTC OR ANY DIRECT PARTICIPANT OR INDIRECT PARTICIPANT OF ANY AMOUNT WITH RESPECT TO THE PRINCIPAL OR REDEMPTION PRICE OF OR INTEREST DUE WITH RESPECT TO THE BONDS; (V) ANY CONSENT GIVEN OR OTHER ACTION TAKEN BY DTC AS THE OWNER OF THE BONDS; OR (VI) ANY OTHER MATTER.

Certificated Bonds

DTC may discontinue providing its services as securities depository with respect to the Bonds at any time by giving reasonable notice to the Issuer or the Trustee. In addition, the Issuer may determine that continuation of the system of book-entry transfers through DTC (or a successor securities depository) is not in the best interests of the Beneficial Owners. If for either reason the Book-Entry-Only system is discontinued, Bond certificates will be delivered as described in the Agreement and the Beneficial Owner, upon registration of certificates held in the Beneficial Owner's name, will become the Bondowner.

Thereafter, the Bonds may be exchanged for an equal aggregate principal amount of the Bonds in other authorized denominations and of the same maturity, upon surrender thereof at the principal corporate trust office of the Trustee. The transfer of any Bond may be registered on the books maintained by the Trustee for such purpose only upon assignment in form satisfactory to the Trustee. For every exchange or registration of transfer of the Bonds, the Issuer and the Trustee may make a charge sufficient to reimburse them for any tax or other governmental charge required to be paid with respect to such exchange or registration of transfer, but no other charge may be made to the Bondowner for any exchange or registration of transfer of the Bonds. The Trustee will not be required to register the transfer of or exchange any Bond during the notice period preceding any redemption if such Bond (or any part thereof) is eligible to be selected or has been selected for redemption.

PLAN OF FINANCING

The proceeds of the Bonds are expected to be applied to finance and refinance certain “Green Projects,” including repaying approximately \$100,000,000 of the Institution’s outstanding commercial paper (the “Commercial Paper”), the proceeds of which financed certain Green Projects (as defined herein) and to pay costs of issuance of the Bonds. The Institution expects the Bond proceeds will be held in an Institution-established fund, which will be applied by the Institution to the repayment of the Commercial Paper on or after the date of issuance of the Bonds (and in any event within ninety (90) days following the issuance of the Bonds), and to the payment of Green Projects. The Institution expects to spend such Bond proceeds on the Green Projects within one year following the issuance of the Bonds.

Specifically, the capital projects currently expected to be financed or refinanced, in whole or in part, with proceeds of the Bonds (collectively, the “Green Projects”) include construction of the Science and Engineering Complex and renovations to Adams House student housing and Soldiers Field Park Harvard affiliate housing. The Science and Engineering Complex is LEED Platinum and Living Building Challenge certified and the Soldiers Field Park project is LEED Gold certified. The Adams House renovation project was designed to LEED Gold specifications. There can be no assurance, however, that such project will achieve LEED Gold certification.

ESTIMATED SOURCES AND USES OF FUNDS

The table below sets forth the estimated sources and uses of funds in connection with the issuance of the Bonds.

Sources of Funds:	Total
Principal Amount of Bonds.....	\$207,830,000
Premium	42,164,550
Total Sources	\$249,994,550
 Uses of Funds:	
Green Projects	
New Projects	\$148,601,420
Refinancing ⁽¹⁾	100,000,000
Costs of Issuance ⁽²⁾	1,393,130
Total Uses	\$249,994,550

⁽¹⁾ Includes refinancing the Commercial Paper, the proceeds of which financed certain Green Projects. See “PLAN OF FINANCE” herein.

⁽²⁾ Includes the Underwriters’ compensation and other costs of issuing the Bonds.

DESIGNATION OF BONDS AS GREEN BONDS

The information set forth below under the sub-sections entitled “Green Bonds Designation” and “Independent Second Party Opinion on Green Bonds Designation and Disclaimer” has been provided by Kestrel Verifiers for inclusion herein, and none of the Issuer, the Institution or the Underwriters make any representation as to, or assume any responsibility for, the completeness or accuracy of such information or as to the absence of material adverse changes in such information subsequent to the date hereof.

The term “Green Bonds” is neither defined in the Agreement nor related to any provisions of the Agreement. The term “Green Bonds” is provided herein solely for identification purposes and is not intended to provide or imply that the Bonds are entitled to any security other than as provided in the Agreement and described herein under the caption “SOURCES OF PAYMENT AND SECURITY FOR THE BONDS,” or to any covenants or agreements of the Institution other than as provided in the Agreement. Neither the Institution nor the Underwriters have any obligation to ensure that the Bonds comply with any standards or principles that may be related to “Green Bonds,” whether now existing or as may be developed in the future.

Green Bonds Designation

Per the International Capital Market Association (“ICMA”), Green Bonds are any type of bond instruments where the proceeds will be exclusively applied to finance or refinance, in part or in full, new and/or existing eligible Green Projects and which are aligned with the four core components of the ICMA Green Bond Principles. The four core components are: (1) Use of Proceeds; (2) Process for Project Evaluation and Selection; (3) Management of Proceeds; and (4) Reporting.

Kestrel Verifiers has determined that the Bonds are in conformance with the four core components of the ICMA Green Bond Principles, as described in the Independent Second Party Opinion, which is attached hereto as Appendix F. See APPENDIX F – “GREEN BONDS INDEPENDENT SECOND PARTY OPINION” herein.

Independent Second Party Opinion on Green Bonds Designation and Disclaimer

For over 20 years, Kestrel Verifiers has been consulting in sustainable finance. Kestrel Verifiers, a division of Kestrel 360, Inc., is an Approved Verifier accredited by the Climate Bonds Initiative and an Observer for the ICMA Green Bond Principles and Social Bond Principles. Kestrel Verifiers reviews transactions in all asset classes worldwide for alignment with ICMA Green Bond Principles, Social Bond Principles, Sustainability Bond Guidelines and the Climate Bonds Initiative Standards and criteria.

The Independent Second Party Opinion issued by Kestrel Verifiers does not and is not intended to make any representation or give any assurance with respect to any other matter relating to the Bonds. Designations by Kestrel Verifiers are not a recommendation to any person to purchase, hold, or sell the Bonds and such labeling does not address the market price or suitability of the Bonds for a particular investor and does not and is not in any way intended to address the likelihood of timely payment of the principal or redemption price of, and interest on, the Bonds, when due.

In issuing the Independent Second Party Opinion, Kestrel Verifiers has assumed and relied upon the accuracy and completeness of the information made publicly available by the Institution or that was otherwise made available to Kestrel Verifiers.

RATINGS

Moody's Investors Service, Inc. has assigned a rating of "Aaa" with a stable outlook to the Bonds and S&P Global Ratings has assigned a rating of "AAA" with a stable outlook to the Bonds. Such ratings reflect only the views of such organizations and any desired explanation of the significance of such ratings should be obtained only from the rating agency furnishing the same. Generally, a rating agency bases its rating on the information and materials furnished to it and investigations, studies and assumptions of its own. There is no assurance that such ratings will continue for any given period of time or that they will not be revised, either downward or upward, or withdrawn entirely by the rating agencies, if in the judgment of such rating agencies, circumstances so warrant. Any such downward revision or withdrawal of such ratings may have an adverse effect on the market price of the Bonds.

UNDERWRITING

Goldman Sachs & Co. LLC, as representative of the underwriters named on the cover hereof (collectively, the "Underwriters"), will agree to purchase the Bonds at an aggregate purchase price of \$249,292,214.26 (representing the principal amount of the Bonds, plus an aggregate net original issue premium of \$42,164,550.40 and less an underwriting discount of \$702,336.14), pursuant to a purchase contract. The Underwriters may offer and sell the Bonds to certain dealers (including dealers depositing Bonds into investment trusts) and others at prices lower than the public offering price stated on the cover page hereof. The contract for the purchase of the Bonds by the Underwriters is subject to certain conditions and provides that the Underwriters will purchase all the Bonds if any are purchased and requires the Institution to make certain representations and to indemnify the Underwriters and the Issuer and certain other parties against losses, claims, damages or liabilities arising out of any incorrect statements or information, including any omission of material facts, contained in certain portions of this Official Statement described in the fifth paragraph under the heading "MISCELLANEOUS." The public offering prices set forth on the inside cover page hereof may be changed after the initial offering by the Underwriters.

BofA Securities, Inc., one of the underwriters of the Bonds, has entered into a distribution agreement with its affiliate Merrill Lynch, Pierce, Fenner & Smith Incorporated ("MLPF&S"). As part of this arrangement, BofA Securities may distribute securities to MLPF&S, which may in turn distribute such securities to investors through the financial advisor network of MLPF&S. As part of this arrangement, BofA Securities may compensate MLPF&S as a dealer for their selling efforts with respect to the Bonds.

Morgan Stanley & Co., LLC, one of the underwriters of the Bonds, has entered into a retail distribution arrangement with Morgan Stanley Smith Barney LLC. As part of the distribution arrangement, Morgan Stanley & Co. LLC may distribute municipal securities to retail investors through the financial advisor network of Morgan Stanley Smith Barney LLC. As part of this arrangement, Morgan Stanley & Co. LLC may compensate Morgan Stanley Smith Barney LLC for its selling efforts with respect to the Bonds.

Wells Fargo Corporate & Investment Banking (which may be referred to elsewhere as "CIB," "Wells Fargo Securities" or "WFS") is the trade name used for the corporate banking, capital markets and investment banking services of Wells Fargo & Company and its subsidiaries, including Wells Fargo Bank, National Association ("WFBNA"), a member of the National Futures Association, which conducts its municipal securities sales, trading and underwriting operations through the Wells Fargo Bank, N.A. Municipal Finance Group, a separately identifiable department of WFBNA, registered with the U.S. Securities and Exchange Commission as a municipal securities dealer pursuant to Section 15B(a) of the Securities Exchange Act of 1934.

WFBNA, acting through its Municipal Finance Group, one of the underwriters of the Bonds, has entered into an agreement (the “WFA Distribution Agreement”) with its affiliate, Wells Fargo Clearing Services, LLC (which uses the trade name “Wells Fargo Advisors”) (“WFA”), for the distribution of certain municipal securities offerings, including the Bonds. Pursuant to the WFA Distribution Agreement, WFBNA will share a portion of its underwriting or remarketing agent compensation, as applicable, with respect to the Bonds with WFA. WFBNA has also entered into an agreement (the “WFSLLC Distribution Agreement”) with its affiliate Wells Fargo Securities, LLC (“WFSLLC”), for the distribution of municipal securities offerings, including the Bonds. Pursuant to the WFSLLC Distribution Agreement, WFBNA pays a portion of WFSLLC’s expenses based on its municipal securities transactions. WFBNA, WFSLLC, and WFA are each wholly-owned subsidiaries of Wells Fargo & Company.

The Underwriters and their affiliates are full service financial institutions engaged in various activities, which may include securities trading, commercial and investment banking, investment management, principal investment, hedging, financing and brokerage activities. The Underwriters and their affiliates have, from time to time, performed, and may in the future perform, various investment banking services for the Issuer or the Institution, for which they received or will receive customary fees and expenses.

In the ordinary course of their various business activities, the Underwriters and their affiliates may make or hold a broad array of investments and actively trade debt and equity securities (or related derivative securities) and financial instruments (which may include bank loans and/or credit default swaps) for their own account and for the accounts of their customers and may at any time hold long and short positions in such securities and instruments. Such investment and securities activities may involve securities and instruments of the Issuer or the Institution.

CONTINUING DISCLOSURE

No financial or operating data concerning the Issuer is material to any decision to purchase, hold or sell the Bonds and the Issuer will not provide any such information. The Institution has undertaken all responsibilities for any continuing disclosure to the holders and beneficial owners of the Bonds as described below, and the Issuer shall have no liability to the holders and beneficial owners of the Bonds or any other person with respect to such disclosures.

The Institution has covenanted for the benefit of holders and beneficial owners of the Bonds to provide certain financial information and operating data relating to the Institution (the “Annual Report”) by not later than March 1 of each year and to provide notices of the occurrence of certain enumerated events, if material. The Annual Report and the notices of material events are to be filed by the Institution, or by the Trustee on behalf of the Institution, in electronic form with the Electronic Municipal Market Access system (“EMMA”) maintained by the Municipal Securities Rulemaking Board (the “MSRB”). These covenants have been made in order to assist the Underwriters in complying with Securities and Exchange Commission Rule 15c2-12(b)(5). On the date of delivery of the Bonds, the Institution and the Trustee will enter into the Continuing Disclosure Agreement substantially in the form attached hereto as Appendix E – “FORM OF CONTINUING DISCLOSURE AGREEMENT.” The Institution has entered into previous continuing disclosure undertakings in connection with certain bonds issued by the Issuer or its predecessor issued for the benefit of the Institution. The Institution complied in all material respects with its obligations under such undertakings during the previous five years, provided that, with respect to the Issuer’s Revenue Bonds, Harvard University Issue, Series 2010B only, the annual reports for fiscal years ended June 30, 2017 through June 30, 2019 were filed subsequent to the applicable deadline.

TAX EXEMPTION

In the opinion of Hinckley, Allen & Snyder LLP, Bond Counsel to the Issuer (“Bond Counsel”), based upon an analysis of existing laws, regulations, rulings, and court decisions, and assuming, among other matters, compliance with certain covenants, interest on the Bonds is excluded from gross income for federal income tax purposes under Section 103 of the Internal Revenue Code of 1986, as amended (the “Code”). Bond Counsel is of the further opinion that interest on the Bonds is not a specific preference item for purposes of the federal alternative minimum tax. Bond Counsel expresses no opinion regarding any other federal tax consequences arising with respect to the ownership or disposition of, or the accrual or receipt of interest on, the Bonds.

The Code imposes various requirements relating to the exclusion from gross income for federal income tax purposes of interest on obligations such as the Bonds. Failure to comply with these requirements may result in interest on the Bonds being included in gross income for federal income tax purposes, possibly from the date of original issuance of the Bonds. The Issuer and the Institution have covenanted to comply with such requirements to ensure that interest on the Bonds will not be included in federal gross income. The opinion of Bond Counsel assumes compliance with these covenants.

Bond Counsel is also of the opinion that, under existing law, interest on the Bonds and any profit on the sale of the Bonds are exempt from Massachusetts personal income taxes and that the Bonds are exempt from Massachusetts personal property taxes. Bond Counsel expresses no opinion regarding any other Massachusetts tax consequences arising with respect to the Bonds. Prospective Bondowners should be aware, however, that the Bonds are included in the measure of Massachusetts estate and inheritance taxes, and the Bonds and the interest thereon are included in the measure of certain Massachusetts corporate excise and franchise taxes. Bond Counsel has not opined as to the taxability of the Bonds or the income therefrom under the laws of any state other than Massachusetts. A complete copy of the proposed form of opinion of Bond Counsel with respect to the Bonds is set forth in Appendix D hereto.

To the extent the issue price of any maturity of the Bonds is less than the amount to be paid at maturity of such Bonds (excluding amounts stated to be interest and payable at least annually over the term of such Bonds), the difference constitutes “original issue discount,” the accrual of which, to the extent properly allocable to each owner thereof, is treated as interest on the Bonds which is excluded from gross income for federal income tax purposes and is exempt from Massachusetts personal income taxes. For this purpose, in general, the issue price of a particular maturity of the Bonds may be established by reference to the first price at which a substantial amount of such maturity of the Bonds is sold to the public. The original issue discount with respect to any maturity of the Bonds accrues daily over the term to maturity of such Bonds on the basis of a constant interest rate compounded semiannually (with straight-line interpolations between compounding dates). The accruing original issue discount is added to the adjusted basis of such Bonds to determine taxable gain or loss upon disposition (including sale, redemption, or payment on maturity) of such Bonds. Bondowners should consult their own tax advisors with respect to the tax consequences of ownership of Bonds with original issue discount, including the treatment of purchasers who do not purchase such Bonds in the original offering to the public at the issue price established therefor.

Bonds purchased, whether at original issuance or otherwise, for an amount greater than the stated principal amount to be paid at maturity of such Bonds, or, in some cases, at the earlier redemption date of such Bonds (“Premium Bonds”), will be treated as having amortizable bond premium for federal income tax purposes and Massachusetts personal income tax purposes. No deduction is allowable for the amortizable bond premium in the case of obligations, such as the Premium Bonds, the interest on which is excluded from gross income for federal income tax purposes. However, a Bondowner’s basis in a Premium Bond will be reduced by the amount of amortizable bond premium properly allocable to such

Bondowner. Owners of Premium Bonds should consult their own tax advisors with respect to the proper treatment of amortizable bond premium in their particular circumstances.

Prospective Bondowners should be aware that certain requirements and procedures contained or referred to in the Agreement and other relevant documents may be changed and certain actions (including, without limitation, defeasance of the Bonds) may be taken or omitted under the circumstances and subject to the terms and conditions set forth in such documents. Bond Counsel has not undertaken to determine (or to inform any person) whether any actions taken (or not taken) or events occurring (or not occurring) after the date of issuance of the Bonds may adversely affect the value of, or the tax status of interest on, the Bonds.

Prospective Bondowners should be aware that from time to time legislation is or may be proposed which, if enacted into law, could result in interest on the Bonds being subject directly or indirectly to federal income taxation, or otherwise prevent Bondowners from realizing the full benefit provided under current federal tax law of the exclusion of interest on the Bonds from gross income. To date, no such legislation has been enacted into law. However, it is not possible to predict whether any such legislation will be enacted into law. Further, no assurance can be given that any pending or future legislation, including amendments to the Code, if enacted into law, or any proposed legislation, including amendments to the Code, or any future judicial, regulatory or administrative interpretation or development with respect to existing law, will not adversely affect the market value and marketability of, or the tax status of interest on, the Bonds. Prospective Bondowners are urged to consult their own tax advisors with respect to any such legislation, interpretation or development.

Although Bond Counsel is of the opinion that interest on the Bonds is excluded from gross income for federal income tax purposes and is exempt from Massachusetts personal income taxes, the ownership or disposition of, or the accrual or receipt of interest on, the Bonds may otherwise affect a Bondowner's federal or state tax liability. The nature and extent of these other tax consequences will depend upon the particular tax status of the Bondowner or the Bondowner's other items of income, deduction or exclusion. Bond Counsel expresses no opinion regarding any such other tax consequences, and Bondowners should consult with their own tax advisors with respect to such consequences.

LEGALITY OF BONDS FOR INVESTMENT AND DEPOSIT

The Act provides that the Bonds are securities in which all public officers and public bodies of the Commonwealth and its political subdivisions, all Massachusetts insurance companies, trust companies, savings banks, co-operative banks, banking associations, investment companies, executors, administrators, trustees and other fiduciaries may properly and legally invest funds, including capital in their control or belonging to them. Under the Act, the Bonds are securities which may properly and legally be deposited with and received by any Commonwealth or municipal officer of any agency or political subdivision of the Commonwealth for any purpose for which the deposit of bonds or obligations of the Commonwealth is now or may hereafter be authorized by law.

LITIGATION

There is no litigation pending against the Issuer or, to the knowledge of the officers of the Issuer, threatened against the Issuer seeking to restrain or enjoin the issuance or delivery of the Bonds or in any way contesting the existence or the powers of the Issuer relating to the issuance of the Bonds.

See Appendix A with respect to the absence of material litigation affecting the Institution.

COMMONWEALTH NOT LIABLE ON BONDS

The Bonds are not a general obligation of the Issuer and shall not be deemed to constitute a debt or liability of the Commonwealth or any political subdivision thereof, or a pledge of the faith and credit of the Issuer or the Commonwealth or any such political subdivision, but shall be payable solely from and to the extent of the payments made by the Institution pursuant to the Agreement and any other funds held under the Agreement for such purpose. Neither the faith and credit of the Issuer or the Commonwealth nor the taxing power of the Commonwealth or any political subdivision thereof is pledged to the payment of the principal of or interest on the Bonds. The Act does not in any way create a so-called moral obligation of The Commonwealth of Massachusetts or of any political subdivision thereof to pay debt service in the event of default by the Institution. The Issuer has no taxing power under the Act.

LEGAL MATTERS

All legal matters incidental to the authorization and issuance of the Bonds by the Issuer are subject to the approval of Hinckley, Allen & Snyder LLP, Boston, Massachusetts, Bond Counsel, whose opinion approving the validity and tax exempt status of the Bonds will be delivered with the Bonds. A copy of the proposed form of such opinion is attached hereto as Appendix D – “PROPOSED FORM OF BOND COUNSEL OPINION.” Certain legal matters will be passed on for the Institution by its counsel, Ropes & Gray LLP, Boston, Massachusetts, and for the Underwriters by its counsel, Orrick, Herrington & Sutcliffe LLP, New York, New York.

INDEPENDENT ACCOUNTANTS

The financial statements of the Institution as of and for the fiscal year ended June 30, 2021, included in Appendix B to this Official Statement, have been audited by PricewaterhouseCoopers LLP, independent accountants, as stated in their report appearing in Appendix B hereto.

MISCELLANEOUS

The references to the Act and the Agreement are brief summaries of certain provisions thereof. Such summaries do not purport to be complete, and reference is made to the Act and the Agreement for full and complete statements of such provisions. The agreements of the Issuer with the Bondowners are fully set forth in the Agreement, and neither any advertisement of the Bonds nor this Official Statement is to be construed as constituting an agreement with the Bondowners. So far as any statements are made in this Official Statement involving matters of opinion, whether or not expressly so stated, they are intended merely as such and not as representations of fact. Copies of the documents mentioned in this paragraph are on file at the offices of the Issuer and the Trustee.

Appendix A to this Official Statement sets forth certain operating and financial information of the Institution. Appendix B to this Official Statement sets forth the “Harvard University Financial Report Fiscal Year 2021,” which includes the audited financial statements of the Institution for the fiscal year ended June 30, 2021. While the information contained in such Report is believed to be reliable, neither the Issuer nor the Underwriters make any representations or warranties whatsoever with respect to such information.

Appendix C – “DEFINITIONS OF CERTAIN TERMS AND SUMMARY OF CERTAIN PROVISIONS OF THE AGREEMENT” and Appendix D – “PROPOSED FORM OF BOND COUNSEL OPINION,” attached hereto, have been prepared by Hinckley, Allen & Snyder LLP, Bond Counsel to the Issuer.

All appendices hereto are incorporated herein as an integral part of this Official Statement.

The Institution has reviewed the portions of this Official Statement describing the Institution, “ESTIMATED SOURCES AND USES OF FUNDS,” “PLAN OF FINANCING” and the second paragraph under the heading “CONTINUING DISCLOSURE,” has furnished Appendix A and Appendix B to this Official Statement, and has approved all such information for use with this Official Statement. At the closing, the Institution will certify that such portions of this Official Statement do not contain an untrue statement of a material fact or omit a statement of material fact necessary to make the statements made therein, in the light of the circumstances under which they are made, not misleading.

The Issuer has consented to the use of this Official Statement. The Issuer is responsible only for the statements contained under the caption “THE ISSUER” and the information pertaining to the Issuer under the caption “LITIGATION,” and the Issuer makes no representation as to the accuracy, completeness or sufficiency of any other information contained herein. Except as otherwise stated herein, neither the Issuer nor the Underwriters make any representations or warranties whatsoever with respect to the information contained herein.

APPENDIX A
CERTAIN INFORMATION CONCERNING THE INSTITUTION

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HARVARD UNIVERSITY

MASSACHUSETTS HALL
CAMBRIDGE, MASSACHUSETTS 02138

The following is information with respect to President and Fellows of Harvard College (“Harvard” or the “University”).

The University

Harvard is one of the nation’s oldest and most prestigious institutions of higher education, dedicated to teaching and research to push the boundaries of human knowledge. Harvard is an educational corporation incorporated in 1650 by act of the Colony of Massachusetts Bay confirmed, as amended, in the Constitution of 1780 of The Commonwealth of Massachusetts. It is exempt from federal income tax pursuant to Section 501(c)(3) of the Internal Revenue Code. Its principal sites are in Cambridge, Massachusetts and the Allston and Longwood areas of Boston, Massachusetts. The University consists of Harvard College, eleven graduate schools and several research institutes and museums.

By charter, Harvard has two governing boards – President and Fellows (also known as the “Corporation”) and the Board of Overseers (the “Board”). The Corporation consists of the President and Treasurer, along with eleven Fellows. Members of the Corporation (including the President and Treasurer) are elected by the Corporation, subject to the counsel and consent of the Board. The Corporation oversees the management of the financial affairs of the University without need of consent by the Board to specific transactions. The members of the Corporation are:

Name	Title
Lawrence S. Bacow	President and Professor of Public Policy, Harvard University
Paul J. Finnegan	Treasurer, Harvard University Co-CEO, Madison Dearborn Partners
Timothy R. Barakett	Chairman, TRB Advisors
Kenneth I. Chenault	Chairman and Managing Director, General Catalyst
Mariano-Florentino Cuéllar	Justice, Supreme Court of California
William F. Lee ¹	Partner, Wilmer Cutler Pickering Hale and Dorr LLP
Biddy Martin	President and Professor of German and Sexuality, Women’s and Gender Studies, Amherst College
Karen Gordon Mills	Senior Fellow, Harvard Business School Former Administrator, U.S. Small Business Administration President, MMP Group
Diana Nelson	Co-Chair, Carlson Holdings, Inc.
Penny Pritzker ¹	Founder and Chairman, PSP Partners
David M. Rubenstein	Co-Founder and Co-Executive Chairman, The Carlyle Group
Shirley M. Tilghman	President Emerita, Princeton University Professor of Molecular Biology and Public Affairs, Princeton University
Theodore V. Wells, Jr.	Partner, Paul, Weiss, Rifkind, Wharton & Garrison LLP

¹ William Lee, the current senior fellow of the Corporation, will be stepping down from the Corporation in June 2022. Tracy Palandjian, co-founder and CEO of Social Finance and vice chair of the US Impact Investing Alliance, will join the Corporation as of July 1, 2022. Penny Pritzker has been named the new senior fellow of the Corporation effective July 1, 2022.

The Board consists of the President and the Treasurer *ex-officiis* and 30 persons elected by the alumni of the University for six-year staggered terms. A member of the Board may serve more than one term. The consent of the Board is required for certain acts of the Corporation, including the election of successors to Fellows, certain academic and administrative appointments (including the President and the Treasurer) and the awarding of degrees. The Board also reviews the academic performance of the University through more than 50 visiting committees composed of both Board members and others.

Administration

The academic affairs of the University are managed by the President, the Provost and the deans of the University's faculties. The non-academic affairs of the University are managed by the President, the Treasurer, the Executive Vice President and nine Vice Presidents. The principal administrative officers of the University are as follows:

Name	Title
Lawrence S. Bacow	President
Alan M. Garber	Provost
Paul J. Finnegan	Treasurer
Katherine N. Lapp	Executive Vice President
Paul Andrew	Vice President for Public Affairs and Communications
Manuel Cuevas-Trisán	Vice President for Human Resources
Marc Goodheart	Vice President and Secretary of the University
Thomas J. Hollister	Vice President for Finance and Chief Financial Officer
Klara Jelinkova	Vice President and Chief Information Officer
Diane Lopez	Vice President and General Counsel
Brian K. Lee	Vice President for Alumni Affairs and Development
Martha Whitehead	Vice President for the Harvard Library
Meredith Weenick	Vice President for Campus Services

Harvard Management Company

Harvard Management Company, Inc. ("HMC"), a wholly owned subsidiary of Harvard University founded in 1974, has delegated authority to manage the General Investment Account (which includes the University's endowment) and substantially all of the financial assets of the University pursuant to an Investment Advisory Agreement. Led by CEO, N. P. "Narv" Narvekar, HMC's mission is to help ensure that Harvard University has financial resources to maintain and expand its teaching, learning, and research activities.

HMC is governed by a Board of Directors, which includes the President, Treasurer, and Chief Financial Officer of the University, and the CEO of HMC. Information on other members of HMC's management team, as of the date hereof, is available at: <https://www.hmc.harvard.edu/about>.

In October 2020, HMC completed an organizational restructuring that was originally announced in 2017. HMC's investment approach now utilizes an internal generalist investment team that evaluates opportunities across asset classes, combined with external management teams that focus on specific investment areas.

For the fiscal year ended June 30, 2021 the return on the Harvard endowment was 33.6%. The value of the endowment on June 30, 2021 was \$53.2 billion.

Student Applications and Enrollment

The University receives applications substantially in excess of the number of students it can accept into its undergraduate and graduate programs. The following table shows applications received and the number of freshmen admitted to and enrolled in Harvard College (the University's principal undergraduate unit) for the fall terms of the academic years indicated.

Recent Application Statistics					
Academic Year	Freshman Applications Received	Freshmen Admitted	Freshmen Enrolled	Selectivity (%)	Yield (%)
2017-18	39,506	2,037	1,687	5.2%	82.8%
2018-19	42,749	2,024	1,653	4.7%	81.7%
2019-20	43,330	2,009	1,649	4.6%	82.1%
2020-21	40,428	2,015	1,407*	5.0%	69.8%*
2021-22	57,789	2,318	1,951*	4.0%	84.2%*

Source: University Records

* Management attributes the 2020-21 declines and subsequent 2021-22 rebounds to COVID-related deferrals

The following table shows the total number of full-time equivalent undergraduate students and graduate-degree students enrolled for the fall term of the academic years indicated. (Figures do not include the Harvard Division of Continuing Education.)

Student Enrollment			
Academic Year	Undergraduate	Graduate	Total
2017-18	6,697	13,032	19,729
2018-19	6,722	13,206	19,928
2019-20	6,716	13,410	20,126
2020-21	5,197*	12,762*	17,959*
2021-22	7,095*	13,566*	20,661*

Source: University Records

* Management attributes the 2020-21 declines and subsequent 2021-22 rebounds to COVID-related deferrals

Tuition, Fees and Room & Board

The following table shows undergraduate charges for the academic years indicated.

Tuition, Fees and Room & Board			
Academic Year	Tuition and Fees	Average Room and Board	Total
2017-18	\$48,949	\$16,660	\$65,609
2018-19	\$50,420	\$17,160	\$67,580
2019-20	\$51,925	\$17,682	\$69,607
2020-21	\$53,968	\$18,389	\$72,357
2021-22	\$55,587	\$18,941	\$74,528

Source: University Records

Student Financial Aid

The University undergraduate admissions policy provides that admissions to Harvard College are need-blind, which allows the University to bring the best students to Harvard College, regardless of their ability to pay. Approximately 55% of Harvard College students receive need-based scholarships, and 20% of these students pay nothing to attend. The average family contribution toward the cost of attendance (including tuition, fees, room & board, and travel) is \$12,000 for the students who receive need-based aid. Typically, undergraduate aid packages consist of grants and employment, with a small percentage of students electing loans.

Faculty and Staff

Harvard employs approximately 2,500 faculty. Faculty tenure decisions are subject to the approval of the President, while certain other appointments (such as the Provost, faculty deans, vice presidents, University Professors, and selected others) are subject to the approval of the Joint Committee on Appointments, a joint committee of the University's two governing boards (the Corporation and the Board). The University had approximately 18,700 employees as of October 2021 (not including graduate student appointments and similar positions and temporary or less than half-time workers). Each school at the University has significant autonomy in establishing its own staffing policies, which include hiring and wage and salary administration.

Labor Relations

The University considers its relations with its employees to be good. Approximately 6,400 of its employees are covered under seven collective bargaining agreements, represented by ten labor unions. Bargaining units consist of clerical and technical workers; dining service workers; custodians; arborists and gardeners; maintenance tradespersons; police officers; and museum, parking and security guards. The collective bargaining agreement with the Harvard University Security, Parking, and Museum Guards' Union is anticipated to expire on April 30, 2022, and the parties are currently in mediation. The other collective bargaining agreements have varying expiration dates through 2026.

In addition, a collective bargaining agreement with the Harvard Graduate Students Union-United Auto Workers, which represents approximately 5,000 student workers, was ratified in November 2021 and expires in 2025.

Allston Development

On October 17, 2013, the Boston Redevelopment Authority unanimously approved Harvard's Institutional Master Plan ("IMP"), a ten-year development plan for the extension of Harvard's campus in Allston. The IMP outlines seven new building projects and two major renovations on the Allston campus, which the University anticipates will eventually encompass a total of 1.4 million square feet of new construction and 500,000 square feet of renovation spaces for facilities such as new academic and faculty buildings. The University is currently working on the 2023 update to its IMP as the conclusion of the initial ten-year period approaches. Outside of the regulatory scope of the IMP, other institutional projects in Allston have been recently completed. Among them is the Science and Engineering Complex ("SEC"), home of the Harvard John A. Paulson School of Engineering and Applied Sciences. This complex, completed in 2020 and LEED Platinum certified, was designed to comply with the Harvard Green Building Standards, which is a set of process-oriented requirements that exceed those of LEED certification. In addition, two new institutional projects expected to be built at 175 North Harvard Street are currently in the design and planning phase: a state-of-the-art research and performance center for the American Repertory Theater, and a housing complex for Harvard affiliates.

In addition to its institutional development, the University is engaging in commercial development on its Allston properties, including the Enterprise Research Campus ("ERC") on the former CSX rail yards. This 36-acre tract, often referred to as Allston Landing North, is intended to attract private and non-profit entities to interact with faculty and students of the University and other area institutions. In November 2018, Harvard formed a wholly owned subsidiary, the Harvard Allston Land Company ("HALC"), to oversee development of the ERC. In December 2019, HALC designated Tishman Speyer as the preferred developer for the project's initial phase, which is anticipated to contain approximately 900,000 square feet of mixed-use development consisting of residential, office, lab, hotel and retail space, as well as a University-owned conference center and over two acres of open space. Aside from the ERC, the University has engaged other third-party real estate partners to develop University-owned properties around Barry's Corner at the intersection of Western Avenue and North Harvard Street with mixed-use residential and retail facilities (Samuels and Associates), and a vacant site at 176 Lincoln Street with a three-building mixed-use project consisting of office and life sciences, retail, and residential space (Berkeley Investments).

In the future, Harvard expects to continue its engagement with the City of Boston and others to plan the development of the area known as Beacon Park Yard. The area consists of approximately 90 acres located South of the ERC area, spanning the triangle between Cambridge Street to the North and West, the Charles River to the East, and the I-90 viaduct and rail infrastructure to the South.

Environmental, Social, and Governance Activities

Harvard's environmental, social and governance ("ESG") initiatives have been established over decades to advance inclusive inter-generational well-being in a variety of ways.

Harvard sustainability initiatives are rooted in the recognition that the University itself may serve as a test site to pilot and prove solutions that others can adopt, allowing for a scale of impact well beyond Harvard's campus. By thinking of the campus as a "Living Lab" where practitioners, researchers, students, and external partners can work together to translate research into action, and by actively leveraging Harvard resources to demonstrate cost-effective, scalable solutions to climate change and sustainable development challenges, the University seeks to inform institutional action with input from a variety of peers, including the private sector, cities, and non-governmental organizations.

Harvard adopted Sustainable (Green) Building Standards in 2009, and these standards are regularly updated in furtherance of Harvard's commitment to sustainable development (including focuses on climate, health, and equity), including in the design and creation of Harvard spaces.

Harvard's first Sustainability Plan was approved in 2014 and built on the foundation of Harvard's first University-wide climate goal to reduce absolute greenhouse gas ("GHG") emissions by 30% against the 2006 baseline. Harvard determined that it achieved this goal in 2016, despite square footage growth of over 12% during the same period. In addition to its focus on energy and climate, the Sustainability Plan sets forth a vision for operational sustainability in areas such as health in the built environment, the food system, landscaping, waste, and water. Progress on these priorities is shared publicly through an Annual Sustainability Report.

In February 2018, Harvard announced its second-generation climate goals, including complete elimination of the use of fossil fuels to heat, cool, and power buildings and vehicles on its campus by 2050. At the same time, the University established a short-term goal, as a bridging strategy, to be fossil fuel-neutral by 2026. Through this new climate action plan, Harvard intends to address both GHG emissions and the health effects of air pollution caused by burning fossil fuels.

In 2020, the Harvard Presidential Committee on Sustainability, managed by the Office for Sustainability, was created to inform Harvard's institutional sustainability vision and priorities, and to ensure that the plan to achieve Harvard's climate change and sustainable development goals is informed by the latest research and science.

HMC has also pledged to monitor its investment portfolio to reduce emissions. In 2020, HMC set a goal to have the endowment reflect net-zero greenhouse gas emissions by 2050, consistent with the stated goals of the so-called "Paris Agreement," an international treaty on climate change, and using standards set by the United Nations' Intergovernmental Panel on Climate Change.

Equity, diversity, inclusion, and belonging are core principles at Harvard. The Harvard Office for Equity, Diversity, Inclusion and Belonging serves to act as a convener,

catalyst, capacity builder, and community builder for Equity, Diversity, Inclusion and Belonging efforts across the campus.

Litigation

The University is subject to various suits, audits, investigations and other legal proceedings in the course of its operations. While the University's ultimate liability, if any, is not determinable at present, no such proceedings are pending or threatened that, in management's opinion, would be likely to have a material adverse effect on the University's ability to meet its commitments related to the Bonds (as defined in the Official Statement to this transaction).

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APPENDIX B

HARVARD UNIVERSITY FINANCIAL REPORT - FISCAL YEAR 2021

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HARVARD
UNIVERSITY



Financial Report

FISCAL YEAR 2021



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14	<u>FINANCIAL STATEMENTS</u>
18	<u>NOTES TO FINANCIAL STATEMENTS</u>

Message from the President

I am pleased to submit Harvard University's financial results for fiscal year 2021.

Humanity has paid a hefty toll to the pandemic. Each of us has been affected in different ways, but all of us have had to contend with a world changed by a public health crisis. Through everything, Harvard has remained resilient—financially and otherwise—because of the remarkable efforts of members of our community.

For eighteen months and counting, we have placed the health and safety of people first. Facing declining revenues this past fiscal year, we took steps to control spending while developing and adopting new policies, providing frequent testing and robust contact tracing, and reimagining our shared practices and physical spaces to protect our students, faculty, and staff—an investment totaling more than \$83 million. We also continued to pay our idled employees and contract workers at a cost of nearly \$60 million. As a result, we were able to avoid the widespread layoffs that were common at so many other colleges and universities. I am pleased to report that almost all of these members of our community are now back to work. These measures also enabled us to continue our teaching and scholarship and to bring a limited number of students back to campus last year. At the same time, we increased support for undergraduate financial aid, making it possible for students to study at Harvard College without the added burden of concerns about affordability.

These necessary efforts directed inward were surpassed by extraordinary efforts directed outward. Since the earliest days of the pandemic, Harvard people have stepped up and stood out—working on the frontlines and saving lives in the ever-shifting landscapes of medicine and science, contributing to vaccination development and deployment, devising ways for learning and working to continue despite disruption, and addressing the profound racial, economic, and social inequities laid bare by the pandemic. Against this stunning backdrop,

individuals throughout the University have devoted themselves to meeting the challenge of climate change, to preserving and defending democracy, and to ensuring that higher education in America continues to attract and welcome the most promising individuals to our ranks. At a moment filled with so much doubt and frustration, Harvard has helped to give the world reason to hope. I cannot imagine a better use of our resources.

Ongoing investment in teaching, financial aid, the student experience, and research is made possible by the extremely generous support of our alums and other friends. During a time of disruption and uncertainty, our loyal donors answered the call. An increase in gifts for current use gave us the opportunity to direct funding to areas with the greatest need, and in ways that have made a real impact as we worked to address and abate the pandemic. Our provost, Alan Garber; our executive vice president, Katie Lapp; and I also succeeded in identifying one-time resources to assist our deans in providing more support across our Schools, a mechanism intended to ensure progress throughout the University.

As we continue to adjust to an unpredictable situation, strong financial stewardship has positioned Harvard and our entire community to accelerate progress. Rather than facing budget shortfalls, we can make significant investments that further our mission. Most importantly, we can rest assured that future generations of students, faculty, researchers, and staff will be able to pursue the opportunity and promise that are the hallmarks of our beloved institution.



Lawrence S. Bacow
PRESIDENT

October 2021

Financial Overview

From the Vice President for Finance and the Treasurer

At the onset of the pandemic, forty million Americans were out of work, the stock market was down 25%, vaccines were a distant hope, and Harvard's campus, like most every other college and university in the country, was nearly empty with the move to remote learning and work. It was during this time—when the scope and duration of the pandemic, and any resulting economic fallout was unknown—that Harvard's governing board approved a budget for fiscal year 2021 that anticipated a severe adverse financial impact from COVID-19 on the University. In the face of all this uncertainty, Harvard's financial plan was anchored on three key principles articulated by President Larry Bacow, Provost Alan Garber, and Executive Vice President Katie Lapp: to prioritize community health and safety, advance the mission of pursuing teaching and research excellence, and recognize that Harvard is its people. These principles deliberately placed Harvard's mission and its people—students, faculty, researchers and staff—at the heart of Harvard's financial focus. By making key investments in remote teaching and learning, developing extensive testing and tracing programs, continuing to advance critical research, avoiding widespread layoffs, and continuing to pay idled workers, the University operated throughout fiscal year 2021 fulfilling those principles.

Fortunately, Harvard's finances ended the year in a dramatically improved position than the initial budget anticipated, with a consolidated University surplus of \$283 million. As expected, revenues were down for the second year in a row; the first time since the Great Depression in the 1930's. This revenue loss was driven by closed campus operations—affecting net tuition and executive education, board and lodging, parking, and other services income. The Harvard community rallied in a shared and purposeful effort to reduce expenses commensurate with the losses in revenues. Over the two-year period from fiscal year 2019 to fiscal year 2021, revenues declined 5%, as did expenses.

The success of this effort directly enabled the University to:

- Pivot to a remote environment, and then enable the transition to a hybrid environment through investments in safety and health measures as well as digital technologies. The University invested \$83 million during fiscal year 2021 in testing and tracing costs, personal protective equipment, technology of all kinds, and the reconfiguration of classrooms and labs. So far, we have kept COVID cases relatively low within our community thanks to guidance from many Harvard health leaders and experts, and the cooperation of all members of the community.
- Support students by granting admission deferrals, increasing per-student levels of financial aid and scholarships, waiving graduate housing rental contracts, providing emergency support grants and eliminating work study requirements. In total, net student income from tuition, room and board was down \$182 million or 17% from fiscal year 2020.
- Avoid any widespread job layoffs. As the pandemic displaced work for employees and contract workers in our workforce, Harvard provided nearly \$60 million in continuous pay and benefits to more than 2,800 members of our community. This helped these colleagues avoid unemployment and ensured a job for them to return to as campus activities resumed.
- Preserve and build reserves in the schools and units for mission purposes.

This work was not easy, and it came with many sacrifices from many people across our entire community. We thank Harvard's students, faculty, researchers and staff, those who have been remote and those on campus, for their flexibility, hard work, and determination to find a way through difficult times.

In the midst of the world-wide impacts of the pandemic, with inequities laid bare and exacerbated, we are inspired to see leaders throughout Harvard nonetheless finding and acting in new and significant ways. All of Harvard's schools are expanding their reach and pedagogical impact through new methods of digital learning, increasing access to students, and making research discoveries across all fields. Harvard seems reinvigorated and is capitalizing on new ways of teaching, learning, and trying to make the world a better place through scholarship and research.

In fiscal year 2022 and beyond, we are focused on the opportunities the pandemic has provided to re-imagine how teaching, learning, research, and work happens—on campus and beyond—to ensure that our financial resources are allocated to areas of highest priority and need.

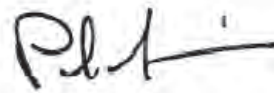
Thanks to capable and careful management by Harvard Management Company, the endowment enjoyed an outstanding year as further described in Narv Narvekar's letter later in the annual report. The endowment is sometimes misunderstood as a checkbook for free spending, however that is not how it works, nor how it was intended by the donors whose gifts created the endowment. Their gifts are designated for use solely as ongoing funding for academic, teaching, research, and other campus activities for generations to come. More often than not, the endowed funds also carry specific use restrictions. We are gratified that this year's return results will provide a lift to operations in the next few years but remain aware that history teaches that capital markets give and take away.

We want to thank each and every donor to the University—past and present—for understanding that Harvard's excellence in teaching and research is made possible through philanthropy. Ten percent of this past year's revenues came from current year donors, and 39 percent from donors of the past through endowment distributions. We are deeply appreciative of their support.

Finally, we thank the entire Harvard community for pulling together during an enormously challenging year, and so successfully advancing the educational and research mission amid the pandemic. It has been inspiring to be a part of it.



Thomas J. Hollister
VICE PRESIDENT FOR FINANCE



Paul J. Finnegan
TREASURER

October 2021

FINANCIAL OVERVIEW

The University ended fiscal year 2021 with an operating surplus of \$283 million compared to a \$10 million deficit in fiscal year 2020. Our positive results are due to generous contributions and a disciplined focus on financial management.

OPERATING REVENUE

In fiscal year 2021, total operating revenue decreased 2% or \$124 million to \$5.2 billion.

Total net student income decreased 17% to \$888 million in fiscal year 2021. Revenue from traditional student programs (undergraduate and graduate) was down \$55 million as students took advantage of generous deferral policies to pause their course of study during the pandemic. The University's commitment to financial aid remained steadfast with aid relative to student charges increasing from the prior year. Board and lodging revenue of \$69 million declined 58% driven by a significantly reduced on-campus presence for the full academic year. Net executive and continuing education totaled \$378 million and was substantially impacted by the COVID-19 pandemic, declining \$122 million or 24% driven by program cancellations and enrollment declines over a two-year span from fiscal year 2019 to fiscal year 2021.

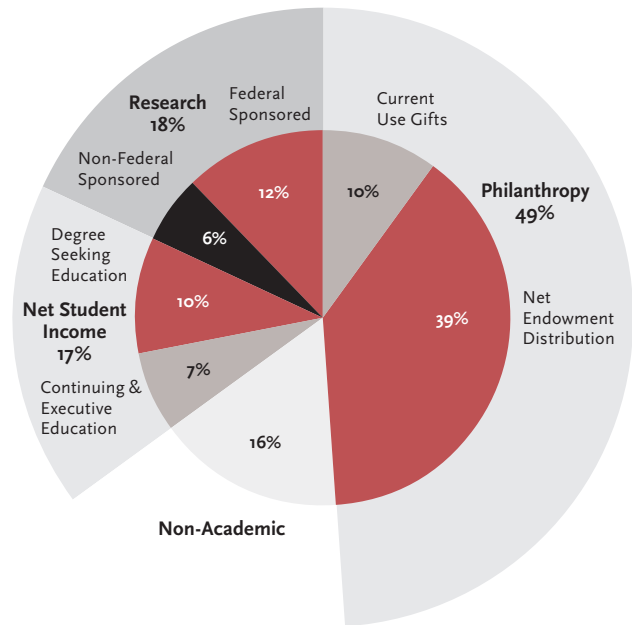
Sponsored support was not significantly impacted by the pandemic in fiscal year 2021, as the University prioritized research activity in return to campus planning last year. As a result, revenue from federal and non-federal sponsored sources increased 1% to \$927 million. Federal funding, which accounted for approximately 67% of total sponsored revenue in fiscal year 2021, increased 1% to \$625 million. Non-federal sponsored revenue, attributable to funding from corporations, foundations, and other non-federal sponsors, remained relatively flat at \$302 million.

We are grateful to all donors who have continued to support the University's mission during this unprecedented time, with current use giving

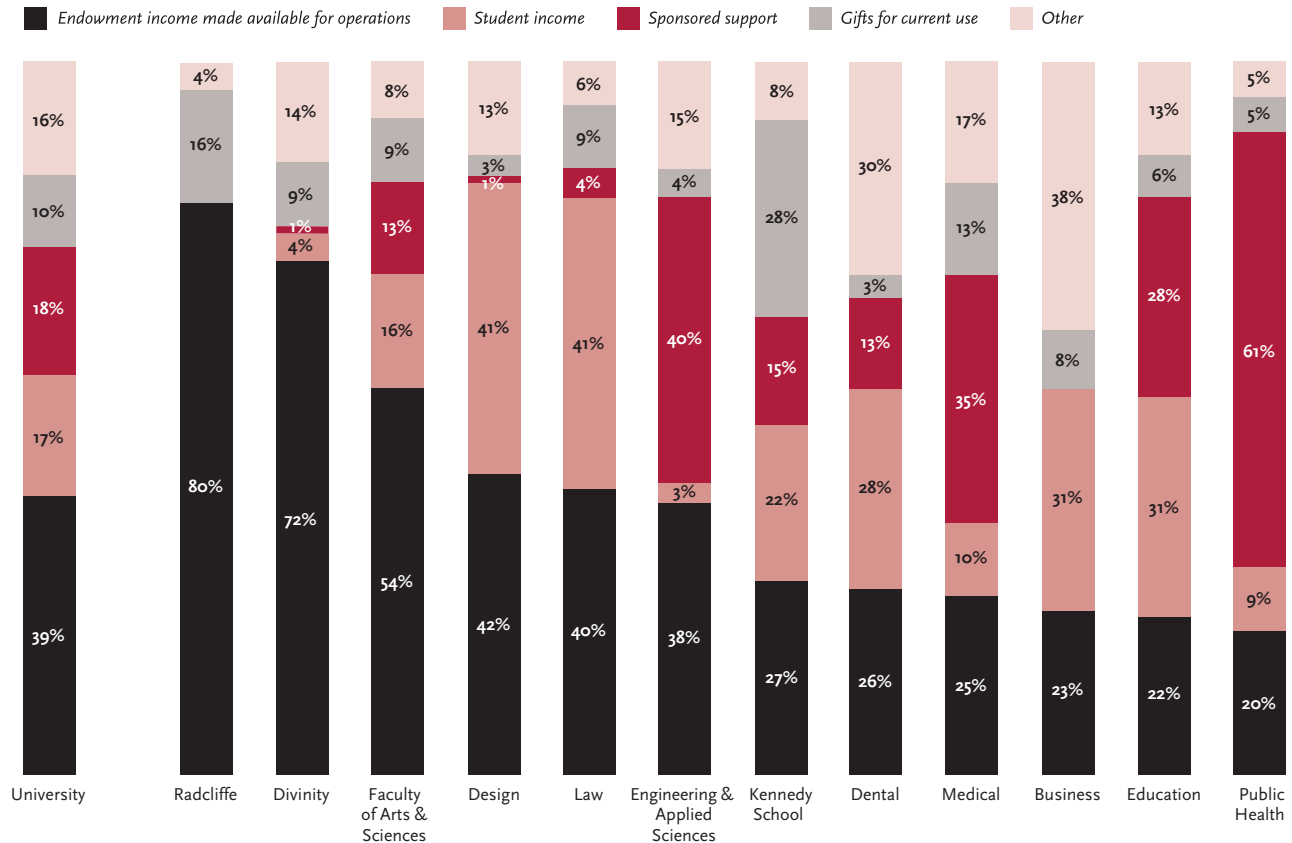
continuing at record levels. Current use gifts, received from alumni, foundations and others, totaled \$541 million, representing approximately 10% of operating revenues in fiscal year 2021. Combined with gifts for current use and Harvard's endowment distribution, philanthropy accounts for 49% of fiscal year 2021 revenue.

In fiscal year 2021, the endowment distribution of \$2.0 billion increased by 2% with the help of new gifts to the endowment. In the aggregate, Harvard's endowment payout rate (i.e., the dollars withdrawn annually for operations as a percentage of the endowment's prior year-end market value) was 5.2%, consistent with the prior fiscal year, and in line with the University's targeted payout rate range of 5.0%–5.5%. The University continues to be keenly focused on managing the endowment's payout rate in order to maintain an appropriate balance between supporting the University's near-term programmatic needs and aspirations and safeguarding the endowment's long-term purchasing power.

FISCAL YEAR 2021 UNIVERSITY REVENUE SOURCES



FISCAL YEAR 2021 SOURCES OF OPERATING REVENUE



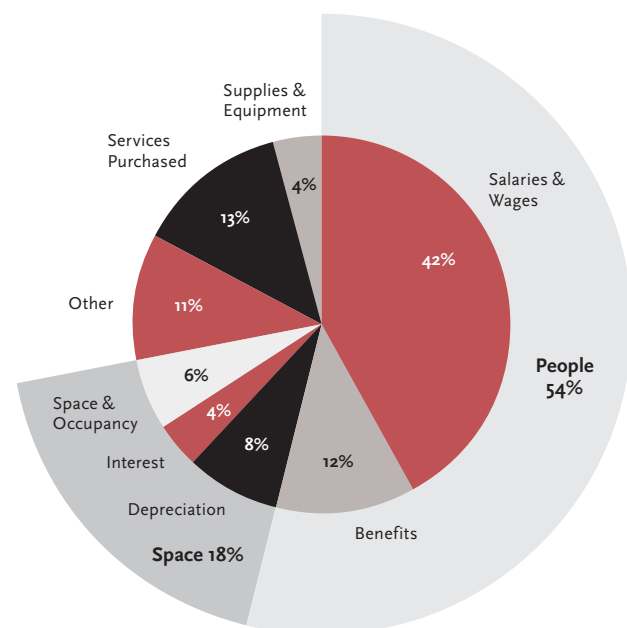
OPERATING EXPENSES

The University's operating expenses decreased by \$417 million or 8%, to \$5.0 billion as of June 30, 2021. While much of this decline was the result of large, one-time costs incurred during fiscal year 2020 (\$71 million related to early retirement benefits in addition to other costs related to asset impairment and environmental remediation), Harvard did realize significant cost savings, a testament to the University's ability to pivot and adapt to the changing environment. Excluding fiscal year 2020's early retirement costs, compensation expense decreased 1%, as retiree-driven vacancies offset contractual union wage increases and year-end bonuses for faculty and staff. By avoiding widespread layoffs and continuing to compensate our idle workers, Harvard was able to continue to support its community throughout the pandemic.

The reduced on-campus presence, combined with sound financial management, resulted in a decrease in non-compensation related expenses in fiscal year 2021. The decrease in discretionary spending was comprised of savings in travel (-\$69 million, 97%),

space and occupancy (-\$47 million, 13%), supplies and equipment (-\$33 million, 14%), and services purchased (-\$26 million, 4%).

FISCAL YEAR 2021 OPERATING EXPENSES



RESPONDING TO COVID-19

The COVID-19 vaccine is one of the breakthroughs made through Harvard's research enterprise that yields discoveries with the potential to improve lives, transform industries, and make a positive social and economic impact.

Two of the three vaccines currently available in the United States have their origins in Harvard Medical School laboratories: the Moderna vaccine and the Johnson & Johnson vaccine.

Harvard awarded the coveted George Ledlie Prize to Dan H. Barouch, the William Bosworth Castle Professor of Medicine at Harvard Medical School and Director of the Center for Virology and Vaccine Research at Beth Israel Deaconess Medical Center for his research culminating in an effective vaccine for COVID-19 developed by Johnson & Johnson.

"If you ever wondered why you support this work, the answer is you are literally helping to save humanity as we speak." – President Lawrence S. Bacow

To respond to the critical challenges of COVID-19, the University launched several initiatives to offer much needed resources and support for communities where we live, learn, and work.



COVID-19 Testing

Regular testing has been a key part of the University's collective efforts to protect the health and safety of our community. Over 1 million COVID-19 tests have been administered to Harvard affiliates with an on-campus presence since June 1, 2020.



Economic Impact

As the fifth largest employer in Massachusetts, the University anchored the state's knowledge-based economy by providing nearly \$60 million in continuous pay and benefits to more than 2,800 employees and contract workers whose work had been either fully or partially displaced or idled due to the pandemic.



Financial Aid

Building on the commitment to expanding access to an affordable college education, the University granted \$597 million in financial aid and scholarships for fiscal year 2021 to support need from students and families during a period of economic uncertainty.



Community Partnerships

The University awarded emergency response grants to local nonprofit organizations to support the delivery of food supplies, medicine, educational programming, and essential resources to more than 19,000 residents in Cambridge and Allston-Brighton.



Support for Temporary Emergency Shelter

The University and the Massachusetts Institute of Technology each donated \$250,000 to the City of Cambridge to support the creation of a temporary emergency shelter, providing relief for the City's homeless residents during the pandemic.



Housing Health Care Workers and First Responders

The University offered the use of the Harvard Square Hotel to the Cambridge Health Alliance and Cambridge Police, Fire, and Emergency Medical Services for housing health care workers and first responders who needed a place to stay in close proximity to hospitals and health care facilities.

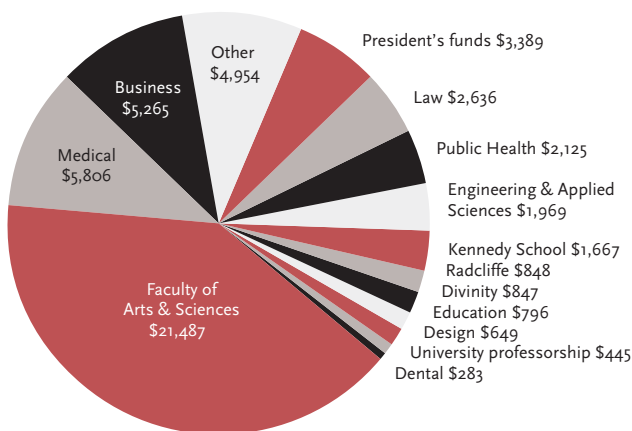
BALANCE SHEET

Investments and endowment

In fiscal year 2021, the return on the endowment was 33.6% and its value (after the net impact of distributions from the endowment for operations, and the addition of new gifts to the endowment during the year) increased from \$41.9 billion at the end of fiscal year 2020 to \$53.2 billion at the end of fiscal year 2021. More information can be found in the Message from the CEO of Harvard Management Company, found on page 9 of this report.

The University has a policy of maintaining liquidity outside of the General Investment Account (GIA) through a combination of cash, cash equivalents and short-term investments. These investments totaled \$1.5 billion at June 30, 2021 compared to \$1.6 billion at June 30, 2020 (see *Note 2*).

MARKET VALUE OF THE ENDOWMENT AS OF JUNE 30, 2021
In millions of dollars



TOTAL MARKET VALUE \$53,166

Debt

Bonds and notes payable decreased from \$5.7 billion at June 30, 2020 to \$5.5 billion at June 30, 2021. The University maintained its AAA rating by S&P Global Ratings and Aaa by Moody's Investor Services.

Fixed assets

The University's Science and Engineering Complex (SEC) building, home to the Harvard John A. Paulson School of Engineering and Applied Sciences (SEAS), came online in fiscal year 2021, resulting in over \$40 million in incremental costs including depreciation. The SEC opened its doors to students in the fall of 2021 and this 544,000-square-foot complex has been certified as one of the healthiest, most sustainable, and energy-efficient laboratories in the world.

The University curtailed spending on capital projects and acquisitions as a result of the COVID-19 pandemic, and for fiscal year 2021 it invested \$410 million compared to \$627 million in fiscal year 2020. The University has continued to invest in renewal projects across the campus in a manner that will allow us to prudently manage capital projects during this upcoming period of financial uncertainty.



HARVARD MANAGEMENT COMPANY

Message from the CEO OCTOBER 2021

Dear Members of the Harvard Community,

For the most recent fiscal year, which ended on June 30, 2021, the return on the Harvard endowment was 33.6% and the value stood at \$53.2 billion. The endowment also distributed more than \$2 billion toward the University's operating budget, which continues to represent more than one-third of annual revenue.

Performance

Asset Class	Allocation	Return
Public Equity	14%	50%
Private Equity	34%	77%
Hedge Funds	33%	16%
Real Estate	5%	13%
Natural Resources	1%	(1)%
Bonds/TIPS	4%	3%
Other Real Assets	1%	1%
Cash & Other*	8%	---
Endowment	100%	34%

**Cash held alongside equity index hedges used to reduce risk.*

Fiscal year 2021 was an extraordinary year. Public and private markets both continued their strong performance, which allowed the endowment to not only increase its distribution to the University, but also continue to grow during this critical time when pandemic-related financial pressures challenge all of higher education.

For each of the last three fiscal years, asset allocation/risk level was a significant determinant of returns—the higher the risk taken, the higher the return generated. The same was true in FY21, with one major difference. During the previous three fiscal years, the impact was measured in a few percentage points. In fact, during that period, HMC's strong alpha generation was enough to overcome the impact of a lower level of portfolio risk. By contrast, the impact of lower portfolio risk this past year was measured in tens of percentage points.

Put another way, given the extraordinarily strong performance of the overall market this past year, a meaningfully higher level of portfolio risk would have increased HMC's returns dramatically.

Specifically, key determinants of returns were:

1. Overall portfolio risk;
2. Venture capital, growth private equity, buyouts, public equity allocations and the directionality of hedge funds (all key expressions of portfolio risk);
3. Historical exposure to specific venture firms and vintage years 2009–2014, which had a dramatic impact upon FY21 returns (due to previous portfolio risk allocations).

Harvard's Risk Tolerance

During FY21, Harvard enjoyed tremendous returns, but also experienced the opportunity cost of taking lower risk. As readers of previous letters will recall, determining Harvard's risk tolerance (and therefore the appropriate risk in the portfolio) has been a topic actively discussed between HMC and the University, starting with my arrival in December 2016. Over the last decade, HMC has taken lower risk than many of our peers and establishing the right risk tolerance level for the University in the years ahead is an essential stewardship responsibility.

In order to maximize the endowment's returns in support of Harvard's mission, Harvard should take an appropriate amount of risk, subject to some important constraints. The main constraint for any university is its ability to absorb a significant reduction (even if only temporary) in the value of the portfolio and the resulting reduction in distributions critical to the annual operating budget. Furthermore, since most of the highest risk assets are illiquid ones (such as venture capital funds) a major decline in market/portfolio will generally result in a reduction in portfolio liquidity, a potential issue for both HMC and Harvard. How much portfolio risk can and should Harvard tolerate? While this appears to be a simple question, the answer is less obvious.

Accordingly, in 2018 HMC formed a Risk Tolerance group. This group includes board members, Harvard faculty, and colleagues from the Harvard administration, and is led by Jeremy Stein, the Moise Y. Safra Professor of Economics. Professor Stein and Harvard's CFO, Tom Hollister, have led us through an extraordinarily thoughtful analysis and debate, integrating Harvard's financial position, its need for budgetary stability, and its ability to handle more risk. It has been an honor and a great opportunity for HMC team members to be a part of and contribute to these discussions.

The level of portfolio risk is ultimately the most important and fundamental aspect of portfolio construction (reflected in asset/risk allocation) and a critical decision for the University. The findings and recommendations of our collective work will be reviewed carefully in the next several months, with ultimate oversight by the Harvard Corporation, and the decisions will direct and inform our management of the portfolio in the years ahead. I look forward to sharing our evolving thinking on portfolio risk levels in future letters.

We take pride in the fact that a deep dialogue with regards to Harvard's risk tolerance and its implications for HMC's portfolio is occurring. Ultimately, we all seek the appropriate risk level for Harvard, which might well be different from that of other university endowments. We believe that Harvard's financial future is very well served by this process.

Portfolio Initiatives

As discussed in the past, our portfolio initiatives over the last few years have aimed to:

1. Reduce Natural Resources exposure
2. Reduce Real Estate exposure
3. Increase Private Equity, especially growth and venture exposures
4. Reduce Public Equity exposure
5. Increase Hedge Funds, particularly those with low equity exposure and correlation

These initiatives are essentially completed, given our current risk tolerance level. Notably, the first three initiatives were driven by our investment views. All but the third initiative were also driven by our need to keep the portfolio within its current risk budget while adding to private venture and growth exposure. While reducing public equities proved to be painful in FY21, we needed to do so in order to remain within our portfolio risk budget. Overall, we are exceptionally pleased that we made these asset allocation moves, as they added about 5 percentage points to the FY21 portfolio return as compared to the FY17 allocation. Building a large hedge fund allocation during these past few years was also a way to mitigate risk as we significantly increased our unfunded capital commitments during the private equity and venture capital ramp-up period. This ramp-up period is mostly behind us now, though may go up a bit more should our risk levels increase.

As sophisticated observers are aware, building venture capital portfolios is a multi-year effort for several reasons: vintage year diversification, highly prudent manager selection, and the years it takes for these exceptional managers to competently invest our capital. Perhaps not surprisingly, a very large share of the tremendous gains from venture funds over the last year related to investments made over a decade ago. Therefore, our recent venture investments could take about a decade to bear fruit, though up rounds are happening much quicker today than in normal market periods. We expect an inevitable pullback, but also believe that certain tech and healthcare sectors offer great secular growth opportunities in the longer term.

Benchmark Relative Performance

As readers of previous letters will understand, we do not regard a focus upon benchmarks as a good way to invest. Nevertheless, I mentioned them in previous letters, and again here, simply as a way to show our early progress and success.

With regards to public markets (Public Equities and Hedge Funds) our four-year outperformance remains excellent—over 400bps on an annualized basis. While equivalent reporting for the private equity side of the portfolio is not yet available for FY21 close, we expect the four-year private equity portfolio benchmark relative performance to continue to be excellent and, therefore, expect that the four-year outperformance for the portfolio in aggregate to remain strong.

A Word of Caution

As experienced investors understand, Harvard's endowment will not produce 33.6% returns each year. Indeed, there will inevitably be negative years, hence the importance of understanding risk tolerance. Similarly, not every four-year period will generate the excellent benchmark relative performance or the absolute performance HMC has generated. What is more important is that our team, investment process/ analytics, organizational structure, culture, and aligned incentives provide HMC with the framework for long-term success.

Net-Zero Efforts

As we highlighted in HMC's first annual [Climate Report](#), our team is making aggressive progress on three considerable challenges toward the 2050 portfolio net-zero pledge: development of a comprehensive calculation methodology for the portfolio's greenhouse gas (GHG) emissions, data access from a wide range of external managers, and engagement with both asset managers and corporations.

Harvard was the first university to make a net-zero endowment pledge, but others have joined the cause as well. Consultation and collaboration with like-minded institutions will accelerate our efforts and establish standards that accurately reflect the real-world emissions of our investments.

While work on the net-zero portfolio continues, HMC recognizes that our own operations should meet that same standard. Since we believe we can do so well in advance of 2050, HMC became the first endowment office to announce that its own operations will be [net-zero, beginning in FY22](#).

Our team looks forward to sharing more thoughts on both our operational and portfolio net-zero efforts in the annual Climate Report early next year.

Diversity and Inclusion

Early in FY21, HMC responded to an inquiry from Representative Emanuel Cleaver, II and Representative Joseph Kennedy, III regarding diversity among our external asset managers. As we have discussed in the past, this is an issue of great importance to us as we believe that both our organization and our portfolio can only excel if we seek talent from the broadest pool possible. I encourage you to review [our responses](#) to their thoughtful questions and know that our efforts to broaden our pipeline of diverse managers and increase our investments with them continues.

In Closing

Shortly after our last annual report was released, HMC announced that we had completed our five-year organizational transition more than a year ahead of schedule. The changes we enacted, as a team, have drastically reshaped both the way HMC operates and the way we invest. I am tremendously grateful for the hard work that each member of our team has contributed over the past few years. There is certainly more work for us to do and we will always look for ways to improve and adapt HMC and our processes. That said, I truly believe that HMC and the endowment are on a pathway to best serving our singular goal to provide long-term financial stability to Harvard University.

Best regards,



N.P. "Narv" Narvekar
Chief Executive Officer



Report of Independent Auditors

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

We have audited the accompanying consolidated financial statements of Harvard University and its subsidiaries (the “University”), which comprise the consolidated balance sheet as of June 30, 2021, and the related consolidated statements of changes in net assets with general operating account detail, changes in net assets of the endowment and of cash flows for the year then ended.

Management’s Responsibility for the Consolidated Financial Statements

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

Auditors’ Responsibility

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

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

Opinion

In our opinion, the consolidated financial statements referred to above present fairly, in all material respects, the financial position of Harvard University and its subsidiaries as of June 30, 2021, and the changes in their net assets and their cash flows for the year then ended in accordance with accounting principles generally accepted in the United States of America.

Other Matter

We previously audited the consolidated balance sheet as of June 30, 2020, and the related consolidated statements of changes in net assets with general operating account detail, changes in net assets of the endowment and of cash flows for the year then ended (not presented herein), and in our report dated October 22, 2020, we expressed an unmodified opinion on those consolidated financial statements. In our opinion, the information set forth in the accompanying summarized financial information as of June 30, 2020 and for the year then ended is consistent, in all material respects, with the audited consolidated financial statements from which it has been derived.

Boston, MA
October 13, 2021

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

BALANCE SHEETS

with summarized financial information as of June 30, 2020

In thousands of dollars	June 30	
	2021	2020
ASSETS:		
Cash and cash equivalents	\$ 224,042	\$ 176,615
Receivables, net (Note 4)	322,482	262,731
Prepayments and deferred charges	315,172	304,920
Operating leases—right of use assets (Note 18)	689,962	754,699
Notes receivables, net (Note 5)	377,596	372,234
Pledges receivables, net (Note 6)	2,335,958	2,403,175
Fixed assets, net (Note 7)	8,463,008	8,435,255
Interests in trusts held by others (Note 3)	515,757	427,359
Securities pledged to counterparties, at fair value (Note 3)	290,388	214,010
Investment portfolio, at fair value (Note 3)	61,141,750	48,111,441
TOTAL ASSETS	\$ 74,676,115	\$ 61,462,439
LIABILITIES:		
Accounts payable	\$ 488,896	\$ 321,666
Deferred revenue and other liabilities	1,716,026	1,580,178
Operating lease liabilities (Note 18)	702,872	767,599
Other liabilities associated with the investment portfolio (Notes 3 and 10)	756,237	878,018
Liabilities due under split interest agreements (Note 9)	1,019,357	819,584
Bonds and notes payable (Note 10)	5,503,199	5,664,679
Accrued retirement obligations (Note 11)	1,078,647	1,216,251
Government loan advances (Note 5)	35,807	44,748
TOTAL LIABILITIES	11,301,041	11,292,723
NET ASSETS	63,375,074	50,169,716
TOTAL LIABILITIES AND NET ASSETS	\$ 74,676,115	\$ 61,462,439

	Without donor restrictions	With donor restrictions	June 30	
			2021	2020
NET ASSETS:				
General Operating Account (GOA) (Note 8)	\$ 6,588,391	\$ 2,847,600	\$ 9,435,991	\$ 7,677,143
Endowment (Note 8)	9,423,055	43,742,698	53,165,753	41,894,380
Split interest agreements (Note 9)		773,330	773,330	598,193
TOTAL NET ASSETS	\$ 16,011,446	\$ 47,363,628	\$ 63,375,074	\$ 50,169,716

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

STATEMENTS OF CHANGES IN NET ASSETS WITH GENERAL OPERATING ACCOUNT DETAIL

with summarized financial information for the year ended June 30, 2020

		Without Donor Restrictions	With Donor Restrictions	For the year ended June 30	
In thousands of dollars				2021	2020
OPERATING REVENUE:					
Net student income (Notes 2 and 12)	\$	888,284		\$ 888,284	\$ 1,070,156
Sponsored support (Note 13)					
Federal government – direct costs		442,268		442,268	436,552
Federal government – indirect costs		182,750		182,750	179,678
Non-federal sponsors – direct costs		71,314	\$ 188,239	259,553	260,739
Non-federal sponsors – indirect costs		21,573	20,543	42,116	40,552
Total sponsored support		717,905	208,782	926,687	917,521
Gifts for current use (Note 14)					
		142,710	398,249	540,959	477,564
Investment income:					
Endowment returns made available for operations (Note 8)		378,998	1,660,526	2,039,524	1,998,756
GOA returns made available for operations		143,788		143,788	176,174
Other investment income		10,751	5,166	15,917	33,305
Total investment income		533,537	1,665,692	2,199,229	2,208,235
Other revenue (Note 15)					
		693,915		693,915	699,354
Net assets released from restriction		2,138,218	(2,138,218)	0	0
TOTAL OPERATING REVENUE		5,114,569	134,505	5,249,074	5,372,830
OPERATING EXPENSES:					
Salaries and wages		2,076,665		2,076,665	2,131,511
Employee benefits (Note 11)		578,126		578,126	620,752
Services purchased		644,699		644,699	670,485
Depreciation (Note 7)		410,229		410,229	376,855
Space and occupancy		316,916		316,916	364,163
Supplies and equipment		210,697		210,697	243,870
Interest (Note 10)		183,455		183,455	180,727
Scholarships and other student awards (Note 12)		160,744		160,744	163,618
Other expenses (Note 16)		384,825		384,825	630,897
TOTAL OPERATING EXPENSES		4,966,356	0	4,966,356	5,382,878
NET OPERATING SURPLUS/(DEFICIT)		148,213	134,505	282,718	(10,048)
NON-OPERATING ACTIVITIES:					
Income from GOA investments		2,504		2,504	8,808
GOA realized and change in unrealized appreciation, net (Note 3)		1,529,850		1,529,850	281,613
GOA returns made available for operations		(143,787)		(143,787)	(176,174)
Change in pledge balances (Note 6)			(12,362)	(12,362)	(171,440)
Change in interests in trusts held by others			765	765	657
Gifts for facilities and loan funds (Note 14)			135,488	135,488	51,448
Change in retirement obligations (Note 11)		105,987		105,987	(81,927)
Other changes		(162,718)		(162,718)	(12,670)
Transfers between GOA and endowment (Note 8)		1,540	(2,156)	(616)	1,543
Transfers between GOA and split interest agreements (Note 9)			21,019	21,019	11,916
Non-operating net assets released from restrictions		184,495	(184,495)	0	0
TOTAL NON-OPERATING ACTIVITIES		1,517,871	(41,741)	1,476,130	(86,226)
GENERAL OPERATING ACCOUNT NET CHANGE DURING THE YEAR		1,666,084	92,764	1,758,848	(96,274)
Endowment net change during the year		2,048,245	9,223,128	11,271,373	964,680
Split interest agreements net change during the year (Note 9)			175,137	175,137	24,824
NET CHANGE DURING THE YEAR		3,714,329	9,491,029	13,205,358	893,230
Net assets, beginning of year		12,297,117	37,872,599	50,169,716	49,276,486
NET ASSETS, END OF YEAR	\$	16,011,446	\$ 47,363,628	\$ 63,375,074	\$ 50,169,716

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

STATEMENTS OF CHANGES IN NET ASSETS OF THE ENDOWMENT

with summarized financial information for the year ended June 30, 2020

<i>In thousands of dollars</i>	Without Donor Restrictions	With Donor Restrictions	For the year ended June 30	
			2021	2020
Investment return (Note 3):				
Income from general investments	\$ 3,284	\$ 14,639	\$ 17,923	\$ 74,305
Realized and change in unrealized appreciation, net	2,344,997	10,469,783	12,814,780	2,602,126
Total investment return	2,348,281	10,484,422	12,832,703	2,676,431
Endowment returns made available for operations	(378,998)	(1,660,526)	(2,039,524)	(1,998,756)
Net investment return	1,969,283	8,823,896	10,793,179	677,675
Gifts for endowment (Note 14)	49,076	415,943	465,019	469,203
Transfers between endowment and the GOA (Note 8)	(1,540)	2,156	616	(1,543)
Capitalization of split interest agreements (Note 9)		16,830	16,830	12,136
Change in pledge balances (Note 6)		(54,262)	(54,262)	(191,451)
Change in interests in trusts held by others (Note 8)		87,633	87,633	6,331
Other changes	(5,216)	(32,426)	(37,642)	(7,671)
Net assets released from restrictions	36,642	(36,642)	0	0
NET CHANGE DURING THE YEAR	2,048,245	9,223,128	11,271,373	964,680
Net assets of the endowment, beginning of year	7,374,810	34,519,570	41,894,380	40,929,700
NET ASSETS OF THE ENDOWMENT, END OF YEAR	\$ 9,423,055	\$ 43,742,698	\$ 53,165,753	\$ 41,894,380

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

STATEMENTS OF CASH FLOWS

with summarized financial information for the year ended June 30, 2020

In thousands of dollars	For the year ended June 30	
	2021	2020
CASH FLOWS FROM OPERATING ACTIVITIES:		
Change in net assets	\$ 13,205,358	\$ 893,230
Adjustments to reconcile change in net assets to net cash (used in) operating activities:		
Depreciation	410,229	376,855
Amortization of premium and discount related to bonds and notes payable	(38,512)	(28,489)
Realized and change in unrealized appreciation, net	(14,741,458)	(2,940,852)
Change in fair value of interest rate exchange agreements	(12,928)	16,832
Change in interests in trusts held by others	(88,398)	(6,988)
Change in liabilities due under split interest agreements	226,092	(14,147)
Gifts of donated securities	(111,634)	(114,118)
Proceeds from the sales of gifts of unrestricted securities	22,290	18,886
Gifts for restricted purposes	(527,463)	(335,376)
Cost of issuance of debt	362	(4,213)
Loss on disposal of assets	39,033	181,349
Change in accrued retirement obligations	(137,604)	95,707
Non-cash operating lease costs	64,737	25,759
Changes in operating assets and liabilities:		
Receivables, net	(59,751)	33,590
Prepayments and deferred charges	(10,252)	(38,201)
Pledges receivable, net	67,217	362,652
Accounts payable	155,865	(37,995)
Deferred revenue and other liabilities	135,848	77,367
Operating lease liability	(64,727)	(27,070)
NET CASH USED IN OPERATING ACTIVITIES	(1,465,696)	(1,465,222)
CASH FLOWS FROM INVESTING ACTIVITIES:		
Loans made to students, faculty, and staff	(50,412)	(49,990)
Payments received on student, faculty, and staff loans	55,893	52,515
Change in other notes receivable	(10,843)	(1,136)
Proceeds from the sales and maturities of investments	17,206,874	14,837,933
Purchase of investments	(15,952,533)	(13,911,250)
Change associated with repurchase agreements	427,855	296,726
Additions to fixed assets	(472,027)	(764,415)
NET CASH PROVIDED BY INVESTING ACTIVITIES	1,204,807	460,383
CASH FLOWS FROM FINANCING ACTIVITIES:		
Change in overdrafts included in accounts payable	6,377	4,194
Change in split interest liability from new contributions, income and payments to annuitants	(26,319)	(26,013)
Proceeds from issuance of debt		602,131
Debt repayments	(123,330)	(118,099)
Proceeds from the sales of gifts of restricted securities	89,344	95,232
Gifts for restricted purposes	527,463	335,376
Affiliated entity contributions and distributions, net		56
Change in government loan advances	(8,941)	(21,985)
NET CASH PROVIDED BY FINANCING ACTIVITIES	464,594	870,892
NET CHANGE IN CASH	203,705	(133,947)
Cash, beginning of year	1,360,598	1,494,545
CASH, END OF YEAR	\$ 1,564,303	\$ 1,360,598
Cash and cash equivalents (per <i>Balance Sheets</i>)	\$ 224,042	\$ 176,615
Cash and cash equivalents held in investments (<i>Note 3</i>)	1,340,261	1,183,983
TOTAL CASH AND CASH EQUIVALENTS	\$ 1,564,303	\$ 1,360,598
Supplemental disclosure of cash flow information:		
Accounts payable related to fixed asset additions	\$ 40,225	\$ 35,237
Cash paid for interest	\$ 223,715	\$ 212,831
Non-cash proceeds from issuance of debt		\$ 450,000
Use of non-cash proceeds to refinance debt		\$ (450,000)

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

1. UNIVERSITY ORGANIZATION

Harvard University (the “University”) is a private, not-for-profit institution of higher education with approximately 5,200 undergraduate and 13,400 graduate students in fiscal year 2021, as compared to 6,700 undergraduate and 13,600 graduate students in fiscal year 2020. Established in 1636, the University includes the Faculty of Arts and Sciences, the John A. Paulson School of Engineering and Applied Sciences, the Division of Continuing Education, ten graduate and professional Schools, the Radcliffe Institute for Advanced Study, a variety of research museums and institutes, and an extensive library system to support the teaching and research activities of the Harvard community.

The President and Fellows of Harvard College (the “Corporation”), a governing board of the University, has oversight responsibility for all of the University’s financial affairs. The Corporation delegates substantial authority to the Schools and departments for the management of their resources and operations.

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

2. SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES

Basis of presentation

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

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

The financial statements include certain prior year summarized comparative information in total, not by net asset classification. This information is not presented in sufficient detail to conform to generally accepted accounting principles (GAAP). Accordingly, such information should be read in conjunction with the University’s financial statements for the year ended June 30, 2020, from which the summarized information is derived. Certain prior year amounts have been reclassified to conform to current year presentation.

Net asset classifications

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

WITHOUT DONOR RESTRICTIONS — Net assets not subject to donor-imposed restrictions. Funds invested in fixed assets and unrestricted endowment funds comprise 85% of the University’s net assets without donor-imposed restrictions as of June 30, 2021. In addition, this category includes gifts and endowment income balances where the donor restriction has been met, University-designated loan funds, and other current funds.

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

Revenues from sources other than contributions are generally reported as increases in net assets without donor restrictions. Expenses are reported as decreases in net assets without donor restrictions. Gains and losses

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

Liquidity and availability

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

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

	June 30,	
	2021	2020
FINANCIAL ASSETS		
Cash and cash equivalents	\$ 224,042	\$ 176,615
Receivables, net	322,482	262,731
Pledge receivables due in one year	347,284	340,017
Cash, cash equivalents and short-term investments held separately by General Operating Account (GOA) ¹	1,539,736	1,559,440
Endowment and GOA returns made available for operations in the following year	2,308,724	2,184,082
TOTAL FINANCIAL ASSETS AVAILABLE WITHIN ONE YEAR	\$ 4,742,268	\$ 4,522,885
LIQUIDITY RESOURCES		
Credit facility, undrawn balance	1,500,000	1,500,000
Tax-exempt commercial paper, undrawn balance	1,000,000	1,000,000
Taxable commercial paper, undrawn balance	2,000,000	2,000,000
TOTAL FINANCIAL ASSETS AND RESOURCES AVAILABLE WITHIN ONE YEAR	\$ 9,242,268	\$ 9,022,885

¹ The University has a policy of maintaining liquidity outside of the General Investment Account (GIA) through a combination of cash, cash equivalents and short-term investments, as referenced on page 8 in the Financial Overview.

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

While the University has no intention of doing so, there are additional investments held by the University and the endowment that could be liquidated in the event of an unexpected disruption. While a portion of the endowment is subject to donor restrictions, there is \$9.4 billion and \$7.4 billion in endowment funds without donor restrictions at June 30, 2021 and 2020, respectively and \$4.8 billion and \$3.5 billion of General Operating Account investments (GOA) at June 30, 2021 and 2020, respectively, that could be accessed with the approval of the Corporation and subject to the redemption provisions described in Note 3.

Revenue recognition

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

Student income is derived from degree programs as well as executive and continuing education programs and includes tuition, fees, and board and lodging. Student income is recognized ratably over the academic period of the course or program offered based on time elapsed, and scholarships awarded to students reduce the amount of revenue recognized. The University’s individual schools have various billing and academic cycles and the majority of our programs are completed within the fiscal year. Student income received in advance of services to be rendered is recorded as deferred revenue which totaled \$226.0 million and \$208.3 million, respectively, at June 30, 2021 and 2020, which are primarily recognized in the subsequent fiscal year.

Total student income of \$888.3 million and \$1.1 billion was recorded during the years ended June 30, 2021 and 2020, respectively. Student tuition, fees, board and lodging at published rates is summarized as follows for the years ended June 30, 2021 and 2020 (in thousands of dollars):

	2021	2020
Undergraduate program	\$ 278,412	\$ 347,292
Graduate and professional degree programs	581,259	613,614
Continuing education and executive programs	395,076	425,867
Board and lodging	69,496	164,372

Scholarships applied to student charges were \$435,959 and \$480,989 for the years ended June 30, 2021 and 2020, respectively.

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

Sponsored support of \$926.7 million includes support from governmental and private sources. Certain sponsored arrangements are considered exchange arrangements, and revenue under these agreements is recognized based on the University's fulfillment of the contract, which is typically based on costs incurred or the achievement of milestones. Other sponsored support is considered contribution revenue, which is recognized when any donor-imposed conditions have been met, if applicable. Sponsored conditional contributions received, where the barrier to entitlement is not yet overcome, are recorded as deferred revenues of \$68.2 million and \$51.2 million as of June 30, 2021 and 2020, respectively. As of June 30, 2021, the University also had \$1.6 billion awarded but not yet expended contributions related to sponsored programs where the condition had not yet been met. This is subject to federal appropriations. Funding received in advance of recognition is recorded as deferred revenue.

Other revenue of \$693.9 million includes several revenue streams considered exchange contracts with customers totaling \$605.3 million for fiscal year 2021. These revenues are recognized at the point in time goods or services are provided. Deferred revenues related to other income of \$102.1 million and \$107.6 million were recorded as of June 30, 2021 and 2020, which are primarily recognized in the subsequent fiscal year.

Measure of operations

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

Collections

The University's vast array of museums and libraries contains priceless works of art, historical treasures, literary works, and artifacts. These collections are protected and preserved for public exhibition, education, research, and the furtherance of public service. They are neither disposed of for financial gain nor encumbered in any manner. Accordingly, such collections are not recorded for financial statement purposes. Proceeds on deaccessioned collections are used to fund new collections or the direct care of existing collections. Direct care is defined as general care for the preservation of a collection.

Insurance programs

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

the primary retiree health plan, and all health and dental plans for active employees. The University's claims liabilities are recognized as incurred, including claims that have been incurred but not reported, and are included in operating expenses.

Tax

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

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

Use of estimates

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

New accounting pronouncements

Effective July 1, 2020, the University adopted ASU 2019-03, *Not-for-Profit Entities (Topic 958): Updating the Definition of Collections*. The accounting pronouncement updates the definition of "collections" to align with the definition used by the American Alliance of Museums. The change in the definition requires proceeds from sales of collections to be used for acquisition of additional collections or direct care of existing collections. The University adopted ASU 2019-03 prospectively. The guidance did not have a significant impact on the University's consolidated financial statements.

Effective July 1, 2019, the University adopted ASU 2017-07, *Compensation—Retirement Benefits (Topic 715): Improving the Presentation of Net Periodic Pension Cost and Net Periodic Postretirement Benefit Cost*. The amendment requires the bifurcation of net benefit cost where the service cost component continues to be presented with other employee costs in operating income (or capitalized in assets) and the other components (such as interest, expected return on plan

assets, and amortization of actuarially determined amounts) are required to be presented as a nonoperating change in net assets without restrictions. The effects of adopting this amendment resulted in the inclusion of all net periodic benefits costs, other than services costs, in "Change in retirement obligations", reported in nonoperating activities in the *Statement of Changes in Net Assets with General Operating Account Detail*.

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

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

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

Effective July 1, 2019, the University adopted ASU 2016-01, *Recognition and Measurement of Financial Assets and Financial Liabilities*, which addresses certain aspects of recognition, measurement, presentation and disclosure of financial instruments. This guidance allows an entity to choose, investment-by-investment, to report an equity investment that neither has a readily determinable fair value, nor qualifies for the practical expedient for fair value estimation using net asset value (NAV), at its cost minus impairment (if any), plus or minus changes resulting from observable price changes in orderly transactions for the identical or similar investment of the same issue. Impairment of such

investments must be assessed qualitatively at each reporting period. Entities must disclose their financial assets and liabilities by measurement category and form of asset either on the face of the statement of financial position or in the accompanying notes. This guidance did not have a significant impact on the University's consolidated financial statements.

In August 2018, FASB issued ASU No. 2018-15, *Intangibles—Goodwill and Other—Internal-Use Software (Subtopic 350-40): Customer's Accounting for Implementation Costs Incurred in a Cloud Computing Arrangement That is a Service Contract*. This guidance aligns the requirements for capitalizing implementation costs incurred in a hosting arrangement that is a service contract with the requirements for capitalizing implementation costs incurred to develop or obtain internal-use software or software licenses. The amendment is effective for fiscal year 2022 and the University is evaluating the impact of the new guidance on the consolidated financial statements.

3. INVESTMENTS

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

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

The University's investment holdings as of June 30, 2021 and 2020 are summarized in the following table (in thousands of dollars):

	2021	2020
Investment portfolio assets		
Pooled general investment account assets	\$ 58,566,261	\$ 45,681,215
Other investments	2,575,489	2,430,226
Investment portfolio, at fair value	61,141,750	48,111,441
Securities pledged to counterparties, at fair value	290,388	214,010
TOTAL INVESTMENT ASSETS	61,432,138	48,325,451
Pooled general investment account liabilities	724,924	833,777
Interest rate exchange agreement	31,313	44,241
TOTAL OTHER LIABILITIES ASSOCIATED WITH THE INVESTMENT PORTFOLIO	756,237	878,018
TOTAL INVESTMENTS, NET	\$ 60,675,901	\$ 47,447,433

As of June 30, 2021 and 2020, University net investments were comprised of the following components (in thousands of dollars):

	2021	2020
POOLED GENERAL INVESTMENT ACCOUNT		
Endowment ¹	\$ 51,279,803	\$ 39,982,475
General operating account	4,777,430	3,486,092
Split interest agreements	1,021,209	803,490
Other internally designated funds	1,053,283	789,391
TOTAL POOLED GENERAL INVESTMENT ACCOUNT NET ASSETS	\$ 58,131,725	\$ 45,061,448
OTHER INVESTMENTS OUTSIDE THE GENERAL INVESTMENT ACCOUNT		
General operating and other investments ²	1,772,698	1,771,698
Split interest agreements	771,478	614,287
TOTAL OTHER INVESTMENTS OUTSIDE THE GENERAL INVESTMENT ACCOUNT	\$ 2,544,176	\$ 2,385,985
TOTAL INVESTMENTS, NET	\$ 60,675,901	\$ 47,447,433

¹ Includes only the portion of the endowment invested in the GIA and excludes pledges, interests in trusts held by others, other non-GIA investments, and GIA interest and dividends net of all internal and external management fees and expenses.

² Consists primarily of repurchase agreements, US government securities, money markets, and fixed income funds, net of unsettled trades, totaling \$1,563,715 and \$1,582,042 as of June 30, 2021 and 2020, respectively.

Investment return

A summary of the University's total return on investments for fiscal years 2021 and 2020 is presented below (in thousands of dollars):

	2021	2020
Return on pooled general investment account:		
Realized and change in unrealized appreciation, net	\$ 14,522,886	\$ 2,931,018
Interest, dividend, fees, and expenses, net	20,216	83,852
Total return on pooled general investment account ¹	14,543,102	3,014,870
Return on other investments:		
Realized and change in unrealized appreciation, net	218,572	9,834
Interest, dividend, fees, and expenses, net	26,093	45,685
Total return on other investments	\$ 244,665	\$ 55,519
Realized and change in unrealized appreciation/(depreciation) on interest rate exchange agreement, net	9,272	(19,070)
TOTAL RETURN ON INVESTMENTS²	\$ 14,797,039	\$ 3,051,319

¹ Net of internal and all external management fees and expenses.

² Total return on investments is comprised of returns on the endowment, GOA, Split Interest Agreements and other.

Fair value hierarchy

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

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

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

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

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

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

The following is a summary of the levels within the fair value hierarchy for those investment assets and liabilities subject to fair value measurement as of June 30, 2021 and summarized as of June 30, 2020 (in thousands of dollars):

	2021				2020	
	Level 1	Level 2	Level 3	NAV as Practical Expedient	Total	Total
ASSETS:						
Cash and cash equivalents ¹	\$ 1,340,261				\$ 1,340,261	\$ 1,183,983
Repurchase agreements		\$ 50,063			50,063	477,918
Domestic equity	2,354,507			\$ 1,956,807	4,311,314	3,615,658
Foreign equity	183,240			1,971,680	2,154,920	1,867,503
Global equity				2,351,562	2,351,562	1,542,236
Domestic fixed income	1,256,155	10,003		1,133,259	2,399,417	2,712,900
Foreign fixed income	1,920				1,920	20,729
Emerging market equity and debt	32,465			4,529,686	4,562,151	3,256,427
High yield	2,051		\$ 273,571		275,622	267,728
Hedge funds				18,030,872	18,030,872	15,515,652
Private equity			1,891,116	18,796,946	20,688,062	11,047,118
Natural resources	14,300			449,978	464,278	1,329,924
Real estate			23,859	2,883,237	2,907,096	3,209,643
Inflation-indexed bonds	1,156,229				1,156,229	935,440
Due from brokers	3,981	5,305	4,625		13,911	30,293
Other investments		35,532			35,532	6,712
INVESTMENT ASSETS SUBJECT TO FAIR VALUE LEVELING	\$ 6,345,109	\$ 100,903	\$ 2,193,171	\$ 52,104,027	\$ 60,743,210	\$ 47,019,864
Other investment assets not subject to fair value ²					688,928	1,305,587
TOTAL INVESTMENT ASSETS³					\$ 61,432,138	\$ 48,325,451
Interests in trusts held by others ⁴			515,757		515,757	427,359
NON-INVESTMENT ASSETS SUBJECT TO FAIR VALUE LEVELING			\$ 515,757		\$ 515,757	\$ 427,359
TOTAL ASSETS					\$ 61,947,895	\$ 48,752,810
LIABILITIES:						
Due to brokers ⁵		\$ 131,941			\$ 131,941	\$ 132,065
Other liabilities subject to fair value			\$ 148,728		148,728	246,410
INVESTMENT LIABILITIES SUBJECT TO FAIR VALUE LEVELING	\$ 0	\$ 131,941	\$ 148,728		\$ 280,669	\$ 378,475
Other investment liabilities not subject to fair value ⁶					475,568	499,543
TOTAL INVESTMENT LIABILITIES					\$ 756,237	\$ 878,018
Liabilities due under split interest agreements ⁴		1,019,357			1,019,357	819,584
NON-INVESTMENT LIABILITIES SUBJECT TO FAIR VALUE LEVELING		\$ 1,019,357			\$ 1,019,357	\$ 819,584
TOTAL LIABILITIES					\$ 1,775,594	\$ 1,697,602

¹ This excludes money markets held in "Cash and cash equivalents" on the Balance Sheets of \$65.0 million as of June 30, 2021 and 2020, respectively, which are Level 1 investments.

² As of June 30, 2021, other assets not subject to fair value consists primarily of receivables for transactions that settled subsequent to the balance sheet date of \$612,801. As of June 30, 2020, other assets not subject to fair value consists primarily of receivables for transactions that settled subsequent to the balance sheet date of \$1,189,950, before eliminating inter-company balances, and consolidated assets of \$146,365.

³ As of June 30, 2021 and 2020, total investment assets, net equal \$60,675,901 and \$47,447,433, respectively.

⁴ Amounts excluded from investments and included separately on the University's Balance Sheets.

⁵ Includes fair value of an interest rate exchange agreement on the University's debt portfolio of \$31,313 and \$44,241 as of June 30, 2021 and 2020, respectively.

⁶ As of June 30, 2021 and 2020, other liabilities not subject to fair value include consolidated liabilities of \$11,925 and \$167,795, respectively.

The following is a rollforward of Level 3 investments for the year ended June 30, 2021 and the condensed June 30, 2020 rollforward of Level 3 investments (in thousands of dollars).

	Beginning balance as of July 1, 2020	Net realized gains/ (losses)	Net change in unrealized appreciation/ (depreciation) ¹	Purchases/ contributions	Sales/ distributions	Transfers into Level 3	Transfers out of Level 3	Ending balance as of June 30, 2021
INVESTMENT ASSETS:								
High yield	\$ 264,452	\$ 2,142	\$ 7,806	\$ 84,723	\$ (85,552)			\$ 273,571
Private equity	477,858	(528)	388,813	400,340	(66,815)	\$ 740,943	\$ (49,495)	1,891,116
Natural resources	1,291,911	(5,756)	(317,207)	27,009	(570,840)		(425,117)	0
Real estate	24,627		(5,768)	5,000				23,859
Due from brokers	4,629		(4)					4,625
Other investments	6,712						(6,712)	0
INVESTMENT ASSETS SUBJECT TO FAIR VALUE LEVELING								
	\$ 2,070,189	\$ (4,142)	\$ 73,640	\$ 517,072	\$ (723,207)	\$ 740,943	\$ (481,324)	\$ 2,193,171
Interests in trusts held by others	427,359		90,076		(1,464)		(214)	\$ 515,757
NON-INVESTMENT ASSETS SUBJECT TO FAIR VALUE LEVELING								
	\$ 427,359		\$ 90,076		\$ (1,464)		\$ (214)	\$ 515,757
TOTAL ASSETS SUBJECT TO FAIR VALUE LEVELING								
	\$ 2,497,548	\$ (4,142)	\$ 163,716	\$ 517,072	\$ (724,671)	\$ 740,943	\$ (481,538)	\$ 2,708,928
INVESTMENT LIABILITIES:								
Other liabilities subject to fair value	\$ 246,410			\$ (134,980)	\$ 37,298			\$ 148,728
TOTAL LIABILITIES SUBJECT TO FAIR VALUE LEVELING								
	\$ 246,410	\$ 0	\$ 0	\$ (134,980)	\$ 37,298			\$ 148,728
NET ASSETS SUBJECT TO FAIR VALUE LEVELING								
	\$ 2,251,138	\$ (4,142)	\$ 163,716	\$ 652,052	\$ (761,969)	\$ 740,943	\$ (481,538)	\$ 2,560,200

¹ Total change in unrealized appreciation/(depreciation) relating to Level 3 investment assets and investment liabilities still held by the University at June 30, 2021 is \$206,133 and is reflected in "Realized and change in unrealized appreciation, net" in the Statements of Changes in Net Assets.

	Beginning balance as of July 1, 2019	Net realized gains/ (losses)	Net change in unrealized appreciation/ (depreciation) ¹	Purchases/ contributions	Sales/ distributions	Transfers into Level 3	Transfers out of Level 3	Ending balance as of June 30, 2020
PRIOR YEAR NET ASSETS SUBJECT TO FAIR VALUE LEVELING								
	\$ 2,594,348	\$ 87,592	\$ (198,967)	\$ 1,000,889	\$ (1,232,724)	\$ 0	\$ 0	\$ 2,251,138

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

At June 30, 2021, certain private equity investments were valued using a secondary sale price and were transferred into Level 3. In October 2020, the University sold a portion of its direct natural resource portfolio to a third-party and transferred a portion to an external investment manager. As of June 30, 2021, the fair value of these investments are measured at NAV as reported by the external investment manager.

Investment strategy and risk

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

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

Investments in global markets involve a multitude of risks such as price, interest rate, market, sovereign, currency, liquidity and credit risks, amongst many others. The University manages exposure to these risks through established policies and procedures related to its ongoing investment diligence and operational due

diligence programs. The University also considers manager concentration risk. As of June 30, 2021, 18% of the GIA NAV was invested across 5 diversified fund managers. The University anticipates that the value and composition of its investments may, from time to time, fluctuate substantially in response to any or all of the risks described herein.

Cash and cash equivalents

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

Repurchase agreements

The University *Balance Sheets* display the assets generated by repurchase transactions. The University enters into these transactions under agreements containing master netting arrangements. The University requires the fair value of the collateral exchanged under these agreements to be equal to or in excess of the total amount of the agreement, including interest where applicable. At June 30, 2021 and 2020 the University had gross asset repurchase agreements of \$0.1 billion and \$0.5 billion which were fully collateralized. The University does not offset repurchase agreements that are subject to master netting arrangements or similar arrangements on the University’s *Balance Sheets*.

Dividend and interest income

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

Traded securities

Instruments listed or traded on a securities exchange are valued at the last quoted price on the primary exchange where the security is traded. Where there is no readily available closing price on the valuation date, long positions are valued at the bid price and short positions are valued at the ask price. Restrictions that are attached to a security are factored into the valuation of that security, reflective of the

estimated impact of those restrictions. Investments in non-exchange traded debt and equity instruments are primarily valued using inputs provided by independent pricing services or by broker/dealers who actively make markets in these securities.

Derivatives

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

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

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

The following table presents information about the University's derivatives by primary risk exposure for the years ended June 30, 2021 and 2020 (in thousands of dollars):

	As of June 30, 2021			For the year ended June 30, 2021	As of June 30, 2020			For the year ended June 30, 2020
	Average Quarterly Notional	Gross derivative assets	Gross derivative liabilities	Net profit/ (loss) ⁴	Average Quarterly Notional	Gross derivative assets	Gross derivative liabilities	Net profit/ (loss) ⁴
Primary risk exposure								
Equity instruments	\$ 5,904,280	\$ 88,221	\$ 179,670	\$ (726,954)	\$ 3,443,938	\$ 59,867	\$ 122,097	\$ 92,208
Fixed income instruments ¹	117,000		31,313	9,272	117,000		44,241	(19,070)
Currency instruments	7,951	5,966	5,963	3,163	21,020	10	14	(150)
Credit instruments	4,747	4,729		(49)	4,723	4,703		21
SUBTOTAL		\$ 98,916	\$ 216,946	\$ (714,568)		\$ 64,580	\$ 166,352	\$ 73,009
TOTAL COUNTERPARTY NETTING²		(85,005)	(85,005)			(34,984)	(34,984)	
NET AMOUNTS INCLUDED IN THE BALANCE SHEETS³		13,911	131,941			29,596	131,368	
Collateral								
Cash collateral received/posted		5,467						
Securities collateral received/posted ⁵		3,183	250,592			23,586	189,564	
TOTAL SECURITIES COLLATERAL RECEIVED/POSTED⁵		8,650	250,592			23,586	189,564	
NET AMOUNT		5,261	(118,651)			6,010	(58,196)	
NET AMOUNT IN ACCORDANCE WITH ASC 210⁶		\$ 5,261	\$ 0			\$ 6,010	\$ 0	

¹ For the year ended June 30, 2021 and 2020 the balance represents an interest rate exchange swap on the University's debt portfolio.

² GAAP permits the netting of derivative assets and liabilities and the related cash collateral received and paid when a legally enforceable master netting agreement exists between the University and a derivative counterparty.

³ Included within the "Investment portfolio, at fair value" and "Other liabilities associated with the investment portfolio" line items of the Balance Sheets.

⁴ Included within "Realized and change in unrealized appreciation, net" within the Statements of Changes in Net Assets.

⁵ Includes securities posted to meet initial margin requirements on exchange traded futures.

⁶ Excludes any over-collateralized amounts in accordance with ASC 210.

External advisors

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

certain restrictions at the measurement date. In addition, the University evaluates these external advisors through ongoing due diligence and operational oversight, which includes an analysis of an advisor's use of and adherence to fair value principles.

The University, as an investor, has commitments to make periodic contributions in future periods to the investments managed by external advisors. The amounts of these expected disbursements as of June 30, 2021 and 2020 are disclosed below (in thousands of dollars):

	As of June 30, 2021			As of June 30, 2020		
	Fair value ¹	Remaining unfunded commitments	Estimated remaining life ²	Fair value ¹	Remaining unfunded commitments	Estimated remaining life ²
Private equity funds	\$ 16,240,336	\$ 7,688,416	4 – 10	\$ 9,017,706	\$ 6,813,583	4 – 10
Real estate funds	2,881,483	1,856,495	4 – 10	3,154,066	1,734,565	4 – 10
Other externally managed funds ³	3,654,807	2,921,156	2 – 8	3,386,081	2,221,023	2 – 8
TOTAL	\$ 22,776,626	\$ 12,466,067		\$ 15,557,853	\$ 10,769,171	

¹ Represents the fair value of the funded portion of investments with remaining unfunded commitments.

² The estimated remaining lives of these funds, expressed in years, are forward-looking projections based on the University's estimates and could vary significantly depending on the investment decisions of external managers, changes in the University's investment portfolio, and other circumstances.

³ Investments in externally managed funds primarily include exposures to hedge funds and natural resources.

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

Direct investments

Direct investments are primarily valued using a combination of independent appraisals and/or one or more industry standard valuation techniques (e.g., income approach, market approach, or cost approach). The income approach is primarily based on the investment's anticipated future income using one of two principal methods: the discounted cash flow method or the capitalization method. Inputs and estimates developed and utilized with these techniques may be subjective, unobservable, and require judgment regarding significant matters such as estimating the amount and timing of future cash flows, forward pricing assumptions and the selection of discount and capitalization rates that appropriately reflect market and credit risks.

The market approach derives investment value through comparison to recent and relevant market transactions with similar investment characteristics. The cost approach is utilized when the cost of the investment is determined to be the best representation of fair value. This method is typically used for newly purchased or undeveloped assets. When applicable, the University examines market data and collaborates closely with independent appraisers to arrive at the best estimation of fair value for each respective asset. The HMC Board of Directors discusses the valuation process and results with HMC management, and makes determinations on significant matters impacting valuation that may arise from time to time.

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

Significant unobservable input by asset class ¹	As of June 30, 2021			As of June 30, 2020		
	Level 3 investments subject to fair value (in thousands of dollars) ²	Range of inputs utilized in valuation model ³	Weighted average of inputs utilized in valuation model	Level 3 investments subject to fair value (in thousands of dollars) ²	Range of inputs utilized in valuation model ³	Weighted average of inputs utilized in valuation model
Natural resources:	\$ 0			\$ 469,811		
Income approach discount rate				6.0% – 16.0%	10.8%	
Price per planted hectare				\$1,073 – \$156,351	\$36,646	
Price per gross hectare				\$168 – \$57,530	\$10,393	
Discount for lack of marketability				2.0% – 20.0%	16.7%	
High yield:	239,573			264,027		
Income approach discount rate		6.0% – 16.1%	7.7%	6.8% – 15.8%	8.6%	
Collateral coverage recovery rate		100%	100%	100%	100%	
EBITDA multiple		7.5x – 19.0x	8.8x	9.0x – 19.5x	13.3x	
Real estate:	17,391			22,868		
Income approach discount rate		14.5%	14.5%	14.5%	14.5%	
Income approach growth rate		3.0%	3.0%	3.0%	3.0%	
Discount for lack of marketability		15.0%	15.0%	15.0%	15.0%	
Private equity:	207,033			150,294		
Income approach discount rate		6.0% – 15.0%	14.3%	6.0% – 15.0%	14.0%	
EBITDA multiple		9.0x	9.0x	8.7x	8.7x	
Cost multiple		2.5x	2.5x			
Other liabilities subject to fair value	(148,728)			(246,410)		
Loan to value				5.0% – 43.5%	16.8%	
Market interest rate		2.5% – 2.8%	2.6%	3.5% – 6.5%	3.9%	
NET AMOUNT	\$ 315,269			\$ 660,590		

¹ The fair value of investments may be determined using multiple valuation techniques.

² Included within Level 3 investments is \$2,244,931 and \$1,590,548 as of June 30, 2021 and 2020, respectively, which were valued using other inputs including, but not limited to, single source broker quotations, third party pricing and recent transactions.

³ The range of inputs encompasses a variety of investment types within each asset class.

4. RECEIVABLES

The major components of receivables, net of reserves for doubtful accounts of \$13.7 million and \$13.9 million as of June 30, 2021 and 2020, respectively, were as follows (in thousands of dollars):

	2021	2020
Executive education	\$ 73,400	\$ 50,155
Federal sponsored support	57,321	61,939
Publications	55,058	48,085
Leases	32,731	0
Tuition and fees	20,774	22,108
Non-federal sponsored support	11,536	9,950
Gift receipts	7,985	9,263
Other	63,677	61,231
TOTAL RECEIVABLES, NET	\$ 322,482	\$ 262,731

5. NOTES RECEIVABLE

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

	2021			2020		
	Receivable	Allowance	Net	Receivable	Allowance	Net
Student loans:						
Government revolving	\$ 31,933	\$ 832	\$ 31,101	\$ 39,382	\$ 999	\$ 38,383
Institutional	77,306	2,237	75,069	83,000	2,284	80,716
Total student loans	109,239	3,069	106,170	122,382	3,283	119,099
Faculty and staff loans	252,090	179	251,911	244,642	179	244,463
Other loans	57,615	38,100	19,515	39,257	30,585	8,672
TOTAL	\$ 418,944	\$ 41,348	\$ 377,596	\$ 406,281	\$ 34,047	\$ 372,234

Government revolving loans are funded principally with federal advances to the University under the Perkins Loan, the Health Professions Student Loan (HPSL) and Loans for Disadvantaged Students in Health Professions (LDS) Programs. These advances totaled \$35.8 million and \$44.7 million as of June 30, 2021 and 2020, respectively, and are classified as liabilities in the *Balance Sheets*. During fiscal year 2018, the Perkins Loan Program ended and as a result the University began making required repayments to the government. In fiscal year 2021 the University made the requested \$8.8 million repayment. Interest earned on the revolving and institutional loan programs is reinvested to support additional loans. The repayment and interest rate terms of the institutional loans vary considerably.

Faculty and staff notes receivable primarily consists of mortgage and educational loans. Mortgages include shared appreciation loans, loans that bear interest at the applicable federal rate and interest-free loans. In addition,

certain mortgages that bear interest at the current market rate or applicable federal rate may be subsidized for an initial period. The educational loans are primarily zero-interest loans.

The University assesses the adequacy of the allowance for doubtful accounts by evaluating the loan portfolio, including such factors as the differing economic risks associated with each loan category, the financial condition of specific borrowers, the economic environment in which the borrowers operate, the level of delinquent loans, the value of any collateral, and, where applicable, the existence of any guarantees or indemnifications. In addition to these factors, the University reviews the aging of the loans receivable and the default rate in comparison to prior years. The allowance is adjusted based on these reviews. The University considers the allowance at June 30, 2021 and 2020 to be reasonable and adequate to absorb potential credit losses inherent in the loan portfolio.

6. PLEDGES RECEIVABLE

Unconditional promises to donate to the University in the future are initially recorded at fair value (pledge net of discount) and subsequently amortized over the expected payment period, net of an allowance for uncollectible pledges. The University's indicative 1- to 5-year taxable unsecured borrowing rate is used to discount pledges receivable at the end of the fiscal year they are received. Discounts of \$76.3 million and \$100.2 million for the years ended June 30, 2021 and 2020, respectively, were calculated using rates ranging from 0.77% to 3.10%.

Pledges receivable included in the financial statements as of June 30, 2021 and 2020 are expected to be realized as follows (in thousands of dollars):

	2021	2020
Within one year	\$ 660,300	\$ 651,310
Between one and five years	1,673,468	1,646,632
More than five years	257,232	353,091
Less: discount and allowance for uncollectible pledges	(255,042)	(247,858)
TOTAL PLEDGES RECEIVABLE, NET	\$ 2,335,958	\$ 2,403,175

Pledges receivable as of June 30, 2021 and 2020 have been designated for the following purposes (in thousands of dollars):

	2021	2020
General Operating Account balances:		
Gifts for current use	\$ 533,952	\$ 624,440
Non-federal sponsored awards	184,113	193,641
Construction and life income	352,802	265,741
Total General Operating Account balances	1,070,867	1,083,822
Endowment	1,265,091	1,319,353
TOTAL PLEDGES RECEIVABLE, NET	\$ 2,335,958	\$ 2,403,175

Because of uncertainties with regard to realizability and valuation, bequest intentions and other conditional promises are only recognized as assets if and when the specified conditions are met. Non-bequest conditional pledges totaled \$115.1 million and \$56.7 million as of June 30, 2021 and 2020, respectively.

7. FIXED ASSETS

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

The major categories of fixed assets as of June 30, 2021 and 2020 are summarized as follows (in thousands of dollars):

	2021	2020	Estimated useful life (in years)
Research facilities	\$ 3,364,398	\$ 2,494,333	*
Classroom and office facilities	2,395,225	2,401,659	35
Housing facilities	2,408,385	2,264,147	35
Other facilities	460,640	455,847	35
Service facilities	1,065,126	804,215	35
Libraries	534,930	509,095	35
Museums and assembly facilities	987,906	979,825	35
Athletic facilities	259,254	246,291	35
Land	1,024,697	1,042,977	N/A
Construction in progress	401,316	1,401,333	N/A
Equipment	1,429,723	1,367,264	**
SUBTOTAL AT COST	14,331,600	13,966,986	
Less: accumulated depreciation	(5,868,592)	(5,531,731)	
FIXED ASSETS, NET	\$ 8,463,008	\$ 8,435,255	

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

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

Certain University facilities are subject to restrictions as to use, structural modifications, and ownership transfer. Included in the fixed asset balances are restricted facilities with a net book value of \$280.7 million and \$304.6 million as of June 30, 2021 and 2020, respectively.

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

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

The University has asset retirement obligations of \$200.1 million and \$200.7 million, which are included in “Deferred revenue and other liabilities” in the *Balance Sheets* as of June 30, 2021 and 2020, respectively.

Right-of-use assets from finance leases of \$59.0 million and \$67.0 million are included in “Fixed assets” in the *Balance Sheets* as of June 30, 2021 and 2020, respectively. Lease liabilities from finance leases of \$96.8 million and \$104.9 million are included in “Deferred revenue and other liabilities” in the *Balance Sheets* as of June 30, 2021 and 2020, respectively.

8. ENDOWMENT AND GENERAL OPERATING ACCOUNT NET ASSETS

The University’s net assets consisted of the following as of June 30, 2021 and 2020 (in thousands of dollars):

	2021			2020		
	Without donor restrictions	With donor restrictions	Total	Without donor restrictions	With donor restrictions	Total
NATURE OF SPECIFIC NET ASSETS						
Perpetual endowment funds		\$ 8,562,120	\$ 8,562,120		\$ 8,178,308	\$ 8,178,308
Endowment funds and appreciation subject to distribution policy and appropriation		33,434,803	33,434,803		24,628,858	24,628,858
Endowment funds without restriction, board designated and subject to distribution policy	\$ 9,423,055		9,423,055	\$ 7,374,810		7,374,810
Pledge balances		1,265,091	1,265,091		1,319,353	1,319,353
Interests in trusts held by others		480,684	480,684		393,051	393,051
TOTAL ENDOWMENT	9,423,055	43,742,698	53,165,753	7,374,810	34,519,570	41,894,380
Operating	6,588,391		6,588,391	4,922,307		4,922,307
Unexpended contributions and endowment distributions		2,747,969	2,747,969		2,655,577	2,655,577
Student loan funds		99,631	99,631		99,259	99,259
TOTAL GENERAL OPERATING ACCOUNT	6,588,391	2,847,600	9,435,991	4,922,307	2,754,836	7,677,143
Split interest agreements (<i>Note 9</i>)		773,330	773,330		598,193	598,193
TOTAL NET ASSETS	\$ 16,011,446	\$ 47,363,628	\$ 63,375,074	\$ 12,297,117	\$ 37,872,599	\$ 50,169,716

Endowment

The University’s endowment consists of 14,172 separate funds established over many years for a wide variety of purposes. Endowment fund balances are classified and reported in accordance with donor specifications and state law. The endowment includes both donor-restricted endowment funds and funds functioning as endowment which are not subject to donor-imposed restrictions, however decisions to spend their principal require the approval of the Corporation and therefore are classified as Board-designated endowment funds. The majority of the endowment is invested in the GIA (*Note 3*).

The University is also the beneficiary of certain irrevocable trusts held and administered by others. The estimated fair values of trust assets, which include the present values of expected future cash flows from outside trusts and the

fair value of the underlying assets of perpetual trusts, are recognized as assets and increases in net assets when the required trust documentation is provided to the University.

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

The University’s endowment distribution policies are designed to preserve the value of the endowment in real terms (after inflation) and generate a predictable stream of available income. Each fall, the Corporation approves the endowment distribution for the following fiscal year. Distribution from an underwater endowment fund (a fund below its historic dollar value) could continue in limited and defined circumstances under the University’s endowment

distribution policy. To the extent that the fair value of a donor restricted endowment fund falls below its historic dollar value it would be reported as a reduction of net assets with donor restrictions.

At June 30, 2021 and 2020, funds in a deficit position were reported in net assets with donor restrictions and are comprised as follows (in thousands):

	2021	2020
Fair value of underwater endowment funds	\$ 23,401	\$ 20,355
Historic dollar value	24,253	22,605
TOTAL DEFICIT OF UNDERWATER ENDOWMENT FUNDS	\$ (852)	\$ (2,250)

The endowment distribution is based in part on presumptive guidance from a formula that is intended to provide budgetary stability by smoothing the impact of annual investment gains and losses. The formula's inputs reflect expectations about long-term returns and inflation rates. For fiscal year 2021, the endowment distribution approved by the Corporation (prior to decapitalizations) was equal to 5.2% of the fair value of the endowment invested in the GIA as of the beginning of the fiscal year. The total

endowment distribution made available for operations was \$2.0 billion in fiscal year 2021 and 2020.

Each year the Corporation also approves certain decapitalizations from the endowment to support strategic, mission-critical activities or objectives that are typically one-time or time-limited and therefore, are excluded from net operating surplus. These decapitalizations totaled \$32.8 million and \$35.7 million in fiscal year 2021 and 2020, respectively. These additional decapitalizations, in combination with the endowment distribution, resulted in an aggregate payout rate of 5.2% in fiscal year 2021 and 2020.

General operating account

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

9. SPLIT INTEREST AGREEMENTS

Under split interest agreements, donors enter into trust or other arrangements with the University in which the University receives benefits that are shared with other beneficiaries and institutions. Split interest agreement (SIA) investment assets are invested primarily in the GIA and publicly-traded securities, a small segment is managed by an external advisor, and all are recorded in the "Investment portfolio, at fair value" in the University's *Balance Sheets*. Additional disclosures are included in Note 3. Associated liabilities are recorded at the present value of estimated future payments due to beneficiaries and other institutions.

These liabilities are calculated using the University's current taxable unsecured borrowing rate of 1.0% and 0.8% as of June 30, 2021 and 2020, respectively. All split interest agreement net assets and the respective activity are reported within net assets with donor restrictions. Upon termination of a split interest agreement, the net assets are transferred to the GOA or endowment accordingly.

The changes in split interest agreement net assets for fiscal years 2021 and 2020 were as follows (in thousands of dollars):

	2021	2020
Investment return:		
Investment income	\$ 9,961	\$ 13,101
Realized and change in unrealized appreciation, net	402,937	37,420
Total investment return	412,898	50,521
Gifts (Note 14) ¹	10,761	9,709
Payments to annuitants	(71,358)	(66,351)
Transfers to endowment	(16,830)	(12,136)
Transfers between SIA and the GOA	(21,019)	(11,916)
Change in liabilities and other adjustments	(139,315)	54,997
NET CHANGE DURING THE YEAR	175,137	24,824
Total split interest agreement net assets, beginning of year	598,193	573,369
TOTAL SPLIT INTEREST AGREEMENT NET ASSETS, END OF YEAR	\$ 773,330	\$ 598,193

¹ Shown at net present value. The undiscounted value of these gifts was \$35,078 and \$27,237 for the years ended June 30, 2021 and 2020, respectively.

Split interest agreement net assets as of June 30, 2021 and 2020 consisted of the following (in thousands of dollars):

	2021	2020
Split interest agreement investments (Note 3)		
Charitable remainder trusts	\$ 1,170,553	\$ 936,417
Charitable lead trusts	116,254	94,401
Charitable gift annuities	342,917	255,696
Pooled income funds	162,963	131,263
Total split interest agreement investments ¹	1,792,687	1,417,777
Liabilities due under split interest agreements:		
Amounts due to beneficiaries	(930,260)	(751,217)
Amounts due to other institutions	(89,097)	(68,367)
Total liabilities due under split interest agreements	(1,019,357)	(819,584)
TOTAL SPLIT INTEREST AGREEMENT NET ASSETS, END OF YEAR	\$ 773,330	\$ 598,193

¹ For the year ended June 30, 2021, \$1,021,209 of SIA investments are held in the pooled general investment account and \$771,478 of SIA investments are held in the other investments outside the general investment account. For the year ended June 30, 2020, \$803,490 of SIA investments are held in the pooled general investment account and \$614,287 of SIA investments are held in the other investments outside the general investment account. Refer to Note 3.

10. BONDS AND NOTES PAYABLE

Bonds and notes payable as of June 30, 2021 and 2020 were as follows (in thousands of dollars):

	Fiscal year of issue	Fiscal year of final maturity ¹	Effective rate ²	Outstanding principal	
				2021 ³	2020 ³
TAX-EXEMPT BONDS:					
Variable-rate demand bonds:					
Series R – daily	2000-2006	2032	0.03%	\$ 131,200	\$ 131,200
Series Y – weekly	2000	2036	0.06%	117,905	117,905
Total variable-rate bonds			0.04%	249,105	249,105
Fixed-rate bonds:					
Series 2010A	2010	2022	4.9%	49,590	49,590
Series 2010B	2011	2024	4.9%		97,740
Series 2016A	2017	2041	4.0%	1,487,675	1,513,780
Series 2020A	2020	2031	4.0%	346,680	346,680
Total fixed-rate bonds			4.0%	1,883,945	2,007,790
TOTAL TAX-EXEMPT BONDS			3.6%	2,133,050	2,256,895
TAXABLE BONDS					
Fixed-rate bonds:					
Series 2008A	2008	2039	5.6%	243,000	243,000
Series 2008D	2009	2039	6.5%	500,000	500,000
Series 2010C	2011	2041	4.9%	300,000	300,000
Series 2013A	2013	2038	3.4%	402,000	402,000
Series 2016B	2017	2057	3.3%	1,000,000	1,000,000
Series 2020B	2020	2051	2.5%	500,000	500,000
Total fixed-rate bonds			4.1%	2,945,000	2,945,000
TOTAL TAXABLE BONDS			4.1%	2,945,000	2,945,000
Notes payable	Various	Various	Various	88,355	87,841
Unamortized original issuance premium/discount, net				355,467	395,046
Unamortized bond issuance costs				(18,673)	(20,103)
TOTAL BONDS AND NOTES PAYABLE			3.9%	\$ 5,503,199	\$ 5,664,679

¹ The weighted average maturity of the portfolio on June 30, 2021 was 18.3 years.

² For fixed-rate bonds the effective rate is calculated as: coupon rate x (par value / book value*). For variable rate bonds the effective rate is the average rate of the past one year. Effective rates are exclusive of the Series Y interest rate exchange agreement, which would increase the overall portfolio rate by 0.07% (3.95% vs. 3.88%). *Book value = par value + unamortized original issuance premium - unamortized original issuance discount, underwriter's discount, and cost of issuance.

³ Par only — balances exclude original issuance premiums/discounts.

Interest expense related to bonds and notes payable, net of amortization and accretion, was \$180.6 million and \$179.5 million for fiscal 2021 and 2020, respectively. The interest expense in the *Statement of Changes in Net Assets with General Operating Account Detail* includes additional components related to capital leases. Excluding unamortized discounts and premiums, unamortized underwriter's discount and unamortized cost of issuance, scheduled principal payments are (in thousands of dollars):

Fiscal year	Principal payments
2022	\$ 96,904
2023	42,060
2024	92,253
2025	41,441
2026	100,967
Thereafter	4,792,780
TOTAL PRINCIPAL PAYMENTS	\$ 5,166,405

Bonds and notes payable decreased from \$5.7 billion to \$5.5 billion, primarily due to maturing fixed rate bonds and fixed rate bonds paid down at their call date.

The University is rated Aaa by Moody's Investors Service and AAA by Standard & Poor's Global Ratings. The Moody's Investors Service rating was re-affirmed in February 2021 and the Standard & Poor's rating was re-affirmed in March 2021.

The University has one unsecured, revolving credit facility with a syndicate of banks totaling \$1.5 billion, which expires in March 2024. The facility was renewed in March of 2021. There was no outstanding drawn balance on the credit facility at June 30, 2021.

11. EMPLOYEE BENEFITS

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

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

The University has taxable commercial paper available totaling \$2 billion. There was no outstanding drawn balance on the taxable commercial paper line at June 30, 2021.

The University has tax-exempt commercial paper available totaling \$1 billion. There was no outstanding drawn balance on the tax-exempt commercial paper line at June 30, 2021.

As of June 30, 2021, the University had \$249.1 million of variable rate demand bonds outstanding with either a daily or weekly interest rate reset. In the event that the University receives notice of any optional tender on its variable rate demand bonds, or if the bonds become subject to mandatory tender, the purchase price of the bonds will be paid from the remarketing of such bonds. However, if the remarketing proceeds are insufficient, the University will have a general obligation to purchase the bonds tendered with cash on hand.

Interest rate exchange agreements

In fiscal 2021, the University had in place one interest rate exchange agreement, used to manage the interest cost and risk associated with a portion of its outstanding variable rate debt.

The fair value of the interest rate exchange agreement was \$(31.3) million and \$(44.2) million as of June 30, 2021 and 2020, respectively, and is recorded in "Other liabilities associated with the investment portfolio" on the University's *Balance Sheets*.

457(b) deferred compensation plan

The University offers a non-qualified deferred compensation plan under Internal Revenue Code 457(b) to a select group of employees. There is no University contribution related to the plan. The University has recorded both an asset and a liability related to the plan of \$207.8 million as of June 30, 2021 and \$163.6 million as of June 30, 2020; the assets are included in "Prepayments and deferred charges" and the liabilities are included in "Deferred revenue and other liabilities" on the University's *Balance Sheets*.

Pension benefits

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

In accordance with the Employee Retirement Income Security Act (ERISA) requirements, the University has established a trust to hold plan assets for its defined benefit pension plans. The fair value of the trust's assets was \$1.1 billion and \$959.4 million as of June 30, 2021 and 2020, respectively. During fiscal years 2021 and 2020, the University made cash contributions to the defined benefit pension plan of \$61.2 million and \$53.5 million, respectively. The University recorded expenses for its defined contribution plans of \$153.4 million for fiscal year 2021 and 2020.

Postretirement health benefits

The University provides postretirement health coverage and life insurance to substantially all of its employees. As of June 30, 2021, the University had internally designated and invested \$1.0 billion in the GIA to fund the postretirement health benefit accrued liability of \$1.0 billion. As of June 30, 2020, the University had internally designated and invested \$779.8 million to fund the postretirement health benefit accrued liability of \$955.6 million.

The following table sets forth the pension and postretirement plans' funded status that is reported in the *Balance Sheets* as of June 30, 2021 and 2020 (in thousands of dollars):

	Pension benefits		Postretirement health benefits	
	2021	2020	2021	2020
Change in projected benefit obligation:				
Projected benefit obligation, beginning of year	\$ 1,220,094	\$ 1,129,397	\$ 955,571	\$ 854,639
Service cost	12,950	11,926	32,961	31,880
Interest cost	36,673	40,625	32,728	31,529
Plan participants' contributions			8,361	6,999
Plan change			0	(10,339)
Gross benefits paid	(103,677)	(45,090)	(25,125)	(24,256)
Actuarial (gain)/loss	(26,555)	42,471	(4,101)	65,119
Special termination benefits ¹	460	40,765		
PROJECTED BENEFIT OBLIGATION, END OF YEAR²	1,139,945	1,220,094	1,000,395	955,571
Change in plan assets:				
Fair value of plan assets, beginning of year	959,414	863,492		
Actual return on plan assets	144,732	87,479		
Employer contributions	61,224	53,533	16,765	17,257
Plan participants' contributions			8,361	6,999
Gross benefits paid	(103,677)	(45,090)	(25,126)	(24,256)
FAIR VALUE OF PLAN ASSETS, END OF YEAR	1,061,693	959,414	0	0
UNFUNDED STATUS³	\$ (78,252)	\$ (260,680)	\$ (1,000,395)	\$ (955,571)

¹ Represents costs associated with a voluntary early retirement program offered to plan participants.

² Measurement of the University's pension obligation including assumed salary increases (required by GAAP).

³ These amounts totaling \$1,078,647 as of June 30, 2021 and \$1,216,251 as of June 30, 2020 are included in the "Accrued Retirement Obligations" line in the Balance Sheets.

The accumulated pension benefit obligation (ABO) is a measurement of the University's pension benefit obligation, based on past and present compensation levels and does not include assumed salary increases. The ABO was \$1.0 billion at June 30, 2021 and 2020. The funded status disclosed

above has been prepared in accordance with pension accounting rules. When measured on an IRS funding basis, which informs the University's required cash contribution amount, the plan was overfunded at January 1, 2021.

Net periodic benefit cost

Components of net periodic benefit cost and other amounts recognized in the *Statements of Changes in Net Assets with General Operating Account Detail* are summarized as follows for the years ended June 30, 2021 and 2020 (in thousands of dollars):

	Pension benefits		Postretirement health benefits	
	2021	2020	2021	2020
Components of net periodic benefit cost:				
Operating				
Service cost	\$ 12,950	\$ 11,926	\$ 32,961	\$ 31,880
Special termination benefits	460	40,765		
Total operating activity	13,410	52,691	32,961	31,880
Non-operating				
Interest cost	36,673	40,625	32,728	31,529
Expected return on plan assets	(47,300)	(44,856)		
Amortization of:				
Actuarial loss/(gain)	16,230	15,682	(5,116)	(11,189)
Prior service cost/(credit)	288	288	(7,929)	(7,126)
Total non-operating activity ¹	5,891	11,739	19,683	13,214
Total net periodic benefit cost	19,301	64,430	52,644	45,094
Other amounts recognized in non-operating activity in unrestricted net assets:				
Current year net actuarial loss/(gain)	(123,987)	(151)	(4,101)	65,119
Current year net prior service cost			0	(10,339)
Amortization of:				
Prior service (cost)/credit	(288)	(288)	7,929	7,126
Actuarial (loss)/gain	(16,230)	(15,682)	5,116	11,189
Total other amounts recognized in non-operating activity ¹	(140,505)	(16,121)	8,944	73,095
TOTAL RECOGNIZED IN STATEMENTS OF CHANGES IN NET ASSETS WITH GENERAL OPERATING ACCOUNT DETAIL	\$ (121,204)	\$ 48,309	\$ 61,588	\$ 118,189

¹ These amounts totaling (\$105,987) in fiscal year 2021 and \$81,927 in fiscal year 2020 include gains and losses and other changes in the actuarially determined benefit obligations arising in the current period but that have not yet been reflected within net periodic benefit cost/(income) and are included in the "Change in Retirement Obligations" line in the Statements of Changes in Net Assets with General Operating Account Detail.

Cumulative amounts recognized as non-operating changes in net assets without donor restrictions are summarized as follows for the years ended June 30, 2021 and 2020 (in thousands of dollars):

	Pension benefits		Postretirement health benefits	
	2021	2020	2021	2020
Net actuarial loss/(gain)	\$ 40,596	\$ 180,814	\$ (167,932)	\$ (168,947)
Prior service cost/(credit)	607	894	(41,670)	(49,599)
CUMULATIVE AMOUNTS RECOGNIZED IN UNRESTRICTED NET ASSETS	\$ 41,203	\$ 181,708	\$ (209,602)	\$ (218,546)

The estimated net actuarial loss and prior service cost for the defined benefit plan that will be amortized from net assets without donor restrictions into net periodic benefit (income)/cost in fiscal year 2022 are \$7.2 million and \$0.3 million, respectively. The estimated net actuarial gain

and estimated prior service credit for the postretirement health benefit that will be amortized from net assets without donor restrictions into net periodic benefit (income)/cost in fiscal year 2022 are (\$4.6) million and (\$7.9) million, respectively.

Other assumptions and health care cost trend rates used in determining the year end obligation as well as the net periodic benefit (income)/cost of the pension and postretirement health plans are summarized as follows for fiscal years 2021 and 2020:

	Pension benefits		Postretirement health benefits	
	2021	2020	2021	2020
Weighted-average assumptions used to determine benefit obligation as of June 30:				
Discount rate	3.15%	3.15%	3.20%	3.35%
Compensation increase trend:				
Average rate	3.50%	3.50%	3.50%	3.50%
Cash balance (or similar formula) interest crediting rate	5.25%	5.25%	N/A	N/A
Pension increases for in-payment benefits increase trend:				
Average rate	0.25%	N/A	N/A	N/A
Initial rate	N/A	0.00%	N/A	N/A
Ultimate rate	N/A	0.25%	N/A	N/A
Year of ultimate	N/A	2025	N/A	N/A
Health care cost trend rate:				
Current rate	N/A	N/A	6.50%	6.50%
Ultimate rate	N/A	N/A	4.75%	4.75%
Year of ultimate	N/A	N/A	2025	2025
Weighted-average assumptions used to determine net periodic benefit (income)/cost:				
Discount rate	3.15%	3.65%	3.35%	3.60%
Expected long-term rate of return on plan assets	5.50%	5.50%	N/A	N/A
Compensation increase trend:				
Average rate	3.50%	3.50%	3.50%	3.50%
Initial rate	0.00%	N/A	N/A	N/A
Ultimate rate	0.25%	N/A	N/A	N/A
Year of ultimate	2025	N/A	N/A	N/A
Pension increases for in-payment benefits increase trend:				
Average rate	0.00%	0.15%	N/A	N/A
Health care cost trend rate:				
Initial rate	N/A	N/A	6.50%	5.00%
Ultimate rate	N/A	N/A	4.75%	4.75%
Year of ultimate	N/A	N/A	2025	2023

As an indicator of sensitivity, a one percentage point change in assumed health care cost trend rate would affect 2021 as shown in the following table (in thousands of dollars):

	1% point increase	1% point decrease
Effect on 2021 postretirement health benefits service and interest cost	\$ 13,947	\$ (15,316)
Effect on postretirement health benefits obligation as of June 30, 2021	191,261	(149,959)

The expected return on pension plan assets is determined by utilizing an independent advisor's capital markets model, which takes into account the expected real return, before inflation, for each of the pension portfolio's asset classes, as well as the correlation of any one asset class to every other asset class. This model calculates the real returns and correlations and derives an expected real return for the

entire portfolio, given the percentage weighting allocated to each asset class. After calculating the expected real return, an assessment is made to accommodate the expected inflation rate for the forthcoming period. The final expected return on assets is the aggregate of the expected real return plus the expected inflation rate.

Plan assets

The actual asset allocation of the investment portfolio for the pension plan at June 30, 2021 and 2020, along with target allocations for June 30, 2022, is as follows:

	2022 Target	June 30, 2021	June 30, 2020
Asset allocation by category for pension plan:			
Fixed income securities	70-80%	77.0%	59.0%
Equity securities	15-30	19.8	36.2
Cash	1-5	3.2	1.5
Hedge funds	0	0.0	3.3
TOTAL OF ASSET ALLOCATION CATEGORIES		100.0%	100.0%

The University's investment strategy for the pension portfolio is to manage the assets across a broad and diversified range of investment categories, both domestic and international. The objective is to achieve a risk-adjusted return that is in line with the long-term obligations that the University has to the pension plan beneficiaries. During fiscal year 2021, the University increased its allocation to fixed income securities to manage the interest rate volatility associated with its pension obligations. The

University expects to keep this strategy in future years. The investment program is also managed to comply with all ERISA regulations.

The following is a summary of the levels within the fair value hierarchy for the pension plan assets subject to fair value measurement as of June 30, 2021 and 2020 (in thousands of dollars):

	2021				2020	
	Level 1	Level 2	Level 3	NAV as practical expedient	Total	Total
PLAN ASSETS:						
Cash and short-term investments	\$ 57,999				\$ 57,999	\$ 25,541
Domestic equity	104,391				104,391	182,940
Foreign equity	31,792			\$ 43,730	75,522	99,918
Domestic fixed income	208,742	\$ 198,379		339,858	746,979	542,181
Foreign fixed income		8,479			8,479	16,213
Emerging market equity and debt	22,895				22,895	57,584
Hedge funds				321	321	30,700
Private equity				1,799	1,799	2,184
Due from brokers					0	67
High yield				41,215	41,215	0
PLAN ASSETS SUBJECT TO FAIR VALUE LEVELING	\$ 425,819	\$ 206,858	\$ 0	\$ 426,923	\$ 1,059,600	\$ 957,328
Other assets not subject to fair value					2,126	2,086
TOTAL PLAN ASSETS					\$ 1,061,726	\$ 959,414
PLAN LIABILITIES:						
Due to brokers	(33)				(33)	
PLAN LIABILITIES SUBJECT TO FAIR VALUE LEVELING	\$ (33)	\$ 0	\$ 0	\$ 0	\$ (33)	\$ 0
Other liabilities not subject to fair value						
TOTAL PLAN LIABILITIES					\$ (33)	\$ 0

Expected future benefit payments

Employer contributions of \$20.0 million are expected for fiscal year 2022 to fund the pension benefit plan.

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

Fiscal year	Expected benefit payments	
	Pension	Postretirement health
2022	\$ 78,669	\$ 25,926
2023	62,790	28,164
2024	64,342	29,905
2025	65,800	31,516
2026	67,129	33,409
Thereafter	349,262	199,047

12. STUDENT FINANCIAL AID

Financial aid granted to students in fiscal 2021 and 2020 is summarized as follows (in thousands of dollars):

	2021	2020
Scholarships and other student awards:		
Scholarships applied to student income ¹	\$ 435,959	\$ 480,989
Scholarships and other student awards paid directly to students	160,744	163,618
Total scholarships and other student awards	596,703	644,607
Student employment	84,273	81,922
Student loans	13,064	14,765
Agency financial aid ²	21,279	19,839
TOTAL STUDENT FINANCIAL AID	\$ 715,319	\$ 761,133

¹ Includes \$164,232 and \$202,221 in fiscal 2021 and 2020, respectively, of undergraduate scholarships applied to student income.

² Represents aid from sponsors for which the University acts as an agent for the recipient.

13. SPONSORED SUPPORT

Total expenditures funded by US government sponsors or by institutions that subcontract federally sponsored projects to the University were \$625.0 million and \$616.2 million in fiscal year 2021 and 2020, respectively. The University's principal source of federally sponsored funds is the Department of Health and Human Services. The University also has many non-federal sources of sponsored awards and grants, including corporations, foundations, state and local governments, foreign governments, and research institutes.

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

14. GIFTS

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

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

Gifts received for the year ended June 30, 2021 are summarized as follows (in thousands of dollars):

	2021	
	Gifts received	Donor redesignations/ other changes
Current use	\$ 545,756	\$ (4,797)
Non-federal sponsored grants	211,571	(2,789)
Endowment funds	462,991	2,028
Split interest agreements ¹	10,761	
Loan funds and facilities	133,211	2,277
TOTAL GIFTS	\$ 1,364,290	\$ (3,281)

¹ Shown at net present value. The undiscounted value of these gifts was \$35,078 for the year ended June 30, 2021.

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

	2020	
	Gifts received	Donor redesignations/ other changes
		Total
Current use	\$ 483,673	\$ (6,109)
Non-federal sponsored grants	206,394	(3,767)
Endowment funds	463,743	5,460
Split interest agreements ¹	9,709	
Loan funds and facilities	51,241	207
TOTAL GIFTS	\$ 1,214,760	\$ (4,209)

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

15. OTHER REVENUE

The major components of other revenue for the years ended June 30, 2021 and 2020 were as follows (in thousands of dollars):

	2021	2020
Publications and royalties from copyrights	\$ 253,113	\$ 239,002
Royalties from the commercialization of intellectual property ¹	107,164	61,947
Services income	96,443	114,410
Rental and parking ²	87,646	125,573
Health and clinic fees	61,461	68,813
Sales income	23,703	28,460
Interest income	7,079	9,364
Other student income	3,582	4,215
Other	53,724	47,570
TOTAL OTHER REVENUE	\$ 693,915	\$ 699,354

¹ Excludes distribution to external parties.

² The University is the lessor of space and facilities under operating leases, the income from which is included in rental and parking.

16. OTHER EXPENSES

The major components of other expenses for the years ended June 30, 2021 and 2020 were as follows (in thousands of dollars):

	2021	2020
Subcontract expenses under sponsored projects	\$ 161,910	\$ 152,916
Advertising	40,444	38,022
Publishing	39,316	45,164
Taxes and fees	35,294	31,597
Fixed asset impairments	20,804	182,435
Insurance	15,749	17,176
Postage	13,265	14,765
Telephone	10,968	12,783
Travel	1,965	71,080
Other	45,110	64,959
TOTAL OTHER EXPENSES	\$ 384,825	\$ 630,897

17. FUNCTIONAL AND NATURAL CLASSIFICATION OF OPERATING EXPENSES

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

Operating expenses by functional classification for the years ended June 30, 2021 and 2020 were as follows (in thousands of dollars):

	2021				
	Instruction and academic support	Research ¹	Student services and support	Institutional support and auxiliary	Total
Salaries and wages	\$ 1,111,716	\$ 306,555	\$ 140,842	\$ 517,552	\$ 2,076,665
Employee benefits	305,452	76,866	52,679	143,129	578,126
Services purchased	354,294	91,675	45,082	153,648	644,699
Depreciation	47,187	147,189	16,487	199,366	410,229
Space and occupancy	82,442	56,063	27,742	150,669	316,916
Supplies and equipment	68,242	55,497	34,903	52,055	210,697
Interest	17,840	31,203	12,653	121,759	183,455
Scholarships and other student awards			160,744		160,744
Other expense and overhead allocations	(39,494)	400,693	15,301	8,325	384,825
TOTAL EXPENSES	\$ 1,947,679	\$ 1,165,741	\$ 506,433	\$ 1,346,503	\$ 4,966,356

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

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

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

18. COMMITMENTS AND CONTINGENCIES

Lease commitments

The University is the lessee of equipment and space under operating (rental) and finance leases. The University determines whether a contract is a lease at inception. Identified leases are subsequently measured, classified, and recognized at lease commencement. The University categorizes leases with contractual terms longer than twelve months as either operating or finance. The University's leases generally have terms that range from one to five years for equipment and one to twenty years for property, with certain leases inclusive of renewal options

if they are considered to be reasonably assured at lease commencement. Right of use assets and lease liabilities for operating leases are included in "Operating leases—right of use assets" and "Operating lease liabilities", respectively, in the *Balance Sheets*. Finance lease right of use assets and lease liabilities are included in "Fixed assets" and "Deferred revenue and other liabilities", respectively, in the *Balance Sheets*. Lease assets represent our right to use an underlying asset for the lease term and lease liabilities represent our obligation to make lease payments arising from the lease.

Operating and finance lease right of use assets and associated lease liabilities are recognized based on the present value of future minimum lease payments to be made over the expected lease term, using the collateralized incremental borrowing rate at the commencement date in determining the present value of future payments. Rent expense related to operating leases, including short-term leases and variable lease payments, was \$95.4 million and \$93.9 million in fiscal year 2021 and 2020, respectively.

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

	Operating	Finance
2022	\$ 83,819	\$ 13,594
2023	80,491	13,655
2024	71,463	11,271
2025	64,936	11,660
2026	62,073	21,749
Thereafter	499,558	107,020
TOTAL LEASE PAYMENTS	862,340	178,949
Less: Imputed Interest	(159,468)	(82,126)
PRESENT VALUE OF LEASE LIABILITIES	\$ 702,872	\$ 96,823

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

	June 30, 2021
Weighted Average Remaining Lease Term	
Operating Leases	15.7 YEARS
Finance Leases	14.7 YEARS
Weighted Average Discount Rate	
Operating Leases	2.4%
Finance Leases	2.4%

The University leases properties to customers under agreements that are classified as operating or sales-type leases. Property leased to others in operating lease arrangements are included in "Fixed assets" in the *Balance Sheets*. Revenue is recognized to the extent that amounts are determined to be collectible.

Fixed asset-related commitments

The University has various commitments for capital projects involving construction and renovation of certain facilities, real estate acquisitions, and equipment purchases, for which the outstanding commitments as of June 30, 2021 totaled approximately \$197.0 million.

Environmental remediation

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

General

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

The University has evaluated subsequent events through October 13, 2021, the date the financial statements were issued. The University has concluded that no material events have occurred that are not accounted for in the accompanying financial statements or disclosed in the accompanying notes.

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APPENDIX C

DEFINITIONS OF CERTAIN TERMS AND SUMMARY OF CERTAIN PROVISIONS OF THE AGREEMENT

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DEFINITIONS OF CERTAIN TERMS

In addition to terms defined elsewhere in the Official Statement, the following terms have the following meanings in the Loan and Trust Agreement dated as of May 1, 2022 (the “Agreement”) among the Issuer, the Institution and the Trustee, unless the context otherwise requires:

“Bond Counsel” means any attorney at law or firm of attorneys selected by the Institution and satisfactory to the Issuer, of nationally recognized standing in matters pertaining to the federal tax exemption of interest on bonds issued by states and political subdivisions, and duly admitted to practice law before the highest court of any state of the United States.

“Bond Year” means each one year period (or shorter period from the date of issue of the Bonds) ending on June 30.

“Bondowners” or “Owners” means the registered owners of the Bonds from time to time as shown in the books kept by the Trustee as bond registrar and transfer agent.

“Bonds” means the Massachusetts Development Finance Agency Revenue Bonds, Harvard University Issue, Series 2022B (Green Bonds) dated the date of original delivery and any Bond or Bonds duly issued in exchange or replacement therefor.

“Business Day” means a day on which banks in the city in which the principal corporate trust office of the Trustee at which the Agreement is principally administered is located (which on the date of the Agreement is Pittsburgh, Pennsylvania) is not required or authorized to remain closed and on which the New York Stock Exchange is not closed.

“Continuing Disclosure Agreement” means the Continuing Disclosure Agreement dated as of the date of issuance of the Bonds between the Institution and the Trustee, as dissemination agent, as originally executed and as it may be amended from time to time in accordance with its terms.

“Government or Equivalent Obligations” means (i) obligations issued or guaranteed by the United States; (ii) obligations, debentures, notes or other evidence of indebtedness issued or guaranteed by the Federal Home Loan Mortgage Corporation, the Federal National Mortgage Association, the Federal Home Loan Bank System, the Farm Credit System, or any other agency or instrumentality of the United States of America; (iii) certificates evidencing ownership of the right to the payment of the principal of and interest on obligations described in clause (i), provided that such obligations are held in the custody of a bank or trust company satisfactory to the Trustee or the Issuer, as the case may be, in a special account separate from the general assets of such custodian; (iv) shares of any open-end or closed-end management type investment company or trust registered under 15 U.S.C. §80(a)-1 et seq., provided that the portfolio of such investment company or trust is limited to obligations described in clause (i) and repurchase agreements fully collateralized by such obligations, and provided further that such investment company or trust shall take custody of such collateral either directly or through a custodian satisfactory to the Trustee or the Issuer; and (v) tax-exempt obligations of any state or instrumentality, agency or political subdivision thereof, which are fully secured by, or payments of principal and interest on which shall be made from, obligations described in clause (i) above.

“IRC” means the Internal Revenue Code of 1986, as it may be amended and applied to the Bonds from time to time.

“Moody’s” means Moody’s Investors Service, Inc., or any successor rating agency.

APPENDIX C

“Opinion of Bond Counsel” means an opinion of Bond Counsel to the effect that the matter or action in question will not have an adverse impact on the tax-exempt status of the Bonds for federal income tax purposes.

“Outstanding,” when used to modify Bonds, refers to Bonds issued under the Agreement, excluding: (i) Bonds that have been exchanged or replaced, or delivered to the Trustee for credit against a principal payment or a sinking fund installment; (ii) Bonds that have been paid; (iii) Bonds that have become due and for the payment of which moneys have been duly provided; and (iv) Bonds for which there have been irrevocably set aside sufficient funds, or Government or Equivalent Obligations described in clause (i), (ii) or (iv) of the definition thereof bearing interest at such rates, and with such maturities as will provide sufficient funds, to pay or redeem them, provided, however, that if any such Bonds are to be redeemed prior to maturity, the Issuer shall have taken all action necessary to redeem such Bonds and notice of such redemption shall have been duly mailed in accordance with the Agreement or irrevocable instructions so to mail shall have been given to the Trustee.

“Project” means the financing and refinancing of certain capital projects for educational purposes, all of which are and will be owned by the Institution and located or to be located at the following locations in Massachusetts: (i) the Institution’s main campus in Cambridge, generally bounded by Beacon Street on the East, Memorial Drive on the South and West, and Wendell Street on the North, or adjacent or proximate sites (the “Main Campus”); and (ii) the Institution’s facilities in Allston, generally bounded by Soldiers Field Road on the West, North, and East, Cambridge Street on the South, and North Harvard Street on the South-West, or adjacent or proximate sites (the “Allston Campus”), including, but not limited to, the following:

- (i) Renovation of Adams House undergraduate housing complex located on the Main Campus at 63 Mount Auburn Street, 53 Bow Street, 13-2 Bow Street and 26 Plympton Street, Cambridge;
- (ii) Renovation of Soldiers Field Park Buildings 1 and 2 graduate housing located on the Allston Campus at 111 Western Avenue, Allston;
- (iii) Construction of the Science and Engineering Complex and related improvements, located on the Allston Campus at 150 Western Avenue, Allston;
- (iv) Construction of new student and Harvard affiliate housing on the Allston Campus at the property currently known as 100 South Campus Drive, Allston;
- (v) Renovation of Eliot House undergraduate housing complex located on the Main Campus at 101 Dunster Street, Cambridge; and
- (vi) Other comparable facilities and assets to be operated in connection with the Institution’s higher educational mission on the Main Campus or the Allston Campus.

“Project Costs” means the costs of issuing the Bonds and carrying out the Project, including repayment of external loans and internal advances for the same to the extent permitted by the Agreement and the Tax Certificate, working capital expenditures directly related to the Project to the extent permitted by the IRC, and interest prior to, during and for up to one year after construction is substantially complete, but excluding general administrative expenses, overhead of the Institution and interest on internal advances.

“Revenues” means all rates, payments, fees, charges, and other income and receipts, including proceeds of insurance, eminent domain and sale, and including proceeds derived from any security

provided under the Agreement, payable to the Issuer or the Trustee under the Agreement, excluding administrative fees of the Issuer, fees of the Trustee, reimbursements to the Issuer or the Trustee for expenses incurred by the Issuer or the Trustee, and indemnification of the Issuer and the Trustee.

“S&P” means S&P Global Ratings, a division of S&P Global Inc., or any successor rating agency.

“Tax Certificate” means the Tax Certificate and Agreement between the Issuer and the Institution dated the date of original issuance of the Bonds, as amended or supplemented from time to time.

“UCC” means the Massachusetts Uniform Commercial Code, as it may be amended from time to time.

Words importing persons include firms, associations and corporations, and the singular and plural forms of words shall be deemed interchangeable wherever appropriate.

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APPENDIX C

SUMMARY OF CERTAIN PROVISIONS OF THE AGREEMENT

The following is a summary, prepared by Hinckley, Allen & Snyder LLP, Bond Counsel, of certain provisions of the Agreement. This summary does not purport to be complete and reference is made to the Agreement for full and complete statements of such and all provisions.

Establishment of Funds

The following funds have been established and shall be maintained with the Trustee for the account of the Institution, to be held in trust by the Trustee and applied subject to the provisions of the Agreement:

Debt Service Fund;
Redemption Fund; and
Expense Fund

(Sections 303, 304 and 306)

Debt Service Fund

A Debt Service Fund is established with the Trustee and moneys shall be deposited therein as provided in the Agreement. The moneys in the Debt Service Fund and any investments held as part of such fund shall be held in trust and, except as otherwise provided, shall be applied solely to the payment of the principal (including sinking fund installments, if any), redemption premium, if any, and interest on the Bonds. Promptly after July 15 of each Bond Year, if the amount deposited by the Institution in the Debt Service Fund during the preceding Bond Year pursuant to the Agreement was in excess of the amount required to be so deposited, the Trustee shall transfer such excess to the Institution unless there is then an Event of Default known to the Trustee with respect to payments to the Debt Service Fund or to the Trustee or the Issuer, in which case the excess shall be applied to such payments. (Section 303)

Redemption Fund

A Redemption Fund is established with the Trustee and moneys shall be deposited therein as provided in the Agreement. The moneys in the Redemption Fund and any investments held as a part of such fund shall be held in trust and, except as otherwise provided, shall be applied by the Trustee on behalf of the Issuer solely to the redemption of the Bonds. The Trustee may, and upon written direction of the Institution for specific purchases shall, apply moneys in the Redemption Fund to the purchase of Bonds for cancellation at prices not exceeding the price at which they are then redeemable (or next redeemable if they are not then redeemable), but not within the forty-five (45) days preceding a redemption date.

If on any date the amount in the Debt Service Fund is less than the amount then required to be applied by the Trustee to pay the principal (including sinking fund installments, if any) and interest then due on the Bonds, the Trustee shall apply the amount in the Redemption Fund (other than any sum irrevocably set aside for the redemption of particular Bonds or required to purchase Bonds under outstanding purchase contracts) to the Debt Service Fund to the extent necessary to meet the deficiency. The Institution shall remain liable for any sums which it has not paid into the Debt Service Fund and any subsequent payment thereof shall be used to restore the funds so applied.

If any moneys in the Redemption Fund are invested in accordance with the Agreement and a loss results therefrom so that there are insufficient funds to pay the redemption price of Bonds called for redemption in accordance with the Agreement, then the Institution shall immediately supply the deficiency. (Section 304)

Expense Fund

An Expense Fund is established to be held by the Trustee and proceeds of the Bonds shall be deposited therein as provided in the Agreement. The moneys in the Expense Fund and any investments held as part of such fund shall be held in trust and, except as otherwise provided in the Agreement, shall be applied by the Trustee at the written direction of the Institution solely to the payment or reimbursement of the costs of issuing the Bonds. The Trustee shall pay from the Expense Fund at the direction of the Institution the costs of issuing the Bonds, the reasonable fees and expenses of financial consultants and bond counsel, the reasonable fees and expenses of the Trustee incurred prior to the completion of the Project in accordance with the Agreement, any recording or similar fees and any expenses of the Institution in connection with the issuance of the Bonds as directed by the Institution. Earnings on the Expense Fund shall not be applied to pay costs of issuance of the Bonds, but shall be transferred to the Debt Service Fund. To the extent the Expense Fund is insufficient to pay any of the above costs, the Institution shall be liable for the deficiency. (Section 306)

Rebate

No later than sixty (60) days after the close of the fifth Bond Year following the date of issue of the Bonds (or any earlier date that may be required to comply with IRC §148(f) and the regulations thereunder (the “Rebate Provision”)) and the close of each fifth Bond Year thereafter, the Institution shall pay to the United States on behalf of the Issuer the full amount of rebate then required to be paid under the Rebate Provision. Within sixty (60) days after the Bonds have been paid in full, the Institution shall pay to the United States on behalf of the Issuer the full amount then required to be paid under the Rebate Provision. Each such payment shall be made to the Internal Revenue Service Center, Ogden, Utah 84201 or any successor location specified by the Internal Revenue Service, accompanied by a Form 8038-T (or other similar information reporting form) prepared by the Institution.

No later than fifteen (15) days prior to each date on which a payment could become due under the foregoing paragraph (a “Rebate Payment Date”), the Institution shall deliver to the Issuer and the Trustee a certificate either summarizing the determination that no amount is required to be paid or specifying the amount then required to be paid pursuant to the foregoing paragraph. If the certificate specifies an amount to be paid, (A) such certificate shall be accompanied by (i) a rebate report in form acceptable to the Issuer prepared by a rebate consultant acceptable to the Issuer, (ii) a completed Form 8038-T, in a form acceptable to the Issuer, which is to be signed by an officer of the Issuer, and (iii) a certification of the Institution stating that the Form 8038-T is accurate and complete, and (B) no later than ten (10) days after the Rebate Payment Date the Institution shall furnish to the Issuer and the Trustee a certificate stating that such amount has been timely paid. (Section 305)

Application of Moneys

If available moneys in the Debt Service Fund after any required transfers from the Redemption Fund are not sufficient on any day to pay all principal (including sinking fund installments, if any), redemption price and interest on the Outstanding Bonds then due or overdue, such moneys (other than any sum in the Redemption Fund irrevocably set aside for the redemption of particular Bonds or required to purchase Bonds under outstanding purchase contracts) shall, after payment of all charges and disbursements of the Trustee in accordance with the Agreement, be applied (in the order such funds are named in this paragraph) first to the payment of interest, including interest on overdue principal, in the order in which the same became due (pro rata with respect to interest which became due at the same time) and second to the payment of principal (including sinking fund installments, if any) and redemption premiums, if any, without regard to the order in which the same became due (in proportion to the amounts due). For this purpose interest on overdue principal shall be treated as coming due on the first day of each month. Whenever moneys are to be applied pursuant to the provisions described in this paragraph, such

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moneys shall be applied at such times, and from time to time, as the Trustee in its discretion shall determine, having due regard to the amount of such moneys available for application and the likelihood of additional moneys becoming available for such application in the future. Whenever the Trustee shall exercise such discretion it shall fix the date (which shall be the first of a month unless the Trustee shall deem another date more suitable) upon which such application is to be made, and upon such date interest on the amounts of principal paid on such date shall cease to accrue. The Trustee shall give such notice as it may deem appropriate of the fixing of any such date. When interest or a portion of the principal is to be paid on an overdue Bond, the Trustee may require presentation of the Bond for endorsement of the payment. (Section 307)

Payments by the Institution

Not later than the opening of business on the Business Day next preceding the date on which a payment of principal (including sinking fund installments, if any) or interest is due on the Bonds, the Institution shall pay to the Trustee for deposit in the Debt Service Fund an amount equal to such payment less the amount, if any, in the Debt Service Fund and available therefor.

At any time when any principal (including sinking fund installments, if any) of the Bonds is overdue, the Institution shall also have a continuing obligation to pay to the Trustee for deposit in the Debt Service Fund an amount equal to interest on the overdue principal. Redemption premiums, if any, shall not bear interest.

Payments by the Institution to the Trustee for deposit in the Debt Service Fund under the Agreement shall discharge the obligation of the Institution to the extent of such payments; provided, that if any moneys are invested in accordance with the Agreement and a loss results therefrom so that there are insufficient funds to pay principal (including sinking fund installments, if any) and interest on the Bonds when due, the Institution shall supply the deficiency. (Section 308)

Unconditional Obligation

To the extent permitted by law, the obligation of the Institution to make payments to the Issuer and the Trustee under the Agreement shall be absolute and unconditional, shall be binding and enforceable in all circumstances whatsoever, shall not be subject to setoff, recoupment or counterclaim and shall be a general obligation of the Institution to which the full faith and credit of the Institution are pledged. (Section 309)

Investments

Pending their use under the Agreement, moneys in the funds and accounts established pursuant to the Agreement may be invested by the Trustee in Permitted Investments (as defined below) maturing or redeemable at the option of the holder at or before the time when such moneys are expected to be needed and shall be so invested pursuant to written direction of the Institution if there is not then an Event of Default known to the Trustee, provided that the Institution shall not request, authorize or permit any investment that would cause any Bonds to be classified as “arbitrage bonds” as defined in IRC Section 148. Any investments shall be held by the Trustee as a part of the applicable fund and shall be sold or redeemed to the extent necessary to make payments or transfers or anticipated payments or transfers from such fund, subject to the notice provisions of the UCC to the extent applicable. In the absence of such investment direction by the Institution, the Trustee shall not be under any obligation to invest (or otherwise pay interest on) any funds held under the Agreement. The Trustee shall not be responsible for any loss on any Permitted Investment, to the extent the Trustee has acted at the written direction of the Institution with respect to such investment.

Except as set forth below, any interest realized on investments in any fund and any profit realized upon the sale or other disposition thereof shall be credited to the fund with respect to which they were earned and any loss shall be charged thereto. Earnings (which for this purpose include net profit and are after deduction of net loss) on proceeds from the sale of Bonds deposited in the Expense Fund shall be transferred to the Debt Service Fund not less often than quarterly. Earnings on the Redemption Fund shall be transferred to the Debt Service Fund and credited against payments otherwise required to be made thereto not less often than quarterly.

The term “Permitted Investments” means (A) Government or Equivalent Obligations; (B) “tax exempt bonds” as defined in IRC Section 150(a)(6), other than “specified private activity bonds” as defined in IRC Section 57(a)(5)(C), rated at least “AA” or “Aa2” by S&P and Moody’s, respectively, or the equivalent by any other nationally recognized rating agency, at the time of acquisition thereof, or shares of a so-called money market or mutual fund that do not constitute “investment property” within the meaning of IRC Section 148(b)(2), provided either that the fund has all of its assets invested in such “tax exempt bonds” of such rating quality or, if such obligations are not so rated, that the fund has comparable creditworthiness through insurance or otherwise and which fund is rated “Aam” or “AAm-G” if rated by S&P, at the time of acquisition thereof; (C) Obligations of any state or political subdivision thereof rated at least “AA-” and “Aa3” by S&P and Moody’s, respectively, at the time of acquisition thereof; (D) negotiable certificates of deposit maturing not more than two years after the date of purchase, and interest-bearing deposit accounts and other bank deposit products of a national association or state-chartered bank or a state or federal savings and loan association or by a state-licensed branch of a foreign bank, which (i) has assets of not less than \$1,000,000,000, provided that the senior debt obligations of the issuing institution are rated in the highest category by Moody’s or S&P at the time of acquisition thereof, or (ii) funds are guaranteed by the Federal Deposit Insurance Corporation, or (iii) funds are fully collateralized by Government or Equivalent Obligations; (E) bills of exchange or time drafts drawn on and accepted by a commercial bank (otherwise known as bankers acceptances), provided that such bankers acceptances may not exceed 180 days maturity, and provided further that the accepting bank has the highest short-term letter and numerical rating as provided by Moody’s or S&P at the time of acquisition thereof; (F) Repurchase Agreements; (G) (i) the Massachusetts Development Finance Agency Short Term Asset Reserve (STAR) Fund or any other similar fund established by, or on behalf of, the Issuer, which is rated “AAAm-G,” “AAAm” or “AAm” by S&P at the time of acquisition thereof, and (ii) money market funds which have a rating of “AAAm-G,” “AAAm” or “AAm” by S&P at the time of acquisition thereof, provided that the fund is registered under the Federal Investment Company Act of 1940 and whose shares are registered under the Federal Securities Act of 1933; (H) investment agreements with providers rated not lower than the second highest category (without regard to gradations within such category), at the time of acquisition thereof, by at least one nationally recognized rating agency, provided that if the investment agreement is guaranteed by a third party, then such rating requirement shall apply to the guarantor only, and provided further that if the provider is downgraded by one or more nationally recognized rating agency to below the second highest category, the agreement shall (i) be fully collateralized at 104% by Government or Equivalent Obligations or 105% by securities outlined in clause (J) of this definition of permitted investments, or (ii) terminate; (I) collateralized investment agreements with providers rated not lower than the third highest category (without regard to gradations within such category), at the time of acquisition thereof, by at least one nationally recognized rating agency, provided that if the investment agreement is guaranteed by a third party, then such rating requirement shall apply to the guarantor only, and provided further that in all cases such rating requirements shall apply only at the time the investment agreement is executed; (J) forward purchase and sale agreements with providers rated not lower than the third highest category (without regard to gradations within such category), at the time of acquisition thereof, by at least one nationally recognized rating agency, provided that if the investment agreement is guaranteed by a third party, then such rating requirement shall apply to the guarantor only, and provided further that in all cases such rating requirements shall apply only at the time the investment agreement is executed; (K) senior debt obligations and participation certificates issued by an agency or instrumentality established by an act of

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Congress, including but not limited to the Federal National Mortgage Association, Federal Home Loan Bank, Federal Home Loan Mortgage Corporation, Federal Farm Credit Bank System, Student Loan Marketing Association, World Bank or Federal Agricultural Mortgage Corporation (“Federal Agency Securities”), in each case rated not lower than the second highest category (without regard to gradations within such category), at the time of acquisition thereof, by at least one nationally recognized rating agency; (L) commercial paper that is rated at the time of purchase at least “A-1+” by S&P or “P-1” by Moody’s at the time of acquisition thereof and that matures not more than 270 days after the date of purchase; and (M) notes issued by corporate entities rated at least “AA-” and “Aa3” by S&P and Moody’s, respectively, at the time of acquisition thereof. The term “Repurchase Agreement” shall mean a written agreement under which a bank or trust company which has a capital and surplus of not less than \$50,000,000 or a government bond dealer reporting to, trading with, and recognized as a primary dealer by the Federal Reserve Bank of New York sells to, and agrees to repurchase from the Trustee obligations issued or guaranteed by the United States; provided that the market value of such obligations is at the time of entering into the agreement at least one hundred and three percent (103%) of the repurchase price specified in the agreement and that such obligations are segregated from the unencumbered assets of such bank or trust company or government bond dealer; and provided further that unless the agreement is with a bank or trust company, such agreement shall require the repurchase to occur on demand or on a date certain which is not later than one (1) year after such agreement is entered into and shall expressly authorize the Trustee to liquidate the purchased obligations in the event of the insolvency of the party required to repurchase such obligations or the commencement against such party of a case under the federal Bankruptcy Code or the appointment of or taking possession by a trustee or custodian in a case against such party under the Bankruptcy Code. Any such investments may be purchased from or through the Trustee. (Section 311)

The Project

Use of Project.

Institution Project Fund and Carrying Out the Project.

Upon the issuance of the Bonds, the Institution expects to hold the Bond proceeds in an Institution-established fund (the “Institution Project Fund”), which will be applied by the Institution to the repayment of the Commercial Paper and to the payment of Project Costs. The Institution shall invest the Institution Project Fund in Permitted Investments and shall apply a portion of the Institution Project Fund to the repayment of the Commercial Paper within ninety (90) days following the date of issuance of the Bonds and expects to spend the remainder of the amount in the Institution Project Fund on Project Costs within one year following the issuance of the Bonds. Contracts for carrying out the Project and acquisitions in connection therewith have been and shall be made by the Institution in its own name. No funds of the Issuer, other than the proceeds of the Bonds, shall be available to pay Project Costs. The Institution Project Fund shall be subject to the Rebate Provision.

Disbursements from the Institution Project Fund shall be made by the Institution to pay directly or to reimburse the Institution for Project Costs. By making a disbursement from the Institution Project Fund, the Institution confirms: (i) that it is for Project Costs that have not been the basis of a prior or contemporaneous disbursement or of a prior payment of an external loan or of a prior reimbursement of internal advances and that have not been paid from gifts or grants received by the Institution for the Project; that it is for work actually performed or material, equipment or other property actually supplied for the Project in accordance with the applicable plans and specifications; that it contains no amount entitled to be retained by the Institution for purposes other than Project Costs; and that to the extent it is for the reimbursement of Project Costs paid by the Institution before the date of issuance of the Bonds, such reimbursement is consistent with the representations and warranties made by the Institution in the Tax Certificate; and (ii) that the work and material, equipment or other property covered by the

requisition have been performed or delivered to the Institution and are in material accordance with all applicable building, zoning, land use, environmental protection, historical preservation, sanitary, safety and educational laws, rules and regulations, all applicable grant, reimbursement and insurance requirements and the provisions of this Agreement; and that all permits, licenses and approvals required for the items covered by the requisition have been obtained.

Compliance with Law. In the acquisition, construction, maintenance, improvement and operation of the Project, the Institution covenants that it has complied and will comply in all material respects with all applicable building, zoning, land use, environmental protection, historical preservation, sanitary, safety and educational laws, rules and regulations, and all applicable grant, reimbursement and insurance requirements, and will not permit a nuisance thereon; but it shall not be a breach of this subsection if the Institution fails to comply with such laws, rules, regulations and requirements (other than Chapter 21E of the Massachusetts General Laws, as amended) during any period in which the Institution is diligently and in good faith contesting the validity thereof.

Payment of Lawful Charges. The Institution shall make timely payment of all taxes and assessments and other municipal or governmental charges and all claims and demands for work, labor, services, materials or other objects which, if unpaid, might by law become a lien on the Project or any part thereof; but it shall not be a breach of this subsection if the Institution fails to pay any such item during any period in which the Institution is diligently and in good faith contesting the validity thereof, provided that the laws applicable to contesting its validity do not require payment thereof and proceedings for a refund.

Permitted Purposes. The Institution agrees that the Project shall be used only for the purposes described in the Act. The Institution acknowledges that it is fully familiar with the physical condition of the Project and that it is not relying on any representation of any kind by the Issuer or the Trustee concerning the nature or condition thereof. Neither the Issuer nor the Trustee shall be liable to the Institution or any other person for any latent or patent defect in the Project. The Institution further agrees that no part of the Project shall be used for any purpose which would cause the Issuer's financing and refinancing of the Project to constitute a violation of the First Amendment of the United States Constitution. In particular, the Institution agrees that no part of the Project, so long as it is owned or controlled by the Institution, shall be used for any sectarian instruction or as a place of religious worship or in connection with any part of a program of a school or department of divinity for any religious denomination; and any proceeds of any sale, lease, taking by eminent domain of the Project or other disposition thereof shall not be used for, or to provide a place for, such instruction, worship or program. (Section 401)

Repair and Current Expenses

The Institution agrees that it will maintain and repair the Project and keep the same in good and serviceable condition and in at least as good condition and repair (reasonable wear and tear and casualty loss excepted) as it was on the date the same was placed in service. The Institution shall pay all costs of maintaining and operating the Project. (Section 402)

Insurance

The Institution shall maintain insurance with insurance companies authorized to transact business in The Commonwealth of Massachusetts on such of its properties, in such amounts and against such risks as is customarily maintained by similar institutions of higher education operating in the area and promptly file with the Trustee upon request from time to time certificates of all such insurance. (Section 403)

APPENDIX C

Default and Remedies

Default by the Institution.

Events of Default; Default. “Event of Default” in the Agreement means any one of the events set forth below and “default” means any Event of Default without regard to any lapse of time or notice.

Debt Service. Any principal of, interest or redemption premium on the Bonds shall not be paid when due (whether at maturity, by acceleration, upon redemption or otherwise) or the Institution shall fail to make payment of principal or interest or payment of interest on overdue principal required of it under the Agreement when the same becomes due and payable.

Other Obligations. The Institution shall fail to make any other required payment to the Trustee, and such failure is not remedied within seven (7) days after written notice thereof is given by the Trustee or the Issuer to the Institution, or the Institution shall fail to perform its obligations under the Agreement to maintain insurance, and such failure is not remedied within seven (7) days after written notice thereof is given by the Trustee or the Issuer to the Institution; or the Institution shall fail to observe or perform any of its other agreements, covenants or obligations under the Agreement and such failure is not remedied within sixty (60) days after written notice thereof is given by the Trustee or the Issuer to the Institution.

Warranties. There shall be a material breach of warranty made in the Agreement by the Institution as of the date it was intended to be effective and the breach is not cured within sixty (60) days after written notice thereof is given by the Trustee or the Issuer to the Institution.

Voluntary Bankruptcy. The Institution shall commence a voluntary case under the federal bankruptcy laws, or shall become insolvent or unable to pay its debts as they become due, or shall make an assignment for the benefit of creditors, or shall apply for, consent to or acquiesce in the appointment of, or taking possession by, a trustee, receiver, custodian or similar official or agent for itself or any substantial part of its property.

Appointment of Receiver. A trustee, receiver, custodian or similar official or agent shall be appointed for the Institution or for any substantial part of its property and such trustee or receiver shall not be discharged within sixty (60) days.

Involuntary Bankruptcy. The Institution shall have an order or decree for relief in an involuntary case under the federal bankruptcy laws entered against it, or a petition seeking reorganization, readjustment, arrangement, composition, or other similar relief as to it under the federal bankruptcy laws or any similar law for the relief of debtors shall be brought against it and shall be consented to by it or shall remain undismissed for sixty (60) days.

Breach of Other Agreements. A breach shall occur (and continue beyond any applicable grace period) with respect to the payment of other indebtedness of the Institution for borrowed money with respect to loans exceeding \$50,000,000, or with respect to the performance of any agreement securing such other indebtedness or pursuant to which the same was issued or incurred, or an event shall occur with respect to provisions of any such agreement relating to matters of the character referred to in this paragraph, so that a holder or holders of such indebtedness or a trustee or trustees under any such agreement accelerates any such indebtedness; but an Event of Default shall not be deemed to be in existence or to be continuing under this clause (vii) if (A) the Institution is in good faith contesting the existence of such breach or event and if such acceleration is being stayed by judicial proceedings or (B) such breach or event is remedied and the acceleration is wholly annulled. The Institution shall notify the Issuer and the

Trustee of any such breach or event immediately upon the Institution's becoming aware of its occurrence and shall from time to time furnish such information as the Issuer or the Trustee may reasonably request for the purpose of determining whether a breach or event described in this clause (vii) has occurred and whether acceleration continues to be in effect.

Waiver. If the Trustee determines that a default has been cured before the entry of any final judgment or decree with respect to it, the Trustee may waive the default and its consequences, including any acceleration, by written notice to the Institution and shall do so, with the written consent of the Issuer, upon written instruction of the Owners of at least twenty-five percent (25%) in principal amount of the Outstanding Bonds. (Section 501)

Remedies for Events of Default. If an Event of Default occurs and is continuing:

Acceleration. The Trustee may by written notice to the Institution and the Issuer declare immediately due and payable the principal amount of the Outstanding Bonds and the payments to be made by the Institution therefor, and accrued interest on the foregoing, whereupon the same shall become immediately due and payable without any further action or notice.

If, at any time after such declaration and before the entry of a judgment or decree for payment of the money due, all amounts payable under the Agreement except principal and interest on the Bonds that are due solely by reason of such declaration and acceleration shall have been paid or provided for by deposit with the Trustee and all existing Events of Default shall have been cured, then, unless otherwise directed in writing by the registered owners of Bonds representing a majority of the principal amount of the Outstanding Bonds, the Trustee shall rescind and annul such declaration and acceleration, but no such rescission shall affect any subsequent Event of Default or the consequences thereof.

Rights as a Secured Party. The Trustee may exercise all of the rights and remedies of a secured party under the UCC with respect to the securities in the funds held by it under the Agreement, including the right to sell or redeem such securities and the right to retain the securities in satisfaction of the obligations of the Institution under the Agreement. Notice sent by registered or certified mail, postage prepaid, or delivered during business hours, to the Institution at least seven (7) days before an event under the UCC, or any successor provision of law shall constitute reasonable notification of such event. (Section 502)

Court Proceedings

The Trustee may enforce the obligations under the Agreement by legal proceedings for the specific performance of any covenant, obligation or agreement contained in the Agreement, whether or not an Event of Default exists, or for the enforcement of any other appropriate legal or equitable remedy, and may recover damages caused by any breach of the provisions of the Agreement, including (to the extent the Agreement may lawfully provide) court costs, reasonable attorneys' fees and other costs and expenses incurred in enforcing the obligations under the Agreement. (Section 503)

Revenues after Default

The proceeds from the exercise of the rights and remedies under the Agreement shall be remitted to the Trustee upon receipt and in the form received. After payment or reimbursement of the reasonable expenses of the Trustee and the Issuer in connection therewith, the same shall be allocated to the Bonds. The portion allocable to the Bonds shall be applied, first to the remaining obligations of the Institution under the Agreement (other than obligations to make payments to the Issuer for its own use) in such order as may be determined by the Trustee, and second, to any unpaid sums due the Issuer for its own use. Any surplus thereof shall be paid to the Institution. (Section 504)

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Remedies Cumulative

The rights and remedies under the Agreement shall be cumulative and shall not exclude any other rights and remedies allowed by law, provided there is no duplication of recovery. The failure to insist upon a strict performance of any of the obligations of the Institution or to exercise any remedy for any violation thereof shall not be taken as a waiver for the future of the right to insist upon strict performance by the Institution or of the right to exercise any remedy for the violation. (Section 505)

Resignation or Removal of the Trustee

The Trustee may resign on not less than thirty (30) days' notice given in writing to the Issuer, the Bondowners and the Institution, but such resignation shall not take effect until a successor has been appointed. The Trustee will promptly certify to the Issuer that it has mailed such notice to all Bondowners and such certificate will be conclusive evidence that such notice was given in the manner required by the Agreement. The Trustee may be removed upon thirty (30) days written notice (i) by written notice from the Owners of a majority in principal amount of the Outstanding Bonds to the Trustee, the Issuer and the Institution; (ii) with or without cause by the Institution with the approval of the Issuer if the Institution is not in default or (iii) with cause by the Issuer. (Section 604)

The Bondowners

Action by Bondowners. Any request, authorization, direction, notice, consent, waiver or other action provided by the Agreement to be given or taken by Bondowners may be contained in and evidenced by one or more writings of substantially the same tenor signed by the requisite number of Bondowners or their attorneys duly appointed in writing.

Any request, consent or vote of the Owner of any Bond shall bind all future Owners of such Bond. Bonds owned or held by or for the account of the Issuer or the Institution shall not be deemed Outstanding Bonds for the purpose of any consent or other action by Bondowners. (Section 801)

Proceedings by Bondowners. No Bondowner shall have any right to institute any legal proceedings for the enforcement of the Agreement or any applicable remedy under the Agreement, unless the Bondowners have directed the Trustee to act and furnished the Trustee indemnity as provided in the Agreement and have afforded the Trustee reasonable opportunity to proceed, and the Trustee shall thereafter fail or refuse to take such action.

Subject to the foregoing, any Bondowner may by any available legal proceedings enforce and protect its rights under the Agreement and under the laws of The Commonwealth of Massachusetts. (Section 802)

The Institution

Corporate Organization, Authorization and Powers. The Institution represents and warrants that it is a corporation duly organized on May 30, 1650 by act of the Colony of Massachusetts Bay confirmed, as amended, in the Constitution of 1780 of The Commonwealth of Massachusetts, with the power to enter into and perform the Agreement; that it is a nonprofit educational institution within the Commonwealth authorized by law to provide a program of education beyond the high school level and that by proper corporate action it has duly authorized the execution and delivery of the Agreement. The Institution further represents and warrants that the execution and delivery of the Agreement and the consummation of the transactions contemplated in the Agreement will not conflict with or constitute a breach of or default under any bond, indenture, note or other evidence of indebtedness of the Institution, the charter or by-laws of the Institution, any gifts, bequests or devises pledged to or received by the Institution, or any

contract, lease or other instrument to which the Institution is a party or by which it is bound or cause the Institution to be in violation of any applicable statute or rule or regulation of any governmental authority. (Section 901)

Tax Matters. The Institution represents and warrants that (i) it is an organization described in Section 501(c)(3) of the IRC and it is not a “private foundation” as defined in Section 509 of the IRC; (ii) it has received letters from the Internal Revenue Service to that effect; (iii) such letters have not been modified, limited or revoked; (iv) it is in compliance with all terms, conditions and limitations, if any, contained in such letters; and (v) it is exempt from federal income taxes under Section 501(a) of the IRC. (b) The Institution shall not take or omit to take any action if such action or omission would (i) cause the Bonds to be “arbitrage bonds” under Section 148 of the IRC, including, without limitation, as a result of computing the yield on any investment acquired with Bond proceeds other than on the basis of the “fair market value” (within the meaning of Treas. Reg. §1.148-5(d)(6)) of such investment at the time of acquisition, (ii) cause the Bonds to not meet any of the requirements of Section 149 of the IRC, or (iii) cause the Bonds to cease to be “qualified 501(c)(3) bonds” under Section 145 of the IRC. Without limiting the foregoing, the Institution shall not permit the \$150,000,000 nonhospital bond limitation of IRC §145(b) to be exceeded. To the extent consistent with its status as a nonprofit educational institution, the Institution agrees that it will not take any action or omit to take any action if such action or omission would cause any revocation or adverse modification of such federal income tax status of the Institution. Partly in furtherance of the foregoing, the Issuer and the Institution are entering into the Tax Certificate with respect to matters of federal tax law pertaining to the Bonds issued under the Agreement. (Section 902)

Securities Law Status. The Institution represents and warrants that it is an organization organized and operated exclusively for charitable purposes and not for pecuniary profit; and that no part of its net earnings inures to the benefit of any person, private stockholder or individual, all within the meaning of the Securities Act of 1933, as amended. The Institution shall not take any action or omit to take any action if such action or omission would change its status as set forth in this paragraph. (Section 903)

Annual Reports and Other Current Information. The Institution shall from time to time render such other reports concerning the condition of the Project or compliance with the Agreement as the Issuer or the Trustee may reasonably request. Not later than March 1 of each year, the Institution shall furnish to the Trustee and the Issuer, and to Bondowners requesting the same, copies of its audited financial statements unless such audited financial statements are available for public access on the Electronic Municipal Market Access (“EMMA”) website or the Institution’s website. If such statements are not so available, then copies of the reports and statements required to be filed with the Trustee pursuant to this paragraph shall be filed with the Trustee in sufficient quantity to permit the Trustee to retain at least one copy for inspection by Bondowners and to permit the Trustee to mail a copy to each Bondowner who requests it. The Trustee shall maintain a list of Bondowners who have made such a request. The Institution shall furnish to the agencies rating the Bonds such information as they may reasonably require for current reports to their subscribers. The Trustee shall have no obligation or duty to review any financial statements (audited or otherwise) filed with it and shall not be deemed to have notice of the content of such statements or a default based on such content and shall have no obligation or duty to verify the accuracy of such statements. (Section 904)

Maintenance of Corporate Existence. The Institution shall maintain its existence as a nonprofit corporation qualified to do business in Massachusetts and shall not dissolve, dispose of or spin off all or substantially all of its assets, or consolidate with or merge into another entity or entities, or permit one or more other entities to consolidate with or merge into it, except that it may consolidate with or merge into one or more other entities or permit one or more other entities to consolidate with or merge into it, or transfer all or substantially all of its assets to one or more other entities (and thereafter dissolve or not dissolve as it may elect), if (a) the surviving, resulting or transferee entity or entities each is a corporation

APPENDIX C

having the status and powers set forth in the Agreement, (b) the transaction does not result in a conflict, breach or default referred to in the Agreement, (c) the surviving, resulting or transferee entity or entities each (i) assumes by written agreement with the Issuer and the Trustee all the obligations of the Institution under the Agreement, (ii) notifies the Issuer and the Trustee of any change in the name of the Institution, and (iii) executes, delivers, registers, records and files such other instruments as the Issuer or the Trustee may reasonably require to confirm, perfect or maintain any security granted under the Agreement. (Section 905)

Amendment

The Agreement may be amended by the parties without Bondowner consent for any of the following purposes: (a) to subject additional property to the lien of the Agreement, (b) to provide for the establishment or amendment of a book entry system of registration for the Bonds through a securities depository (which may or may not be DTC), (c) to add to the covenants and agreements of the Institution or to surrender or limit any right or power of the Institution, or (d) to cure any ambiguity or defect, or to add provisions which are not inconsistent with the Agreement and which do not impair the security for the Bonds.

Except as provided in the foregoing paragraph, the Agreement may be amended only with the written consent of the Owners of at least a majority in principal amount of the Outstanding Bonds; provided, however, that no amendment of the Agreement may be made without the unanimous written consent of the affected Bondowners for any of the following purposes: (i) to extend the maturity of any Bond, (ii) to reduce the principal amount or interest rate of any Bond, (iii) to make any Bond redeemable other than in accordance with its terms, (iv) to create a preference or priority of any Bond or Bonds over any other Bond or Bonds, or (v) to reduce the percentage of the Bonds required to be represented by the Bondowners giving their consent to any amendment.

Any amendment of the Agreement shall be accompanied by an opinion of Bond Counsel (which shall include the Trustee as an addressee or shall expressly permit reliance by the Trustee) to the effect that the amendment (i) is permitted by the Agreement and (ii) will not adversely affect the exclusion of interest on the Bonds from gross income for federal income tax purposes.

When the Trustee determines that the requisite number of consents have been obtained for an amendment that requires Bondowner consent, it shall, within ninety (90) days, file a certificate to that effect in its records and mail notice to the Bondowners. No action or proceeding to invalidate the amendment shall be instituted or maintained unless it is commenced within sixty (60) days after such mailing. The Trustee will promptly certify to the Issuer that it has mailed such notice to all Bondowners and such certificate will be conclusive evidence that such notice was given in the manner required by the Agreement. A consent to an amendment may be revoked by a notice given by the Bondowner and received by the Trustee prior to the Trustee's certification that the requisite consents have been obtained. (Section 1001)

Defeasance

When there are in the Debt Service Fund and the Redemption Fund sufficient funds, or Government or Equivalent Obligations described in clause (i), (ii), (iii) or (v) of the definition thereof in such principal amounts, bearing interest at such rates and with such maturities as will provide sufficient funds to pay or redeem the Bonds in full, and when all the rights under the Agreement of the Issuer and the Trustee have been provided for, upon written notice from the Institution to the Issuer and the Trustee, the Bondowners shall cease to be entitled to any benefit or security under the Agreement except the right to receive payment of the funds deposited and held for payment and other rights which by their nature cannot be satisfied prior to or simultaneously with termination of the lien of the Agreement, the security

interests created by the Agreement (except in such funds and investments) shall terminate, and the Issuer and the Trustee shall execute and deliver such instruments as may be necessary to discharge the lien and security interests created under the Agreement; provided, however, that if any such Bonds are to be redeemed prior to the maturity thereof, the Trustee and the Institution, as applicable, shall have taken all action necessary to redeem such Bonds and notice of such redemption shall have been duly mailed in accordance with the Agreement or irrevocable instructions so to mail shall have been given to the Trustee. Upon such defeasance, the funds and investments required to pay or redeem the Bonds in full shall be irrevocably set aside for that purpose, subject, however, to the provisions of the Agreement regarding unclaimed moneys, and moneys held for defeasance shall be invested only as provided above in this section. To the extent allowed by applicable law, any funds or property held by the Trustee and not required for payment or redemption of the Bonds in full shall, after satisfaction of all the rights of the Issuer and the Trustee and after allowance for payment to the United States under IRC Section 148(b), be distributed to the Institution upon such indemnification, if any, as the Issuer or the Trustee may reasonably require. In connection with any advance refunding, the Issuer, the Institution and the Trustee may request a verification report or other evidence of sufficiency. (Section 202)

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28 State Street
 Boston, MA 02109-1775
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APPENDIX D

[PROPOSED FORM OF BOND COUNSEL OPINION]

[Delivery Date of Bonds]

Massachusetts Development Finance Agency
 99 High Street, 11th Floor
 Boston, MA 02110

\$207,830,000
 Massachusetts Development Finance Agency
 Revenue Bonds
 Harvard University Issue, Series 2022B (Green Bonds)
 Dated their Date of Delivery

We have acted as bond counsel to the Massachusetts Development Finance Agency (the “Agency”) in connection with the issuance by the Agency of the above-referenced bonds (the “Bonds”). In such capacity, we have examined the law and such certified proceedings and other papers as we have deemed necessary to render this opinion, including the Loan and Trust Agreement dated as of May 1, 2022 (the “Agreement”) among the Agency, President and Fellows of Harvard College (the “Institution”) and The Bank of New York Mellon Trust Company, N.A., as trustee (the “Trustee”).

As to questions of fact material to our opinion we have relied upon representations and covenants of the Agency and the Institution contained in the Agreement and in the certified proceedings and other certifications of public officials furnished to us, and certifications of officials of the Institution and others, without undertaking to verify the same by independent investigation.

The Bonds are issued pursuant to the Agreement. The Bonds are payable solely from funds to be provided therefor by the Institution pursuant to the Agreement. Under the Agreement, the Institution has agreed to make payments sufficient to pay when due the principal (including sinking fund installments) and purchase or redemption price of and interest on the Bonds. Such payments and other moneys payable to the Agency or the Trustee under the Agreement, including proceeds derived from any security provided thereunder (collectively the “Revenues”), and the rights of the Agency under the Agreement to receive the same (excluding, however, certain administrative fees, indemnification and reimbursements), are pledged and assigned by the Agency as security for the Bonds. The Bonds are payable solely from the Revenues.

► ALBANY ► BOSTON ► CHICAGO ► HARTFORD ► MANCHESTER ► NEW YORK ► PROVIDENCE

APPENDIX D

We express no opinion with respect to compliance by the Institution with applicable legal requirements with respect to the Agreement or in connection with the operation of the Project (as defined in the Agreement) being refinanced by the Bonds.

Reference is made to an opinion of even date of Ropes & Gray LLP, counsel to the Institution, with respect to, among other matters, the corporate existence of the Institution, the power of the Institution to carry out the Project, the power of the Institution to enter into and perform its obligations under the Agreement and the authorization, execution and delivery of the Agreement by the Institution. We have relied on such opinion with regard to such matters and to the other matters addressed therein, including, without limitation, the current qualification of the Institution as an organization described in Section 501(c)(3) of the Internal Revenue Code of 1986 (the "Code"). We note that such opinion is subject to the limitations and conditions described therein. Failure of the Institution to maintain its status as an organization described in Section 501(c)(3) of the Code or to use the Project in activities of the Institution that do not constitute unrelated trades or businesses of the Institution within the meaning of Section 513 of the Code may result in interest on the Bonds being included in gross income for federal income tax purposes, possibly from the date of issuance of the Bonds.

Based on our examination, we are of the opinion, under existing law, as follows:

1. The Agency is a duly created and validly existing body corporate and politic and a public instrumentality of The Commonwealth of Massachusetts with the power to enter into and perform the Agreement and to issue the Bonds.
2. The Agreement has been duly authorized, executed and delivered by the Agency and is a valid and binding obligation of the Agency enforceable against the Agency. As provided in Chapter 23G of the General Laws of The Commonwealth of Massachusetts, the Agreement creates a valid lien on the Revenues and on the rights of the Agency or the Trustee on behalf of the Agency to receive Revenues under the Agreement (except certain rights to indemnification, reimbursements and fees).
3. The Bonds have been duly authorized, executed and delivered by the Agency and are valid and binding special obligations of the Agency, payable solely from the Revenues.
4. Interest on the Bonds is excluded from the gross income of the owners of the Bonds for federal income tax purposes. In addition, interest on the Bonds is not a specific preference item for purposes of the federal alternative minimum tax. In rendering the opinions set forth in this paragraph, we have assumed compliance by the Agency and the Institution with all requirements of the Code that must be satisfied subsequent to the issuance of the Bonds in order that interest thereon be, and continue to be, excluded from gross income for federal income tax purposes. The Institution and, to the extent necessary, the Agency have covenanted in the Agreement to comply with all such requirements. Failure by the Agency or the Institution to comply with certain of such requirements may cause interest on the Bonds to become included in gross income for federal income tax purposes.

APPENDIX D

retroactive to the date of issuance of the Bonds. We express no opinion regarding any other federal tax consequences arising with respect to the Bonds.

5. Interest on the Bonds and any profit on the sale of the Bonds are exempt from Massachusetts personal income taxes and the Bonds are exempt from Massachusetts personal property taxes. We express no opinion regarding any other Massachusetts tax consequences arising with respect to the Bonds or any tax consequences arising with respect to the Bonds under the laws of any state other than Massachusetts.

This opinion is expressed as of the date hereof, and we neither assume nor undertake any obligation to update, revise, supplement or restate this opinion to reflect any action taken or omitted, or any facts or circumstances or changes in law or in the interpretation thereof, that may hereafter arise or occur, or for any other reason.

The rights of the holders of the Bonds and the enforceability of the Bonds and the Agreement may be subject to bankruptcy, insolvency, reorganization, moratorium and other similar laws affecting creditors' rights heretofore or hereafter enacted to the extent constitutionally applicable, and their enforcement may also be subject to the exercise of judicial discretion in appropriate cases.

HINCKLEY, ALLEN & SNYDER LLP

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APPENDIX E

FORM OF CONTINUING DISCLOSURE AGREEMENT

This Continuing Disclosure Agreement (the “Disclosure Agreement”) is executed and delivered by President and Fellows of Harvard College (the “Institution”) and The Bank of New York Mellon Trust Company, N.A. (the “Trustee”) in connection with the issuance of \$207,830,000 Massachusetts Development Finance Agency Revenue Bonds, Harvard University Issue, Series 2022B (Green Bonds) (the “Bonds”). The Bonds are being issued pursuant to a Loan and Trust Agreement dated as of May 1, 2022 among the Massachusetts Development Finance Agency (the “Issuer”), the Trustee and the Institution (the “Agreement”), and the proceeds of the Bonds are being loaned by the Issuer to the Institution pursuant to the Agreement. The Institution and the Trustee covenant and agree as follows.

SECTION 1. Purpose of the Disclosure Agreement. This Disclosure Agreement is being executed and delivered by the Institution and the Trustee for the benefit of the Bondowners and in order to assist the Participating Underwriters (defined below) in complying with the Rule (defined below). The Institution and the Trustee acknowledge that the Issuer has undertaken no responsibility with respect to any reports, notices or disclosures provided or required under this Disclosure Agreement, and has no liability to any person, including any Bondowner, with respect to any such reports, notices or disclosures. The Trustee, except as provided in Section 3(c), has undertaken no responsibility with respect to any reports, notices or disclosures provided or required under this Disclosure Agreement, and has no liability to any person, including any Bondowner, with respect to any such reports, notices or disclosures except for its negligent failure to comply with its obligations under Section 3(c).

SECTION 2. Definitions. In addition to the definitions set forth in the Agreement, which apply to any capitalized term used in this Disclosure Agreement unless otherwise defined in this Section, the following capitalized terms shall have the following meanings:

“Annual Report” shall mean any Annual Report provided by the Institution pursuant to, and as described in, Sections 3 and 4 of this Disclosure Agreement.

“Bondowner” shall mean the registered owner of a Bond and any beneficial owner thereof, as established to the reasonable satisfaction of the Trustee or Institution.

“Dissemination Agent” shall mean any Dissemination Agent or successor Dissemination Agent designated in writing by the Institution and which has filed with the Institution, the Trustee and the Issuer a written acceptance of such designation. The same entity may serve as both Trustee and Dissemination Agent. The initial Dissemination Agent shall be the Trustee. In the absence of a third-party Dissemination Agent, the Institution shall serve as the Dissemination Agent.

“Financial Obligation” shall mean, for purposes of the Listed Events numbers 15 and 16 set out in Section 5(a) of this Disclosure Agreement, a (i) debt obligation; (ii) derivative instrument entered into in connection with, or pledged as security or a source of payment for, an existing or planned debt obligation; or (iii) guarantee of (i) or (ii). The term “Financial Obligation” shall not include municipal securities (as defined in the Securities Exchange Act of 1934, as amended) as to which a final official statement (as defined in the Rule) has been provided to the MSRB consistent with the Rule.

“Listed Events” shall mean any of the events listed in Section 5(a) of this Disclosure Agreement.

“MSRB” means the Municipal Securities Rulemaking Board established pursuant to Section 15B(b)(1) of the Securities Exchange Act of 1934, or any successor thereto or to the functions of the MSRB contemplated by this Disclosure Agreement. Filing information relating to the MSRB is set forth in Exhibit B hereto.

“Official Statement” shall mean the final official statement dated April 20, 2022 relating to the Bonds.

“Participating Underwriter” shall mean any of the original underwriters of the Bonds required to comply with the Rule in connection with offering of the Bonds.

“Rule” shall mean Rule 15c2-12(b)(5) adopted by the Securities and Exchange Commission under the Securities Exchange Act of 1934, as the same may be amended from time to time.

SECTION 3. Provision of Annual Reports.

(a) The Dissemination Agent, not later than March 1 of each year, commencing in 2023 (the “Filing Deadline”), shall provide to the MSRB an Annual Report which is consistent with the requirements of Section 4 of this Disclosure Agreement. Not later than five (5) Business Days prior to said date, the Institution (if it is not the Dissemination Agent) shall provide the Annual Report to the Dissemination Agent. In each case, the Annual Report may be submitted as a single document or as separate documents comprising a package, and may cross-reference other information as provided in Section 4 of this Disclosure Agreement; provided that the audited financial statements of the Institution may be submitted separately from, and at a later date than, the balance of the Annual Report if such audited financial statements are not available as of the date set forth above. If the Dissemination Agent submits the audited financial statements of the Institution at a later date, it shall provide unaudited financial statements by the above-specified deadline and shall provide the audited financial statements as soon as practicable after the audited financial statements become available. The Institution shall submit the audited financial statements to the Dissemination Agent and the Trustee as soon as practicable after they become available and the Dissemination Agent shall submit the audited financial statements to the MSRB as soon as practicable thereafter. The Institution shall provide a copy of the Annual Report to the Issuer and the Trustee.

(b) The Dissemination Agent shall file a report with the Institution, the Issuer and the Trustee certifying that the Annual Report has been provided pursuant to this Disclosure Agreement and stating the date it was provided (the “Compliance Certificate”); such report shall include a certification from the Institution that the Annual Report complies with the requirements of this Disclosure Agreement.

(c) If the Trustee has not received a Compliance Certificate by the Filing Deadline, the Trustee shall send, and the Institution hereby authorizes and directs the Trustee to submit on its behalf, a notice to the MSRB in substantially the form attached as Exhibit A.

(d) If the Dissemination Agent has not provided the Annual Report to the MSRB by the Filing Deadline, the Institution shall send, or cause the Dissemination Agent to send, a notice substantially in the form of Exhibit A irrespective of whether the Trustee submits such notice.

SECTION 4. Content of Annual Reports. The Institution’s Annual Report shall contain or incorporate by reference the following:

(a) Quantitative information for the preceding fiscal year of the type presented under the heading captioned “Student Applications and Enrollment” in Appendix A to the Official Statement.

(b) General information with respect to endowment assets, and income and expenses as found in Appendix B to the Official Statement.

In the event the Borrower's audited financial statements provided pursuant to Section 3 of this Disclosure Agreement contain any of the information described in clauses (a) and (b) above, the requirement of this Section 4 shall be deemed to be satisfied with respect to including such information in the Borrower's Annual Report.

The financial statements provided pursuant to Sections 3 and 4 of this Disclosure Agreement shall be prepared in conformity with generally accepted accounting principles, as in effect from time to time. Any or all of the items listed above may be incorporated by reference from other documents, including official statements of debt issues with respect to which the Institution is an "obligated person" (as defined by the Rule), which (i) are available to the public on the MSRB Internet Web site, or (ii) have been filed with the Securities and Exchange Commission. The Institution shall clearly identify each such other document so incorporated by reference.

SECTION 5. Reporting of Significant Events.

(a) This Section 5 shall govern the giving of notices of the occurrence of any of the following events:

1. Principal and interest payment delinquencies;
2. Non-payment related defaults, if material;
3. Unscheduled draws on debt service reserves reflecting financial difficulties;
4. Unscheduled draws on credit enhancements reflecting financial difficulties;
5. Substitution of credit or liquidity providers, or their failure to perform;
6. Adverse tax opinions, the issuance by the Internal Revenue Service of proposed or final determinations of taxability, Notices of Proposed Issue (IRS Form 5701-TEB) or other material notices of determinations with respect to the tax status of the Bonds, or other material events affecting the tax status of the Bonds;
7. Modifications to rights of Bondowners, if material;
8. Bond calls, if material, and tender offers;
9. Defeasances;
10. Release, substitution, or sale of property securing repayment of the Bonds, if material;
11. Rating changes;

12. Bankruptcy, insolvency, receivership or similar event of the Institution;¹

13. The consummation of a merger, consolidation, or acquisition involving the Institution or the sale of all or substantially all of the assets of the Institution, other than in the ordinary course of business, the entry into a definitive agreement to undertake such an action or the termination of a definitive agreement relating to any such actions, other than pursuant to its terms, if material;

14. Appointment of a successor or additional trustee or the change of name of the Trustee, if material;

15. Incurrence of a Financial Obligation of the Institution, if material, or agreement to covenants, events of default, remedies, priority rights, or other similar terms of a Financial Obligation of the Institution, any of which affect security holders, if material; and

16. Default, event of acceleration, termination event, modification of terms, or other similar events under the terms of a Financial Obligation of the Institution, any of which reflect financial difficulties.

(b) Upon the occurrence of a Listed Event, the Institution shall, in a timely manner not in excess of ten (10) business days after the occurrence of the event, file or cause to be filed a notice of such occurrence with the MSRB. The Institution shall provide a copy of each such notice to the Issuer and the Trustee. The Dissemination Agent, if other than the Institution, shall have no duty to file a notice of an event described hereunder unless it is directed in writing to do so by the Institution, and shall have no responsibility for verifying any of the information in any such notice or determining the materiality of the event described in such notice.

SECTION 6. Transmission of Information and Notices. Unless otherwise required by law, all notices, documents and information provided to the MSRB shall be provided in electronic format as prescribed by the MSRB and shall be accompanied by identifying information as prescribed by the MSRB.

SECTION 7. Termination of Reporting Obligation. The Institution's obligations under this Disclosure Agreement shall terminate upon the defeasance, prior redemption or payment in full of all of the Bonds or upon delivery to the Trustee of an opinion of counsel expert in federal securities laws selected by the Institution to the effect that compliance with this Disclosure Agreement no longer is required by the Rule. If the Institution's obligations under the Agreement are assumed in full by some other entity, such person shall be responsible for compliance with this Disclosure Agreement in the same manner as if it were the Institution and the original Institution shall have no further responsibility hereunder.

SECTION 8. Dissemination Agent. The Institution may, from time to time with written notice to the Trustee and the Issuer appoint or engage a third-party Dissemination Agent to assist it in carrying out its obligations under this Disclosure Agreement, and may, with written notice to the Trustee and the

¹ For the purposes of this Listed Event, the Listed Event is considered to occur when any of the following occur: the appointment of a receiver, fiscal agent or similar officer for the Institution in a proceeding under the U.S. Bankruptcy Code or in any other proceeding under state or federal law in which a court or governmental authority has assumed jurisdiction over substantially all of the assets or business of the Institution, or if such jurisdiction has been assumed by leaving the existing governing body and officials or officers in possession but subject to the supervision and orders of a court or governmental authority, or the entry of an order confirming a plan of reorganization, arrangement or liquidation by a court or governmental authority having supervision or jurisdiction over substantially all of the assets or business of the Institution.

Issuer, discharge any such third-party Dissemination Agent, with or without appointing a successor Dissemination Agent. The Dissemination Agent (if other than the Institution) may resign upon 30 days' written notice to the Institution, the Trustee and the Issuer.

SECTION 9. Amendment; Waiver. Notwithstanding any other provision of this Disclosure Agreement, the Institution and the Trustee may amend this Disclosure Agreement (and, subject to the last sentence of this Section 9, the Trustee shall agree to any amendment so requested by the Institution) and any provision of this Disclosure Agreement may be waived, if such amendment or waiver is supported by an opinion of counsel expert in federal securities laws acceptable to the Institution to the effect that such amendment or waiver would not, in and of itself, violate the Rule. Without limiting the foregoing, the Institution and the Trustee may amend this Disclosure Agreement if (a) such amendment is made in connection with a change in circumstances that arises from a change in legal requirements, change in law, or change in the identity, nature or status of the Institution or of the type of business conducted by the Institution, (b) this Disclosure Agreement, as so amended, would have complied with the requirements of the Rule at the time the Bonds were issued, taking into account any amendments or interpretations of the Rule, as well as any change in circumstances; and (c) (i) the Trustee receives an opinion of counsel expert in federal securities laws to the effect that, the amendment does not materially impair the interests of the Bondowners or (ii) the amendment is consented to by the Bondowners as though it were an amendment to the Agreement pursuant to Section 1001 of the Agreement. The annual financial information containing the amended operating data or financial information will explain, in narrative form, the reasons for the amendment and the impact of the change in the type of operating data or financial information being provided. Neither the Trustee nor the Dissemination Agent shall be required to accept or acknowledge any amendment of this Disclosure Agreement if the amendment adversely affects its respective rights or immunities or increases its respective duties hereunder.

SECTION 10. Additional Information. Nothing in this Disclosure Agreement shall be deemed to prevent the Institution from disseminating any other information, using the means of dissemination set forth in this Disclosure Agreement or any other means of communication, or including any other information in any Annual Report or notice of occurrence of a Listed Event, in addition to that which is required by this Disclosure Agreement. If the Institution chooses to include any information in any Annual Report or notice of occurrence of a Listed Event in addition to that which is specifically required by this Disclosure Agreement, the Institution shall have no obligation under this Disclosure Agreement to update such information or include it in any future Annual Report or notice of occurrence of a Listed Event.

SECTION 11. Default. In the event of a failure of the Institution or the Dissemination Agent to comply with any provision of this Disclosure Agreement, the Trustee may (and, at the request of Bondowners representing at least 25% in aggregate principal amount of Outstanding Bonds, shall), take such actions as may be necessary and appropriate, including seeking specific performance by court order, to cause the Institution or the Dissemination Agent, as the case may be, to comply with its obligations under this Disclosure Agreement. Without regard to the foregoing, any Bondowner may take such actions as may be necessary and appropriate, including seeking specific performance by court order, to cause the Institution or the Dissemination Agent, as the case may be, to comply with its obligations under this Disclosure Agreement. A default under this Disclosure Agreement shall not be deemed an Event of Default under the Agreement, and the sole remedy under this Disclosure Agreement in the event of any failure of the Institution or the Dissemination Agent to comply with this Disclosure Agreement shall be an action to compel performance.

SECTION 12. Duties, Immunities and Liabilities of Trustee and Dissemination Agent. As to the Trustee, Article VI of the Agreement is hereby made applicable to this Disclosure Agreement as if this Disclosure Agreement were (solely for this purpose) contained in the Agreement. In the event that the

Trustee serves as Dissemination Agent, the same privileges and protections afforded to the Trustee under Article VI of the Agreement shall be equally applicable to the Trustee in the performance of its duties as Dissemination Agent hereunder. The Dissemination Agent (if other than the Institution) shall have only such duties as are specifically set forth in this Disclosure Agreement, and the Institution agrees to indemnify and save the Dissemination Agent (if other than the Institution), its officers, director, employees and agents, harmless against any loss, expense and liabilities which it may incur arising out of or in the exercise or performance of its powers and duties hereunder, including the costs and expenses (including attorneys' fees) of defending against any claim of liability, but excluding liabilities due to the Dissemination Agent's negligence or willful misconduct. The obligations of the Institution under this Section shall survive resignation or removal of the Dissemination Agent and payment of the Bonds. The Institution covenants that whenever it is serving as Dissemination Agent, it shall take any action required of the Dissemination Agent under this Disclosure Agreement. Neither the Trustee nor the Dissemination Agent (if other than the Institution) shall have a duty to review the Annual Report, nor shall they be deemed to have notice of the contents of such Annual Report or a default based on such content, nor shall they have a duty to verify the accuracy of such Annual Report.

The Trustee shall have no obligation under this Disclosure Agreement to report any information to the MSRB or any Bondowner. If an officer of the Trustee obtains actual knowledge of the occurrence of an event described in Section 5 hereunder, whether or not such event is material, the Trustee shall timely notify the Institution of such occurrence, provided, however, that any failure by the Trustee to give such notice to the Institution shall not affect the Institution's obligations under this Disclosure Agreement or give rise to any liability by the Trustee for such failure.

SECTION 13. Beneficiaries. This Disclosure Agreement shall inure solely to the benefit of the Institution, the Trustee, the Dissemination Agent, the Participating Underwriters and the Bondowners, and shall create no rights in any other person or entity.

SECTION 14. Disclaimer. No Annual Report or notice of a Listed Event filed by or on behalf of the Institution under this Disclosure Agreement shall obligate the Institution to file any information regarding matters other than those specifically described in Section 4 and Section 5 hereof, nor shall any such filing constitute a representation by the Institution or raise any inference that no other material events have occurred with respect to the Institution or the Bonds or that all material information regarding the Institution or the Bonds has been disclosed. The Institution shall have no obligation under this Disclosure Agreement to update information provided pursuant to this Disclosure Agreement except as specifically stated herein.

SECTION 15. Notices. Unless otherwise expressly provided, all notices to the Issuer, the Institution, the Trustee and the Dissemination Agent shall be in writing and shall be deemed sufficiently given if sent by registered or certified mail, postage prepaid, or delivered or sent by facsimile during business hours to such parties at the address specified in Section 1003 of the Agreement or, as to all of the foregoing, to such other address as the addressee shall have indicated by prior written notice to the party giving notice.

SECTION 16. Counterparts. This Disclosure Agreement may be executed in several counterparts, each of which shall be an original and all of which shall constitute but one and the same instrument.

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SECTION 17. Governing Law. This instrument shall be governed by the laws of the Commonwealth of Massachusetts

Date: _____, 2022

PRESIDENT AND FELLOWS OF HARVARD COLLEGE

By: _____
 Name:
 Title:

THE BANK OF NEW YORK MELLON
 TRUST COMPANY, N.A., as Trustee

By: _____
 Name:
 Title:

EXHIBIT A**NOTICE TO MSRB OF FAILURE TO FILE ANNUAL REPORT**

Name of Issuer: Massachusetts Development Finance Agency

Name of Bond Issue: Revenue Bonds, Harvard University Issue, Series 2022B (Green Bonds)

Name of Obligated Person: President and Fellows of Harvard College

Date of Issuance: _____, 2022

NOTICE IS HEREBY GIVEN that President and Fellows of Harvard College (the “Institution”) has not provided an Annual Report with respect to the above-named Bonds as required by the Continuing Disclosure Agreement dated _____, 2022 between the Institution and The Bank of New York Mellon Trust Company, N.A.

Dated: _____

THE BANK OF NEW YORK MELLON
TRUST COMPANY, N.A. on behalf of
PRESIDENT AND FELLOWS OF HARVARD
COLLEGE

cc: Institution

EXHIBIT B

Filing information relating to the Municipal Securities Rulemaking Board is as follows:

Municipal Securities Rulemaking Board
<http://emma.msrb.org>

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APPENDIX F
GREEN BONDS SECOND PARTY OPINION

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Second Party Opinion

EXECUTIVE SUMMARY

ISSUER

Massachusetts Development Finance Agency

OPINION ON

Revenue Bonds Harvard University Issue, Series 2022B (Green Bonds)

GREEN STANDARD AND CATEGORY



- Green Buildings

KEYWORDS

Low carbon buildings, LEED Platinum, LEED Gold, higher education, Living Building Challenge, energy efficiency, Massachusetts

EVALUATION DATE

April 6, 2022

SUMMARY

Kestrel Verifiers is of the opinion that the Massachusetts Development Finance Agency Revenue Bonds Harvard University Issue, Series 2022B (Green Bonds) ("Bonds") conform with the four core components of the Green Bond Principles 2021 as follows:

▪ Use of Proceeds

The Bonds will finance and refinance construction of the Science and Engineering Complex ("Complex") and renovations to Adams House student housing and Soldiers Field Park Harvard affiliate housing (collectively, the "Projects"). The housing renovation projects were designed to LEED Gold specifications, and Harvard will seek LEED Gold certification. The Complex is LEED Platinum and Living Building Challenge certified, and supports what we view as Harvard's holistic approach to sustainability. Based on this, we conclude that the Bonds align with the *Green Buildings* eligible project category under the Green Bond Principles.

▪ Process for Project Evaluation and Selection

The Projects advance Harvard's target to be fossil fuel-free by 2050 and adhere to Harvard's Green Building Standards. Harvard's capital planning process, climate action objectives, and commitment to positive societal impact informed the design and implementation of the Projects.

▪ Management of Proceeds

Proceeds from the Bonds will finance and refinance the Projects, refinance a portion of Harvard's commercial paper that provided original financing for the Projects, and pay costs of issuance. Harvard's Office of Treasury Management is responsible for overseeing and managing the flow of funds.

▪ Reporting

As part of continuing disclosure undertakings in connection with the Bonds, Harvard will submit continuing disclosures to the Municipal Securities Rulemaking Board ("MSRB"). This reporting will be done annually on the Electronic Municipal Market Access ("EMMA") system operated by the MSRB. The Projects are substantially complete (except for the second phase of Adams House, which is scheduled to be completed in February 2023) and Harvard does not intend to provide additional project updates in association with the issuance of the Bonds. Harvard tracks and regularly reports on a large range of impact metrics through its Sustainability Data Hub and an annual Sustainability Report available online.

- **Impact and Alignment with United Nations Sustainable Development Goals**

By financing and refinancing construction of the educational, research, and housing facilities which meet multiple green building standards, the Bonds support and advance several UN SDGs, including Goals 3: *Good Health and Well-Being*, 4: *Quality Education*, 7: *Affordable and Clean Energy*, 8: *Decent Work and Economic Growth*, and 13: *Climate Action*.



Second Party Opinion

Issuer:	Massachusetts Development Finance Agency
Issue Description:	Revenue Bonds Harvard University Issue, Series 2022B (Green Bonds)
Projects:	Science and Engineering Complex, Adams House and Soldiers Field Park Housing Renovations
Green Standard:	Green Bond Principles
Green Category:	Green Buildings
Keywords:	Low carbon buildings, LEED Platinum, LEED Gold, higher education, Living Building Challenge, energy efficiency, Massachusetts
Par:	\$207,830,000
Evaluation Date:	April 6, 2022

GREEN BONDS DESIGNATION

Kestrel Verifiers, an Approved Verifier accredited by the Climate Bonds Initiative, conducted an independent external review of the Massachusetts Development Finance Agency Revenue Bonds Harvard University Issue, Series 2022B (Green Bonds) ("Bonds") to evaluate conformance with the Green Bond Principles (June 2021) established by the International Capital Market Association.

This Second Party Opinion reflects our review of the uses and allocation of proceeds, and oversight and conformance of the Bonds with the Green Bond Principles. In our opinion, the Bonds are aligned with the four core components of the Green Bond Principles and qualify for Green Bonds designation.

ABOUT THE ISSUER

Harvard University ("Harvard" or the "University") in Cambridge, Massachusetts is one of the oldest universities in the US. Established in 1636, Harvard serves approximately 20,000 students and has more than 400,000 alumni globally.

Harvard has a robust sustainability commitment that includes goals to be fossil fuel-neutral by 2026 and to eliminate the use of fossil fuels to heat, cool, and power buildings and vehicles on its campus by 2050. The Harvard Management Company also intends to balance emissions associated with Harvard's endowment and achieve net zero emissions across its portfolio by 2050. Harvard achieved its inaugural climate goal, 2006-2016, a 30% absolute reduction in greenhouse gas emissions. Efforts to reduce environmental impacts have led to significant achievements. As of 2020, Harvard achieved LEED certification in 143 buildings, including 24 buildings certified LEED Platinum and 82 buildings certified LEED Gold and one building certified Living Building Challenge Materials, Equity and Beauty Petal. Harvard has made great strides in reducing energy and water usage as compared to its 2006 baseline. Operational efficiencies, building upgrades, and 2.5 megawatts of installed solar panels have reduced net energy use by 7% even though campus square footage grew by more than 12% over this time.¹

¹ "2020 Harvard Sustainability Report," Harvard University, accessed March 28, 2022, <https://report.green.harvard.edu/>. The net energy use reduction metric includes campus growth. Excluding growth, Harvard reduced energy use by 22% relative to the 2006 baseline.

Harvard established its Green Revolving Fund in 2002 to provide funding for high-performance campus design, operations, maintenance, and renewable energy. Eligible projects reduce Harvard's environmental impact and have a typical payback period of less than ten years. The Green Revolving Fund is currently \$12 million and has provided \$40 million in funding for more than 200 projects, which has resulted in an estimated \$8 million in cumulative energy savings each year.

ALIGNMENT TO GREEN STANDARDS²

Use of Proceeds

The Bonds will finance and refinance (i) construction of the Science and Engineering Complex ("Complex") and renovations to the Adams House and Soldiers Field Park housing (collectively, the "Projects"), (ii) refinance Harvard's outstanding commercial paper that provided a portion of the original financing for the Projects and (iii) pay costs of issuance. The Projects are designed to meet the Harvard Green Building Standard, including achieving at least LEED Gold certification. The Complex is LEED Platinum and Living Building Challenge certified and supports Harvard's holistic approach to sustainability and wellness. The Projects are eligible projects as defined by the Green Bond Principles in the project category of *Green Buildings*.



Science and Engineering Complex Construction

Construction of the Science and Engineering Complex in Allston, a Boston neighborhood across the Charles River from Harvard's Cambridge campus, was completed in 2020. The Complex is LEED Platinum certified and the largest building and first research laboratory in the world to achieve Living Building Challenge Certification with Petals in Materials, Beauty, and Equity.³ The 544,000 square foot Complex incorporates a variety of green building features to optimize energy efficiency and performance, conserve water, and provide healthier research and learning spaces. Four large lecture halls, faculty offices, active learning labs, an engineering library, and a makerspace dedicated to student clubs and engineering related projects support student learning. The building includes features to mitigate impacts of physical climate risk. The Complex is designed to withstand storm surge flooding and alleviate the impact of stormwater events up to, and including, a 100-year storm. Bioretention basins and swales capture rainwater and direct it into a 78,000-gallon rainwater tank for reuse (e.g., toilet flushing, landscape irrigation). The space surrounding the Complex features a sustainable, multi-modal transportation hub to connect people and communities including bike infrastructure and access to an expanded shuttle bus system with electric buses. Access to multi-modal transport, including bike infrastructure, and access to a fully electric shuttle bus enhance the Complex's sustainability.

The eight-story building is equipped with state-of-the-art energy efficiency and water conservation features including:

- High-efficiency HVAC system with heat recovery
- High-performance building envelope and operable windows
- Automated lighting systems
- New shading system to shield or allow solar heat gain depending on the season while maximizing daylight
- Lab ventilation systems which can be adjusted locally to reduce energy while ensuring safety
- Solar-ready
- Solar thermal hot water system
- Reclaimed water for toilet flushing and irrigation
- Bioswales to retain and convey stormwater and reduce pollutants in runoff

² Green Bonds are any type of bond instrument where the proceeds will be exclusively applied to finance or refinance eligible Green Projects which are aligned with the four core components of ICMA's Green Bond Principles.

³ Living Building Challenge Petal Certification is a sustainability certification administered by the International Living Future Institute ("ILFI"). The organization's mission is "to lead the transformation toward a civilization that is socially just, culturally rich, and ecologically restorative." To achieve the Petal Certifications, the SEC demonstrates achievement in the following categories, or "petals" as they are known within the ILFI framework: Materials, Beauty, and Equity.

Prior to construction of the SEC, Harvard made a commitment to ensure procurement of building materials to reduce the use of building products with hazardous chemicals. Harvard evaluated over 6,000 building materials, ranging from wire coatings to furniture fabrics to lighting fixtures and eventually approved and selected 1,700 products that both comply with the Living Building Challenge Red List⁴ and meet the requirements of Harvard's Healthier Building Academy.⁵ Harvard chose materials and suppliers based on the health impacts of their products to ensure the well-being of students, while encouraging companies to improve transparency.

Adams House and Soldiers Field Park House Renewal

Located in Cambridge, Adams House was initially constructed in the 1890s and is regarded as one of Harvard's most historic houses. Renovations for Adams House, which includes seven buildings, is on track to achieve LEED Gold certification and is being completed in phases. Phase 1 of renovations was completed in 2020 and Phase 2 is currently in progress. Harvard's goal for this project is to significantly improve energy efficiency and increase climate resilience of the buildings, while preserving historic attributes of the structures.

A portion of the Bond proceeds will refinance renovations to Soldiers Field Park, a multi-family complex located in Allston which provides graduate student housing. The apartment complex consists of four buildings with 459 units ranging from studios to four-bedroom units and features amenities such as a childcare center, outdoor play area, in-unit washer and dryers, and electric appliances. Renovations for Soldiers Field Park began in 2016 and the fourth and final building is nearing completion.

Both projects comply with the Harvard Green Building Code and include upgrades and additions such as:

- Indoor greenspaces to improve air quality
- More efficient HVAC systems
- LED lighting
- Healthier building materials
- Fixtures to reduce water use
- Efficient utility infrastructure including electrical, sprinklers, and plumbing

Climate Risk and Transition Alignment⁶

Mitigation of transition risk requires planning for the necessary structural changes to address climate change and the transition to a low-carbon economy, with recognition of the risks associated with inaction. The Projects financed by the Bonds address climate transition risks by maximizing energy efficiency, accounting for carbon emissions and equity in product supply chains, and prioritizing human health in campus facilities.

Direct emissions from fossil fuel combustion associated with heating, cooling and operating residential and commercial buildings accounts for approximately 29% of total US greenhouse gas emissions and approximately 27% of statewide greenhouse gas emissions in Massachusetts.^{7,8} The building sector in Massachusetts must achieve near-zero emissions by 2050 to align with the net-zero goal established in recent Commonwealth of Massachusetts climate policy.⁹ Harvard's decision to design and construct the

⁴ "The Red List," International Living Future Institute, accessed April 5, 2022, <https://living-future.org/declare/declare-about/red-list/>.

⁵ The Healthier Building Academy is a program at the Harvard T.H. Chan School of Public Health.

⁶ Climate change poses significant systemic risks to US financial systems and municipal issuers. These risks may broadly be divided into physical risk, transition risk and societal risk. Physical risk includes effects of climate change on physical assets, such as extreme weather events and sea level rise. Transition risk includes market and technology risks, reputational risks, policy risks and legal risks. Societal risk includes risk to stable democracies, risk to civil liberties and human rights, risk to labor supply, and risk to public health. Mitigation of transition risk requires planning for the necessary structural changes to address climate change and societal inequity with recognition of the risks associated with inaction. We refer to this as the just transition to a decarbonized economy, or the just transition.

⁷ Jessica Leung, "Decarbonizing U.S. Buildings," Center for Climate and Energy Solutions, July 2018 <https://www.c2es.org/document/decarbonizing-u-s-buildings/>.

⁸ "Buildings Sector Report: A Technical Report of the Massachusetts 2050 Decarbonization Roadmap Study," Cadmus Group, Arup, VEIC, Energy Futures Group, and Evolved Energy Research for the Commonwealth of Massachusetts, December 2020, <https://www.mass.gov/doc/building-sector-technical-report/download#:~:text=On%2Dsite%20combustion%20of%20fossil,year%20with%20official%20emissions%20data.&text=This%20is%20despite%20a%2016,Commonwealth's%20building%20stock%20since%201990.>

⁹ "An Act Creating a Next-Generation Roadmap for Massachusetts Climate Policy," Massachusetts Session Law 2021 Chapter 8, Approved by the Governor March 26, 2021, <https://malegislature.gov/Laws/SessionLaws/Acts/2021/Chapter8>.

Complex and renovate Adams House and Soldiers Field Park to robust green building standards aligns with Massachusetts' commitment to reduce greenhouse gas emissions in the building sector.

The Bonds also finance activities which align with a *just transition*, characterized by the equitable inclusion and accommodation of all individuals, with a special focus on disadvantaged groups who may be directly or indirectly affected by the structural changes necessary for the transition to a low-carbon economy. The Bonds support the just transition by prioritizing projects that will minimize environmental impacts of Harvard's operations and, in turn, minimize negative impacts on human health. Furthermore, Harvard's attentiveness and approach to the safe and transparent approach to material supply chain purchases at all levels of construction and renovation ensures the health and wellness of its students, staff, and faculty.

Process for Project Evaluation and Selection

Harvard's capital planning process, climate and sustainability action objectives, and commitment to positive societal impact informed the design and implementation of the Projects.

As part of the capital planning process, each of Harvard's 11 schools proposes project priorities and budgets to the Capital Project Review Committee, which evaluates proposed projects based on alignment with the Institutional Master Plan, budget constraints, and overall need. Sustainability, renewable energy, resilience, and responsible purchasing options are considered throughout planning and design. Harvard identified renovation of student housing and construction of the Complex as strategic priorities through its long-range capital planning process. Stakeholder input from students, researchers, and faculty was considered and incorporated into planning of the Projects.

The Projects exceed the minimum LEED Gold requirements of the University's Green Building Standards that were adopted in 2009 (and most recently updated in 2017) and incorporate energy efficient designs which are critical to Harvard becoming fossil fuel-neutral by 2026 and fossil fuel-free by 2050. Several areas of Harvard's Sustainability Plan are advanced by the Projects, including Emissions and Energy, Campus Operations, Health and Well-Being, and Culture and Learning.

The novel technologies to achieve energy efficiency in the Complex and the ambitious LEED Platinum and Living Building Challenge Petal certification have been a model for other campus buildings and in the wider community. A database of construction materials that was developed for the Complex has been used in multiple projects on campus and in the Greater Boston Area, including local public schools. The Projects advance Harvard's commitment to using research- and data-driven approaches to solving pressing environmental problems and accelerating the adoption of climate solutions far beyond the boundaries of the Harvard campus.

Management of Proceeds

Proceeds from the Bonds will finance and refinance the Projects, refinance Harvard's commercial paper program that provided a portion of the original financing for the Projects, and pay costs of issuance. After closing, a portion of the Bonds will be used immediately to reimburse Harvard for capital expenses of the Projects. Remaining proceeds, if any, will be held in the General Operating Account and tracked separately to finance the Projects.

Reporting

As part of continuing disclosure undertakings in connection with the Bonds, Harvard will submit continuing disclosures to the Municipal Securities Rulemaking Board ("MSRB"). The University will also provide reports in the event of material developments. This reporting will be done annually on the Electronic Municipal Market Access ("EMMA") system operated by the MSRB.

The Science and Engineering Complex and Soldiers Field Park renovation projects are substantially complete and have received LEED Platinum and Gold certifications, respectively.¹⁰ The first phase of the Adams House renovation project is substantially complete and Harvard is in the process of applying for LEED Gold certification. The second phase of the Adams House renovation project is in progress and the LEED Gold

¹⁰ US Green Building Council, Science and Engineering Complex, February 12, 2021, <https://www.usgbc.org/projects/science-and-engineering-complex>. US Green Building Council, Science and Engineering Complex, Soldiers Field Park Bldg 1 Renovation, December 2, 2021, <https://www.usgbc.org/projects/soldiers-field-park-bldg-1-renovation>.

certification is expected soon after the scheduled completion date in February 2023. Harvard does not intend to provide additional project updates in association with the issuance of the Bonds. Harvard tracks and regularly reports on a large range of impact metrics through its Sustainability Data Hub and annual Sustainability Report available online. The Sustainability Report is expected to include information on the green buildings financed by the Bonds and record of receipt of LEED certifications is available on the US Green Building Council's project database available at www.usgbc.org.

IMPACT AND ALIGNMENT WITH UN SDGS

The Projects address UN SDGs 3, 4, 7, 8 and 13 by financing energy efficient buildings that support student innovation and learning, as well as student housing improvements. Energy efficient buildings advance UN SDG Target 7.3. Development of the building materials database to screen product ingredients for toxic substances supports Target 3.9. The construction and improvement of research, educational, and student housing facilities advance Targets 4.3, 4.4 and 8.6. Consideration of physical climate risks and climate change scenarios in design of the Projects advances Target 13.1.

Full text of the Targets for Goals 3, 4, 7, 8 and 13 is available in Appendix A, with additional information available on the United Nations website: www.un.org/sustainabledevelopment.



3 GOOD HEALTH AND WELL-BEING 	Good Health and Well-Being (Target 3.9) <u>Possible Indicators</u> <ul style="list-style-type: none"> Number of products evaluated for hazardous ingredients Number of entities incorporating the building materials database into project planning
4 QUALITY EDUCATION 	Quality Education (Target 4.3, 4.4) <u>Possible Indicators</u> <ul style="list-style-type: none"> Number of students provided access to education Post-graduation employment rate
7 AFFORDABLE AND CLEAN ENERGY 	Affordable and Clean Energy (Target 7.3) <u>Possible Indicators</u> <ul style="list-style-type: none"> Energy use intensity reduction Avoided GHG emissions (CO₂-eq)
8 DECENT WORK AND ECONOMIC GROWTH 	Decent Work and Economic Growth (Target 8.6) <u>Possible Indicators</u> <ul style="list-style-type: none"> Number of youth (ages 15-24) expected to engage in employment, training or education at the bond-financed facilities
13 CLIMATE ACTION 	Climate Action (Target 13.1) <u>Possible Indicators</u> <ul style="list-style-type: none"> Reduction in percent of assets at risk as a result of climate resilience or adaptation features

CONCLUSION

Based on our independent external review, the Massachusetts Development Finance Agency Revenue Bonds Harvard University Issuer, Series 2022B conform, in all material respects, with the Green Bond Principles (2021) and are in complete alignment with the *Green Buildings* eligible project category. Harvard continues to demonstrate leadership in climate action by financing Projects that minimize environmental impact and plan for physical climate risks. Harvard has leveraged the LEED Gold housing renovations and the LEED Platinum Science and Engineering Complex to model innovative approaches to reducing environmental impacts.

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ABOUT KESTREL VERIFIERS



For over 20 years Kestrel has been a trusted consultant in sustainable finance. Kestrel Verifiers, a division of Kestrel 360, Inc. is a Climate Bonds Initiative Approved Verifier qualified to verify transactions in all asset classes worldwide. Kestrel is a US-based certified Women's Business Enterprise. For more information, visit kestrelverifiers.com.

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DISCLAIMER

This Opinion aims to explain how and why the discussed financing meets the ICMA Green Bond Principles based on the information which was available to us during the time of this engagement (March-April 2022) only. By providing this Opinion, Kestrel Verifiers is not certifying the materiality of the projects financed by the Green Bonds. It was beyond Kestrel Verifiers' scope of work to review for regulatory compliance and no surveys or site visits were conducted. Furthermore, we are not responsible for surveillance on the project or use of proceeds. Kestrel Verifiers relied on information provided by Harvard and publicly available information. The Opinion delivered by Kestrel Verifiers does not address financial performance of the Green Bonds or the effectiveness of allocation of its proceeds. This Opinion does not make any assessment of the creditworthiness of the Harvard, or its ability to pay principal and interest when due. This is not a recommendation to buy, sell or hold the Bonds. Kestrel Verifiers is not liable for consequences when third parties use this Opinion either to make investment decisions or to undertake any other business transactions. This Opinion may not be altered without the written consent of Kestrel Verifiers. Kestrel Verifiers reserves the right to revoke or withdraw this Opinion at any time. Kestrel Verifiers certifies that there is no affiliation, involvement, financial or non-financial interest in the Harvard or the projects discussed. We are 100% independent. Language in the offering disclosure supersedes any language included in this Second Party Opinion.

Use of the United Nations Sustainable Development Goal (SDG) logo and icons does not imply United Nations endorsement of the products, services or bond-financed activities. The logo and icons are not being used for promotion or financial gain. Rather, use of the logo and icons is primarily illustrative, to communicate SDG-related activities.



Appendix A.

UN SDG TARGET DEFINITIONS

Target 3.9

By 2030, substantially reduce the number of deaths and illnesses from hazardous chemicals and air, water and soil pollution and contamination

Target 4.3

By 2030, ensure equal access for all women and men to affordable and quality technical, vocational and tertiary education, including university

Target 4.4

By 2030, substantially increase the number of youth and adults who have relevant skills, including technical and vocational skills, for employment, decent jobs and entrepreneurship

Target 7.3

By 2030, double the global rate of improvement in energy efficiency

Target 8.6

By 2020, substantially reduce the proportion of youth not in employment, education or training

Target 13.1

Strengthen resilience and adaptive capacity to climate-related hazards and natural disasters in all countries

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